Electromechanical sensors for pressure control OsiSense XM

Catalogue



Simply easy!™



Electromechanical pressure and vacuum switches OsiSense XM

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Sensors for pressure control

OsiSense XM

Electromechanical pressure and vacuum switches

Type of installation Applications Fluids controlled Type of operation

Control circuits

Air, water, hydraulic oils, corrosive fluids, viscous products

Detection of a single threshold (fixed differential) Regulation between 2 thresholds (adjustable differential)







connections

Air, fresh water, corrosive fluids, viscous products, up to 160°C, depending on model Fluid characteristics - 1 bar...500 bar (- 14.5 psi...7250 psi) Dimensions of case (mm) Width x height x depth 35 x 68 x 75

46 x 68 x 85 1 CO single-pole, snap action 2 CO single-pole, simultaneous, snap action IP 66: switches with terminal IP 66: switches with terminal connections

Screw terminals: 1 entry tapped M20 x 1.5 mm for ISO cable gland **Electrical connection**

or tapped for n° 13 cable gland

Fluid connection G 1/4 (female) G 11/4" (female) for viscous products

XMLA XMLB XMLC Type reference

IP 65: switches with connector

18 to 69

Electromechanical pressure and vacuum switches with alternative tapped cable entries and/ or fluid entries: NPT etc. Please consult our Customer Care Centre.

Control circuits	
Air, water, hydraulic oils, corrosive fluids, viscous products	Air, hydraulic oils, corrosive fluids
Dual stage switches Detection at each threshold (fixed differential)	Regulation between 2 thresholds (adjustable differential)







Air, fresh water, corrosive fluids, viscous products, up to 160°C depending on model	Air, oils and other non corrosive fluids (-73+125°C)	Oils and other fluids (-30+125°C) Only oils, including synthetic oils, for certain models
- 1 bar500 bar (- 14.5 psi7250 psi)	0.7 bar131 bar (10.15 psi1900 psi)	69 bar340 bar (1000 psi4930 psi)
45 x 68 x 85	88 x 88 x 68	
2 CO single-pole, staggered, snap action	1 CO or 2 CO single-pole, snap action	
IP 66: switches with terminal connections	IP 65	
Screw terminals: 1 entry tapped M20 x 1.5 mm for ISO cable gland or tapped for n° 13 cable gland	Screw terminals: 1 entry tapped for n° 13 cable gland	
G 1/4 (female) G 1/4" (female) for viscous products		G 3/8 (female)





Other versions

Type of contacts







Sensors for pressure control

OsiSense XM

Electromechanical pressure switches

Regulation between 2 thresholds (adjustable differential)

Applications
Type of installation
Fluids controlled
Type of operation

Control circuits

Air, water



Fluid characteristics Air, fresh water, sea water (0...+ 70°C) 6 bar, 12 bar and 25 bar (87 psi, 174 psi and 362.5 psi) Dimensions of case (mm) Width x height x depth 57 x 78 x 97.5 Setting of switching points Internal screws External screws Type of contacts 1 CO single-pole, snap action Degree of protection **Electrical connection** Screw terminals: 2 entries tapped for n° 13 cable gland, one fitted with n° 13 cable gland, one fitted with blanking plug G 1/4 or 4 x G 1/4 (female) depending on model Fluid connection Type reference 89 Other versions Electromechanical pressure switches with alternative tapped cable entries and/or fluid entries:

ISO, NPT, etc. Please consult our Customer Care Centre.

Power circuits				
Water				Air, water
Detection of a single threshold (fixed differential)	Regulation between	n 2 thresholds (adjustable differenti	ial)	
Fresh water, sea water (0.	+70°C)			Air, fresh water, sea water (0+ 70°C)
4.6 bar (66.7 psi)		7 bar (101.5 psi)	10.5 bar (152.3 psi)	6 bar, 12 bar and 25 bar (87 psi, 174 psi and 362.5 psi)
73 x 73 x 102	72 x 77 x 106	72 x 73 x 102		57 x 78 x 97.5
Internal screws				
2 NC snap action				2 NC or 3 NC snap action
IP 20/IP 65				ID 54 as ID 65 december
IF 20/IP 65				IP 54 or IP 65 depending on model
Scrow terminals: 2 cable o	ntries with arommet or 2 ca	ble entries with n° 13 cable gland		Screw terminals: 2 entries
COLCA (CITIIIIIIII) 2. 2 CADIE E	manco with grominet of 2 ca	Die entries wittin 15 cable glatit		incorporating n° 13 cable gland or without cable gland,





G 1/4 or R 1/4 (female or male)

FTG•, FTG•NE

94 to 96



FSG●, FSG●NE

FYG22, FYG22NE

FYG32, FYG32NE

depending on model

98 to 107

G 1/4, G 3/8 or 4 x G 1/4

(female) depending on model

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Function

The function of pressure and vacuum switches is the control or regulation of pressure or vacuum levels in hydraulic or pneumatic systems.

They transform the pressure change into a digital electrical signal when the preset switching points are reached.

Switches for power circuits

Switches with power electrical contacts, either 2-pole or 3-pole, designed for direct switching of single-phase or 3-phase motors (pumps, compressors, etc.).

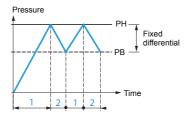
Switches for control circuits

Switches with standard electrical contacts, designed for control of contactors, relays, power valves, PLC inputs, etc.

Pressure switch operating principle

Detection of a single threshold

The switches for detection of a single threshold (fixed differential) have a single adjustable setting point (PH). The differential between the high and low points (PH - PB) depends upon the natural characteristics of the switch. It is not adjustable.



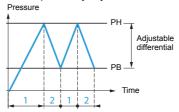
Example: contact schematics of XMLA

Adjustable valueNon adjustable value

PH = High point PB = Low point

Regulation between 2 thresholds

The switches for regulation between 2 thresholds (adjustable differential) have both a high point setting (PH) and a low point setting (PB). Both of these points can be independently adjusted.



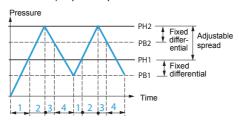
Example: contact schematics of XMLB

- Adjustable value

PH = High point PB = Low point

Detection of 2 thresholds

The dual stage switches, for detection at each threshold, have an adjustable high point setting for each stage (PH1 and PH2). Both of these points can be independently adjusted. For both stages, the differential between the high point and the low point (PH1 - PB1 and PH2 - PB2) depends upon the natural characteristics of the switch. It is not adjustable.



Example: contact schematics of XMLD

— Adjustable value
--- Non adjustable value

PH = High point PB = Low point

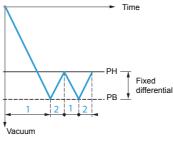


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Vacuum switch operating principle

Detection of a single threshold

The switches for detection of a single threshold (fixed differential) have a single adjustable setting point (PH). The differential between the high and low points (PH - PB) depends upon the natural characteristics of the switch. It is not adjustable.



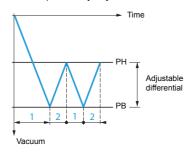
Example: contact schematics of XMLA

PH = High point PB = Low point

 Adjustable value --- Non adjustable value

Regulation between 2 thresholds

The switches for regulation between 2 thresholds (adjustable differential) have both a high point setting (PH) and a low point setting (PB). Both of these points can be independently adjusted.



Example: contact schematics of XMLB

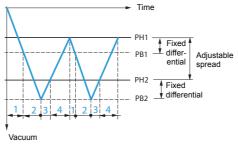
-- Adjustable value

PH = High point PB = Low point

Detection of 2 thresholds

The dual stage switches, for detection at each threshold, have an adjustable high point setting for each stage (PH1 and PH2). Both of these points can be independently adjusted.

For both stages, the differential between the high point and the low point (PH1 - PB1 and PH2 - PB2) depends upon the natural characteristics of the switch. It is not adjustable.



Example: contact schematics of XMLD



- Adjustable value --- Non adjustable value

PH = High point PB = Low point

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Terminology

Operating range

The difference between the minimum low point (PB) and the maximum high point (PH) setting values.

Size

Pressure switches and vacuum-pressure switches (vacu-pressure switches) Maximum value of the operating range.

Vacuum switches

Minimum value of the operating range.

Switching point on rising pressure (PH)

Pressure switches

The upper pressure setting at which the pressure switch will actuate the contacts on rising pressure.

Vacuum switches

The lower vacuum setting at which the vacuum switch will reset the contacts on rising pressure.

Switching point on falling pressure (PB)

The pressure at which the switch output changes state on falling pressure.

Switches with fixed differential

The lower point (PB) is not adjustable and is entirely dependent on the high point setting (PH) and the natural differential of the switch.

Switches with adjustable differential

The adjustable differential enables the independent setting of the lower point (PB).

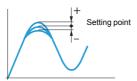
Differential

The difference between the switching point on rising pressure (PH) and the switching point on falling pressure (PB).

Spread

For dual stage switches, the spread indicates the difference between the 2 switching points on rising pressure (PH2 and PH1) and, for vacuum switches, the difference between the 2 switching points on falling pressure (PB2 and PB1).

Accuracy (switches with setting scale)



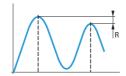
The tolerance between the point at which the switch actuates its contacts and the value indicated on the setting scale. Where very high setting accuracy is required (initial installation of the product), it is recommended to use separate measuring equipment (pressure gauge, etc.).



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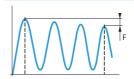
Terminology (continued)

Repeat accuracy (R)



The tolerance between two consecutive switching operations.

Drift (F)



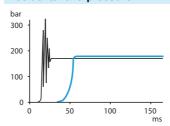
The tolerance of the switching point throughout the entire service life of the switch.

This is an accidental pressure surge of very short duration (a few milliseconds).

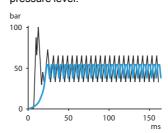
If accidental overpressures occur and their duration is less than 50 milliseconds, the pressure damping device incorporated

in the XML switches (sizes 10 bar and greater) will diminish the effect.

Accidental overpressure



Example 1: with destructive pressure level.



Example 2: with destructive pressure level and destructive pressure oscillations.

Without damping deviceWith damping device

Maximum permissible pressure per cycle (Ps)

A pressure switch can withstand this pressure, without detrimental effect, on each cycle throughout its service life.

Its minimum value is at least equal to 1.25 times the switch size.

Maximum permissible accidental pressure

The maximum accidental pressure is at least equal to 2.25 times the switch size.

Destruction pressure

The maximum guaranteed pressure that the switch will withstand before its destruction, i.e. bursting, rupturing, component failure, etc.

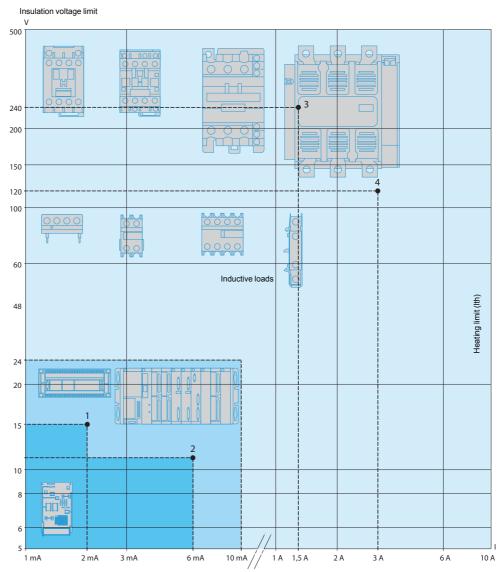
Its value is at least equal to 4.5 times the switch size.



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Application range of pressure and vacuum switches XML, XMA and XMX, for control circuits

On standard loads
Continuous duty, frequent switching.



- 1 Standard PLC input, type 1
- 2 Standard PLC input, type 2
- 3 Switching capacity conforming to IEC 60947-5-1, utilisation category AC-15, DC-13 B300 240 V 1.5 A

R300 250 V 0.1 A

4 Switching capacity conforming

to IEC 60947-5-1, utilisation category AC-15, DC-13 B300 120 V 3 A R300 125 V 0.22 A

PLC: Programmable Logic Controller

Pressure switches XMLA XMLB XMLC XMLD XMX, XMA XMLG XMLG XMLG

On small loads

The use of electromechanical pressure and vacuum switches with programmable logic controllers is becoming more predominant.

On small loads, the reliability of the switches maintain a failure rate of less than 1 for 100 million operating cycles.



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Selection of switch size

After establishing the type of switch required for the application (single threshold detection or regulation between 2 thresholds), the selection of its size will depend on the following criteria:

- □ the differential: difference between the high point (PH) and the low point (PB),
- □ the maximum pressure permissible per cycle,
- □ repeat accuracy, precision and minimum drift.

Examples of a fixed differential pressure switch selection, for detection of a single threshold

Main criterion: minimum differential

Example: for a selected high point (PH) of 7 bar



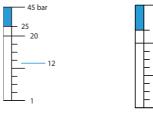
XMLA010 •••• XMLA020 •••• Differential = 0.5 bar Differential = 1 bar Select an XMLA010 •• • (the lowest size)

35 bar

XMLA035 •••• Differential = 2 bar

Main criterion: tolerance to overpressures

Example: for a selected high point (PH) of 12 bar



XMLA020 •••• Permissible accidental overpressure = 45 bar Select an XMLA035 •• • • (the highest size)

XMLA035 •••• Permissible accidental overpressure = 80 bar

- 80 bar

Main criterion: repeat accuracy, precision and minimum drift

Example: for a selected high point (PH) of 18 bar



As a general rule, working at the upper or lower limits of the operating range should be avoided.

XMLA035 •••• XMI A020

Adjustable from 1 to 20 bar Adjustable from 1.5 to 35 bar

Select an XMLA035

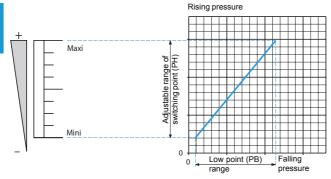
Units of pressure conversion table							
	psi	kg/cm²	bar	atm	mm Hg (Torr)	mm H ₂ O	Pa
1 psi =	1	0.07031	0.06895	0.06805	51.71	703.7	6895
1 kg/cm ² =	14.22	1	0.98066	0.96784	735.55	10 000	98 066
1 bar =	14.50	1.0197	1	0.98695	750.06	10 197	10 ⁵
1 atm =	14.70	1.0333	1.0132	1	760.0	10 333	101 325
1 mm Hg = (Torr)	0.01934	1.360 x 10 ⁻³	1.333 x 10 ⁻³	1.316 x 10 ⁻³	1	13.59	133.3
1 mm H ₂ O =	1.421 x 10 ⁻³	10-4	~10⁴	~ 10⁴	0.07361	1	∼9.80
1 Pa =	1.45 x 10 ⁻⁴	1.0197 x 10 ⁻⁵	10-5	9.8695 x 10 ⁻⁶	7.5 x 10 ⁻³	0.10197	1
Example: 1 bar = 14.50 psi = 10 ⁵ Pa							

Operating curves

Electromechanical pressure and vacuum switches

Fixed differential switches, for detection of a single threshold



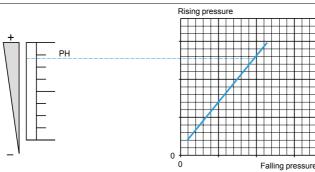


Defined by the difference between the minimum and maximum high point (PH) setting values.

For a high set point (PH), the lower point (PB) is fixed and cannot be adjusted.

For a low set point (PB1 or PB2), the higher point (PH1 or PH2) is fixed and cannot be adjusted.

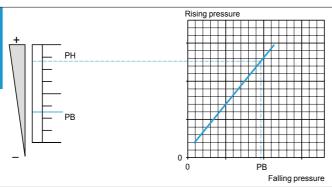
Switching point on rising pressure (PH)



The upper pressure setting at which the pressure or vacuum switch will actuate the contacts on rising pressure.

Adjustable throughout the range on rising pressure.

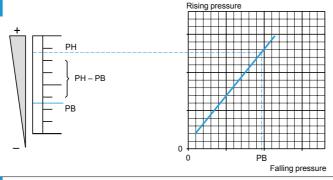
Switching point on falling pressure (PB)



The pressure at which the switch contact changes state on falling pressure.

The lower point (PB) is not adjustable and is entirely dependent on the high point setting (PH) and the natural differential of the switch.

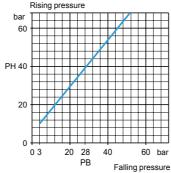
Differential



PH - PB = natural differential The difference between the switching point on rising pressure (PH) and the switching point on falling pressure (PB).

This point is not adjustable and therefore, the value of the differential is fixed. It is the natural differential of the switch (contact differential, friction, etc.).

Example



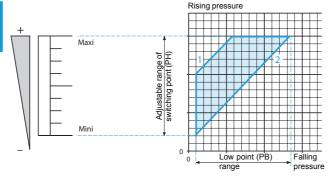
- Consider a switching point on rising pressure (PH) of 40 bar (set value at which the contact will change state on rising pressure).
- It can be seen that the switching point on falling pressure (PB) is 28 bar (fixed value at which the contact will return to its original state).

 Conclusion:

 \Box the differential will be 40 - 28 = 12 bar.

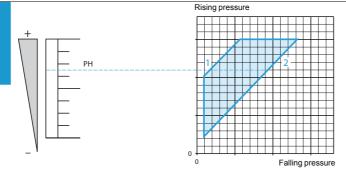
Adjustable differential switches, for regulation between 2 thresholds





Defined by the difference between the minimum and maximum high point (PH) setting values.

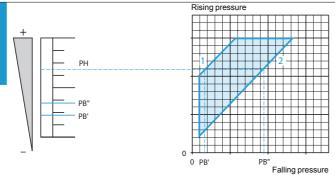
Switching point on rising pressure (PH)



The upper pressure setting at which the pressure or vacuum switch will actuate the contacts on rising pressure.

Adjustable throughout the range on rising pressure.

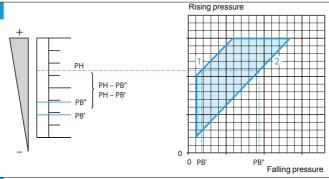
Switching point on falling pressure (PB)



The pressure at which the switch contact changes state on falling pressure.

The adjustable differential enables the independent setting of the lower point (PB).

Differential



Maximum differential

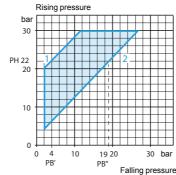
2 Minimum differential

Low point < High point PH - PB' = natural differential PH - PB" = minimum differential

The difference between the switching point on rising pressure (PH) and the switching point on falling pressure (PB).

Note: the low point can be set at any value between PB' and PB".

Example



- Consider a switching point on rising pressure (PH) of 22 bar (set value at which the contact will change state on rising pressure).
- It can be seen that the switching point on falling pressure (PB) can be between 4 and 19 bar inclusive (set value at which the contact will return to its original state). Conclusion:
- □ the maximum differential will be:22 4 = 18 bar,
- \Box the minimum differential will be: 22 19 = 3 bar.

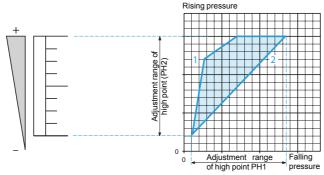


Operating curves (switching points on rising pressure)

Electromechanical pressure and vacuum switches

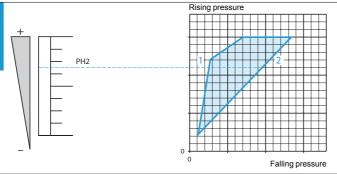
Dual stage, fixed differential switches, for detection at each threshold





Defined by the difference between the minimum and maximum high point setting values of each stage (PH1 and PH2).

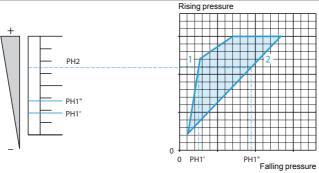
Switching point PH2 on rising pressure



The upper pressure setting at which the pressure or vacuum switch will actuate the contacts on rising pressure.

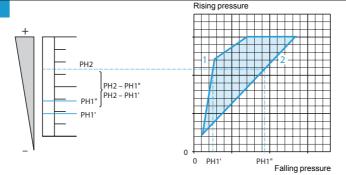
Adjustable throughout the range on rising pressure.

Switching point PH1 on rising pressure



The upper pressure setting at which the pressure or vacuum switch will actuate contact 1 on rising pressure.

Spread



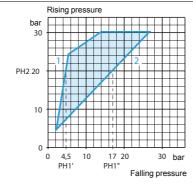
PH1 < PH2

PH2 - PH1' = maximum spread PH2 - PH1" = minimum spread

The difference between switching points PH2 and PH1 on rising pressure.

Note: switching point PH1 can be set at any value between PH1' and PH1".

Example:
Determining
switching
points on
rising
pressure for
the 2 stages



- Consider a 2nd stage switching point on rising pressure (PH2) of 20 bar (set value at which contact 2 will change state on rising pressure).
- It can be seen that the 1st stage switching point (PH1) can be set between 4.5 and 17 bar on rising pressure.

Conclusion:

 \Box the maximum spread will be: 20 - 4.5 = 15.5 bar,

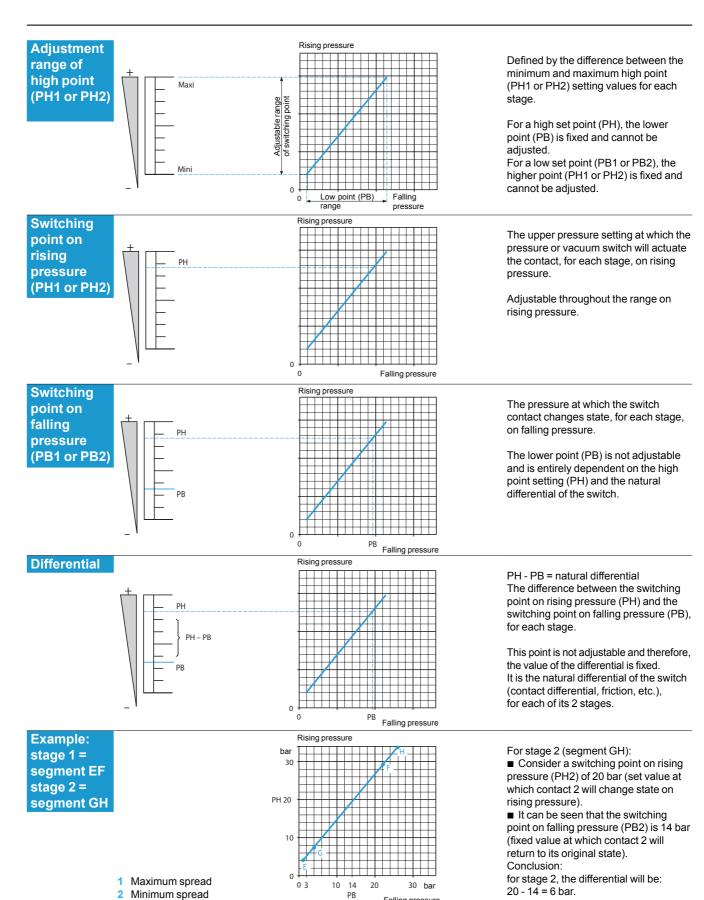
 \Box the minimum spread will be: 20 - 17 = 3 bar.

Maximum spread
 Minimum spread

Operating curves (switching points on falling pressure)

Electromechanical pressure and vacuum switches

Dual stage, fixed differential switches, for detection at each threshold



Falling pressure

Repeat the same procedure for stage 1

(segment EF).

OsiSense XM

For control circuits, OsiSense XML

Presentation

Pressure and vacuum switches OsiSense **XML** are switches for control circuits. They are used to control the pressure of hydraulic oils, fresh water, sea water, air, steam, corrosive fluids or viscous products, up to 500 bar.

XMLA pressure and vacuum switches have a fixed differential and are for detection of a single threshold. They incorporate a 1 CO single-pole contact.

XMLB pressure and vacuum switches have an adjustable differential and are for regulation between 2 thresholds. They incorporate a 1 CO single-pole contact.

XMLC pressure and vacuum switches have an adjustable differential and are for regulation between 2 thresholds. They incorporate 2 CO single-pole contacts.

XMLD pressure and vacuum switches are dual stage switches, each stage with a fixed differential, and are for detection at each threshold. They incorporate 2 CO single-pole contacts (one per stage).

Setting

When setting pressure and vacuum switches XML, adjust the switching point on rising pressure (PH) first and then the switching point on falling pressure (PB).

Pressure and vacuum switches with fixed differential, OsiSense XMLA

Switching point on rising pressure

The switching point on rising pressure (PH) is set by adjusting the red screw 1.

Switching point on falling pressure

The switching point on falling pressure (PB) is not adjustable.

The difference between the tripping and resetting points of the contact is the natural differential of the switch (contact differential, friction, etc.).

Pressure and vacuum switches with adjustable differential, OsiSense XMLB and XMLC

Switching point on rising pressure

The switching point on rising pressure (PH) is set by adjusting the red screw 1.

Switching point on falling pressure

The switching point on falling pressure (PB) is set by adjusting the green screw 2.

Dual stage pressure and vacuum switches with fixed differential for each threshold, OsiSense XMLD

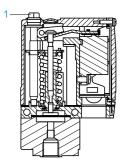
Switching point on rising pressure of stage 1 and stage 2

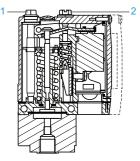
The first stage switching point on rising pressure (PH1) is set by adjusting the red screw 1.

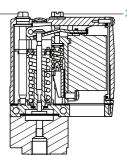
The second stage switching point on rising pressure (PH2) is set by adjusting the blue screw 2.

Switching point on falling pressure

The switching points on falling pressure (PB1 and PB2) are not adjustable. The difference between the tripping and resetting points of each contact is the natural differential of the switch (contact differential, friction, etc.).









OsiSense XM

For control circuits, OsiSense XML

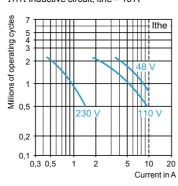
Environment characteristics Conformity to standards		CE, IEC/EN 60947-5-1, UL 508, CSA C22-2 n° 14
Product certifications		All products: UL, CSA XMLA and XMLB: CCC, BV, LROS, RINA, GOST
Protective treatment		Standard version "TC". Special version "TH"
Ambient air temperature	°C	For operation: - 25+ 70. For storage: - 40+ 70
Fluids or products controlled		Hydraulic oils, air, fresh water, sea water (0+ 160°C), depending on model Steam, corrosive fluids, viscous products (0+ 160°C), depending on model
Materials		Case: zinc alloy Component materials in contact with fluid: see pages 76 and 77
Operating position		All positions
Vibration resistance		4 gn (30500 Hz) conforming to IEC 60068-2-6 except XMLeL35eeee, XMLe001eeeee and XMLBM03eeeee: 2 gn
Shock resistance		50 gn conforming to IEC 60068-2-27 except XMLeL35eeee , XMLe001eeee and XMLBM03eeee : 30 gn
Electric shock protection		Class I conforming to IEC 1140, IEC 536 and NF C 20-030
Degree of protection		Screw terminal models: IP 66 conforming to IEC/EN 60529 Connector models: IP 65 conforming to IEC/EN 60529
Operating rate	Op. cycles/ min	Piston version switches: ≤ 60 (for temperature > 0°C) Diaphragm version switches: ≤ 120 (for temperature > 0°C)
Repeat accuracy		< 2%
Fluid connection		G 1/4 (female) conforming to NF E 03-005 for standard models, ISO 228 or 1/4" NPTI on request: please consult our Customer Care Centre. For sizes ≥ 300 bar, use the gasket delivered with the product. The gasket is also available as spare part: reference XMLZL010.
Electrical connection		Screw terminal models: ISO M20 x 1.5 tapped entry For an entry tapped for n° 13 (DIN Pg 13.5) cable gland, replace the last number of th reference by 1 (example: XMLA010A2S12 becomes XMLA010A2S11) For an entry tapped 1/2" NPT, please consult our Customer Care Centre Connector models (either type EN 175301-803-A (ex-DIN 43650A) or M12): please consult our Customer Care Centre
Contact block characteristics		
Rated operational characteristics		~AC-15; B300 (Ue = 240 V, Ie = 1.5 A - Ue = 120 V, Ie = 3 A) DC-13; R300 (Ue = 250 V, Ie = 0.1 A) conforming to IEC 60947-5-1 Appendix A, EN 60 947-5-1
Rated insulation voltage		Ui = 500 V conforming to IEC/EN 60947-1 Ui = 300 V conforming to UL 508, CSA C22-2 n° 14
Rated impulse withstand voltage		U imp = 6 kV conforming to IEC/EN 60947-1
Type of contacts		Silver tipped contacts XMLA and XMLB: 1 CO single-pole contact (4 terminal), snap action XMLC: 2 CO single-pole contacts (8 terminal), simultaneous, snap action XMLD: 2 CO single-pole contacts (8 terminal), staggered, snap action
Resistance across terminals	$\mathbf{m}\Omega$	< 25 conforming to NF C 93-050 method A or IEC 255-7 category 3
Terminal referencing		Conforming to CENELEC EN 50013
Short-circuit protection		10 A cartridge fuse type gG (gI)
Connection		Screw clamp terminals. Minimum clamping capacity: 1 x 0.2 mm²/AWG 24, max: 2 x 2.5 mm²/AWG 14

Electrical durability

Conforming to IEC/EN 60947-5-1 Appendix C Utilisation categories AC-15 and DC-13

Operating rate: 3600 operating cycles/hour Load factor: 0.5

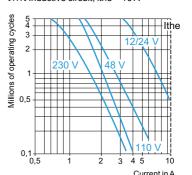
XMLA and XMLB
AC supply ~ 50/60 Hz
m Inductive circuit, Ithe = 10 A



DC supply ...
Power broken in W
for 1 million operating cycles

for a million operating cycles					
Voltage	e V	24	48	120	
m	W	31	29	26	

XMLC and XMLD
AC supply \sim 50/60 Hz
m Inductive circuit, Ithe = 10 A



DC supply ...
Power broken in W
for 5 million operating cycles

Voltage	V	24	48	120	
m	W	10	7	4	



Electromechanical vacuum switches

OsiSense XML

Size - 1 bar (- 14.5 psi)

Fixed differential, for detection of a single threshold

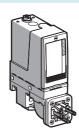
Switches with 1 CO single-pole contact

Fluid connection G 1/4 (female)

Vacuum switches OsiSense XMLA

With setting scale



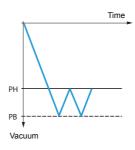


(Falling pressure)		- 0.28 1 bar (- 4.06 14.5 psi)		
		DIN connector		
Hydraulic oils, fresh water, air, up to +70°C	XMLAM01V2S12	XMLAM01V2C11		
Hydraulic oils, fresh water, air, corrosive fluids, up to + 160°C	XMLAM01T2S12	XMLAM01T2C11		
Weight (kg)		0.715		
haracteristics not show	n under general charact	teristics (page 17)		
At low setting (3)	0.24 bar (3.48 psi)	0.24 bar (3.48 psi)		
At high setting (3)	0.24 bar (3.48 psi)			
Per cycle	5 bar (72.5 psi)			
Accidental	9 bar (130.5 psi)			
	18 bar (261 psi)			
Mechanical life		3 x 10 ⁶ operating cycles		
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Connector type for connector models		EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70		
Vacuum switch type		Diaphragm		
	Hydraulic oils, fresh water, air, up to +70°C Hydraulic oils, fresh water, air, corrosive fluids, up to + 160°C haracteristics not show At low setting (3) At high setting (3) Per cycle Accidental	Hydraulic oils, fresh water, air, up to +70°C Hydraulic oils, fresh water, air, corrosive fluids, up to + 160°C C 0.685 C 0.685 C 0.685 C 0.24 bar (3.48 psi) At high setting (3) 0.24 bar (3.48 psi) Per cycle 5 bar (72.5 psi) Accidental 9 bar (130.5 psi) 18 bar (261 psi) 3 x 10° operating cycles C odels 1 entry tapped M20 x 1.5 mm for EN 175301-803-A (ex-DIN 43650)		

- (1) For 1 entry tapped for n° 13 cable gland, replace **S12** by **S11** (example: **XMLAM01V2S12** becomes XMLAM01V2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low and high setting points for switches of the same size: ± 0.05 bar (± 0.72 psi).

Operating curves

Rising pressure -1 -0.76 -0.6 -0.76 -0.6 -0.4 -0.2 -0.04 0 -0.4 -0.2 -0.04 -0.04 -0.2 -0.04 -0.04 -0.2 -0.04 -0.04 -0.2 -0.04 -0.4 -0.2 -0.04 -0.2 -0.28 -0.4 -0.6 -0.8 . -1







Connector model

Vacuum switch connector pin view



 $1 \rightarrow 11$ and 13 $2 \,{\to}\, 12$ $3 \rightarrow 14$

- Adjustable value
- --- Non adjustable value

Other versions

Vacuum switches with alternative tapped cable entries: NPT etc.

Please consult our Customer Care Centre.

Electromechanical vacuum switches

OsiSense XML

Size - 1 bar (- 14.5 psi)

Adjustable differential, for regulation between 2 thresholds

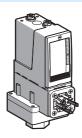
Switches with 1 CO single-pole contact

Fluid connection G 1/4 (female)

Vacuum switches OsiSense XMLB

With setting scale

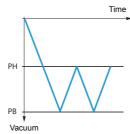




Adjustable range of switching point (PB) (Falling pressure)		- 0.14 1 bar (- 2.03 14.5 psi)		
Electrical connection		Terminals	DIN connector	
References (1)				
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to +70°C	XMLBM02V2S12	XMLBM02V2C11	
	Hydraulic oils, fresh water, air, corrosive fluids, up to + 160°C	XMLBM02T2S12	XMLBM02T2C11	
Weight (kg)		1.015	1.030	
Complementary characteristics not shown		under general characteristics (page 17)		
Possible differential	Min. at low setting (3)	0.13 bar (1.88 psi)		
(add to PB	Min. at high setting (3)	0.13 bar (1.88 psi)		
to give PH)	Max. at high setting	0.8 bar (11.6 psi)		
Maximum permissible	Per cycle	5 bar (72.5 psi)		
pressure	Accidental	9 bar (130.5 psi)		
Destruction pressure		18 bar (261 psi)		
Mechanical life		3 x 10 ⁶ operating cycles		
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Connector type for connector models		EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70		
Vacuum switch type		Diaphragm		

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLBM02V2S12 becomes XMLBM02V2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low and high setting points for switches of the same size: ± 0.02 bar (± 0.29 psi).

Operating curves





Connector model

Connection
Terminal model

Vacuum switch connector pin view

 $1 \rightarrow 11$ and 13 $2 \rightarrow 12$ $3 \rightarrow 14$

- 1 Maximum differential
- 2 Minimum differential Other versions

--- Adjustable value

Vacuum switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

References, characteristics (continued)

Electromechanical vacuum switches

OsiSense XML

Size - 1 bar (- 14.5 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 2 CO single-pole contacts

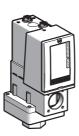
Fluid connection G 1/4 (female)

Vacuum switches OsiSense XMLC

Adjustable range of switching point (PB)

(Falling pressure)

With setting scale



Electrical connection		Terminals
References (1)		
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to +70°C	XMLCM02V2S12
	Hydraulic oils, fresh water, air, corrosive fluids, up to + 160°C	XMLCM02T2S12

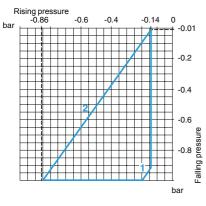
- 0.14...- 1 bar (- 2.03...- 14.5 psi)

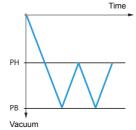
160 C			
Weight (kg)		1.015	
Complementary ch	naracteristics not shown	under general characteristics (page 17)	
Possible differential	Min. at low setting (3)	0.13 bar (1.89 psi)	
(add to PB	Min. at high setting (3)	0.14 bar (2.03 psi)	
to give PH)	Max. at high setting	0.8 bar (11.6 psi)	
Maximum permissible	Per cycle	5 bar (72.5 psi)	
pressure	Accidental	9 bar (130.5 psi)	
Destruction pressure		18 bar (261 psi)	
Mechanical life		3 x 10 ⁶ operating cycles	
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
Vacuum switch type		Diaphragm	

- (1) For 1 entry tapped for n° 13 cable gland, replace \$12 by \$11 (example: XMLCM02V2\$12 becomes XMLCM02V2\$11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low and high setting points for switches of the same size: ± 0.02 bar (± 0.29 psi).

Operating curves

Connection Terminal model







- 1 Maximum differential
- 2 Minimum differential

-- Adjustable value

Other versions

Vacuum switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.



References, characteristics

Electromechanical vacuum switches

OsiSense XML

Size - 1 bar (- 14.5 psi)

Dual stage, fixed differential, for detection at each threshold Switches with 2 CO single-pole contacts (one per stage) Fluid connection G 1/4 (female)

Vacuum switches OsiSense XMLD

Without setting scale



Adjustable range of each	2nd stage switching point (PB2)	- 0.12 1 bar (- 1.74 14.5 psi)
switching point (Falling pressure)	1st stage switching point (PB1)	- 0.10 0.98 bar (- 1.45 14.21 psi)
Spread between 2 stages (PB2 - PB1)		0.020.88 bar (0.2912.76 psi)
Electrical connection		Terminals

References (1)		
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to +70°C	XMLDM02V1S12
	Hydraulic oils, fresh water, air, corrosive fluids, up to + 160°C	XMLDM02T1S12
Weight (kg)		1.015
Complementary characteristics not shown under general characteristics (page 17)		
Not all difference of all	A () (() (0)	0.41

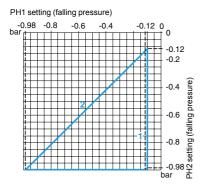
0 (0,			
Complementary characteristics not shown under general characteristics (page 17)			
Natural differential	At low setting (3)	0.1 bar (1.45 psi)	
(add to PB1/PB2 to give PH1/PH2)	At high setting (4)	0.1 bar (1.45 psi)	
Maximum permissible pressure	Per cycle	5 bar (72.5 psi)	
	Accidental	9 bar (130.5 psi)	
Destruction pressure		18 bar (261 psi)	
Mechanical life		3 x 10 ⁶ operating cycles	
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
Vacuum switch type		Diaphragm	
		(1) = 1	

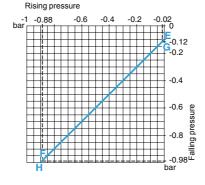
- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLDM02V1S12 becomes XMLDM02V1S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: ± 0.035 bar (± 0.51 psi).
- (4) Deviation of the differential at high setting point for switches of the same size: ± 0.02 bar (± 0.29 psi).

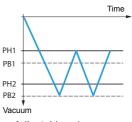
Operating curves

High setting tripping points of contacts 1 and 2

Natural differential of contacts 1 and 2







- Adjustable value
- --- Non adjustable value

Connection Terminal model

Contact 1 Contact 2 (stage 1) (stage 2)

- Maximum differential
- 2 Minimum differential

EF Contact 1 (stage 1) GH Contact 2 (stage 2)

Other versions

Vacuum switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

Accessories: page 70

Dimensions: pages 71 to 73



Electromechanical vacuum switches

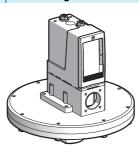
OsiSense XML

Size - 200 mbar (- 2.9 psi) Adjustable differential, for regulation between 2 thresholds Switches with 1 CO single-pole contact Fluid connection G 1/4 (female)

Vacuum switches OsiSense XMLB

Adjustable range of switching point (PB)

With setting scale



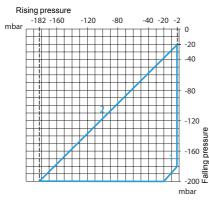
- 20...- 200 mbar (- 0.29...- 2.9 psi)

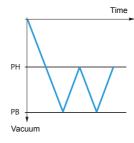
(Falling pressure)		(
Electrical connection		Terminals	
References (1)			
Fluids controlled (2)	Hydraulic oils, air, up to + 160°C	XMLBM03R2S12	
	Fresh water, corrosive fluids, up to + 160°C	XMLBM03S2S12	
Weight (kg)		3.310	
Complementary characteristics not shown		under general characteristics (page 17)	
Possible differential	Min. at low setting (3)	18 mbar (0.26 psi)	
(add to PB	Min. at high setting (3)	18 mbar (0.26 psi)	
to give PH)	Max. at high setting	180 mbar (2.6 psi)	
Maximum permissible	Per cycle	1 bar (14.5 psi)	
pressure	Accidental	2 bar (29 psi)	
Destruction pressure		3.5 bar (50.75 psi)	
Mechanical life		3 x 10 ⁶ operating cycles	
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
Vacuum switch type		Diaphragm	
· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		

- (1) For 1 entry tapped for n° 13 cable gland, replace \$12 by \$11 (example: XMLBM03R2\$12 becomes XMLBM03R2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low and high setting points for switches of the same size: ± 2 mbar (± 0.29 psi).

Operating curves

Connection **Terminal model**







1 Maximum differential

2 Minimum differential

-- Adjustable value

Other versions

Vacuum switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

OsiSense XML

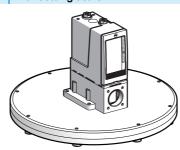
Size 50 mbar (0.72 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 1 CO single-pole contact

Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLB

With setting scale



Adjustable range of switching point (PH) (Rising pressure)		2.650 mbar (0.0380.72 psi)	
Electrical connection		Terminals	
References (1)			
Fluids controlled (2)	Hydraulic oils, air, up to + 160°C	XMLBL05R2S12	
	Fresh water, corrosive fluids, up to + 160°C	XMLBL05S2S12	
Weight (kg)		2.420	
Complementary characteristics not shown		under general characteristics (page 17)	
Possible differential	Min. at low setting (3)	1.4 mbar (0.02 psi)	
(subtract from PH	Min. at high setting (4)	4 mbar (0.06 psi)	
to give PB)	Max. at high setting	40 mbar (0.58 psi)	
Maximum permissible	Per cycle	62.5 mbar (0.90 psi)	
pressure	Accidental	112.5 mbar (1.63 psi)	
Destruction pressure		225 mbar (3.26 psi)	
Mechanical life		6 x 10 ⁶ operating cycles	
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
Pressure switch type		Diaphragm	

- (1) For 1 entry tapped for n° 13 cable gland, replace **S12** by **S11** (example: **XMLBL05R2S12** becomes XMLBL05R2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size:

 0.8 mbar, + 1.1 mbar (- 0.01 psi, + 0.02 psi).

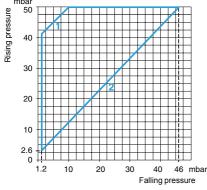
 (4) Deviation of the differential at high setting point for switches of the same size:
- ± 1.4 mbar, (+ 0.02 psi).

Operating curves

Pressure РΗ



Connection Terminal model



- 1 Maximum differential
- 2 Minimum differential

--- Adjustable value

Other versions

Pressure switches with EN 175301-803-A (ex-DIN 43650A) connector or with alternative tapped cable entries:

NPT, etc. Please consult our Customer Care Centre.

Time

OsiSense XML. Size 5 bar (72.5 psi). Adjustable differential, for regulation between 2 thresholds. Switches with 1 CO single-pole contact. Fluid connection G 1/4 (female)

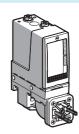
Vacu-pressure switches OsiSense XMLB

Adjustable range of switching point (PH)

(Rising pressure)

With setting scale





Electrical connection		Terminals	DIN connector	
References (1)				
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to +70°C	XMLBM05A2S12	XMLBM05A2C11	
	Hydraulic oils, fresh water, air, up to 160°C	XMLBM05B2S12	XMLBM05B2C11	
	Corrosive fluids, up to + 160°C	XMLBM05C2S12	XMLBM05C2C11	
	Viscous products, up to + 160°C (G 11/4" fluid connection)	XMLBM05P2S12	XMLBM05P2C11	
Weight (kg)		0.685	0.715	
Complementary characteristics not shown		under general characteristics (page 17)		
Possible differential	Min. at low setting (3)	0.5 bar (7.25 psi)		
(subtract from PH	Min. at high setting (3)	0.5 bar (7.25 psi)		
to give PB)	Max. at high setting	6 bar (87 psi)		
Maximum permissible	Per cycle	6.25 bar (90.62 psi)		
pressure	Accidental	11.25 bar (163.12 psi)		
Destruction pressure		23 bar (333.5 psi)		
Mechanical life		3 x 10 ⁶ operating cycles		
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Connector type for connector models		EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70		
Vacu-pressure switch type		Diaphragm		

- 0.5...5 bar (- 7.25...72.5 psi)

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLBM05A2S12 becomes XMLBM05A2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low and high setting points for switches of the same size: ± 0.05 bar (± 0.72 psi).

Operating curves

bar 9 5 0 4 0 1 2 3 4 4.5 5 bar Falling pressure

PH1 PB1 Tim
PH2 PH3 PB3 Vacuum



Connector model

Connection
Terminal model

Vacu-pressure switch pin view



 $1 \rightarrow 11$ and 13 $2 \rightarrow 12$

 $3 \rightarrow 14$

- Maximum differential
- 2 Minimum differential

--- Adjustable value

Other versions

Vacu-pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

Accessories: page 70

Dimensions: pages 71 to 73

OsiSense XML. Size 5 bar (72.5 psi). Adjustable differential, for regulation between 2 thresholds. Switches with 2 CO single-pole contacts Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLC

With setting scale



Adjustable range of switching point (PH) (Rising pressure)		- 0.555 bar (-7.9772.5 psi)	
Electrical connection		Terminals	
References (1)			
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to +70°C	XMLCM05A2S12	
	Hydraulic oils, fresh water, air, up to 160°C	XMLCM05B2S12	
Corrosive fluids, up to + 160°C		XMLCM05C2S12	
Weight (kg)		0.685	
Complementary characteristics not shown		under general characteristics (page 17)	
Possible differential	Min. at low setting (3)	0.45 bar (6.52 psi)	
(subtract from PH	Min. at high setting (3)	0.45 bar (6.52 psi)	
to give PB)	Max. at high setting	6 bar (87 psi)	
Maximum permissible	Per cycle	6.25 bar (90.62 psi)	
pressure	Accidental	11.25 bar (163.12 psi)	
Destruction pressure		23 bar (333.5 psi)	
Mechanical life		3 x 10 ⁶ operating cycles	
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
Vacu-pressure switch type		Diaphragm	

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLCM05A2S12 becomes XMLCM05A2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.

Time

(3) Deviation of the differential at low and high setting points for switches of the same size: ± 0.1 bar (± 1.45 psi).

Operating curves

Rising pressure 4 2 0.5 n -0.55 0 4 4.55 5 bar Falling pressure

- 1 Maximum differential
- 2 Minimum differential

Connection Terminal model



Connector model Vacu-pressure switch pin view



 $1 \rightarrow 11$ and 13 $2 \rightarrow 12$

 $3 \rightarrow 14$

Other versions

Vacu-pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

PH1

PB1

PH2

PB2

PH3

PB3

Vacuum

--- Adjustable value

0

OsiSense XML

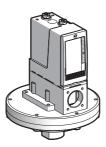
Size 350 mbar (5.07 psi)

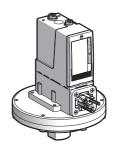
Adjustable differential, for regulation between 2 thresholds Switches with 1 CO single-pole contact

Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLB

With setting scale





g point (PH)	45350 mbar (0.655.07 psi)		
	Terminals	DIN connector	
Hydraulic oils, air, up to + 160°C	XMLBL35R2S12	XMLBL35R2C11	
Fresh water, corrosive fluids, up to + 160°C	XMLBL35S2S12	XMLBL35S2C11	
Viscous products, up to + 160°C (G 11/4" fluid connection)	XMLBL35P2S12	XMLBL35P2C11	
	2.575	2.590	
aracteristics not shown	under general characteristics (page 17)	
Min. at low setting (3)	42 mbar (0.60 psi)		
Min. at high setting (4)	50 mbar (0.72 psi)		
Max. at high setting	300 mbar (4.35 psi)		
Per cycle	1.25 bar (18.12 psi)		
Accidental	2.25 bar (32.62 psi)		
	4.5 bar (65.25 psi)		
	4 million operating cycles		
Cable entry for terminal models 1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 1		nd, clamping capacity 7 to 13 mm	
or models	EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70		
	Diaphragm		
	Hydraulic oils, air, up to + 160°C Fresh water, corrosive fluids, up to + 160°C Viscous products, up to + 160°C (G 11/4" fluid connection) aracteristics not shown Min. at low setting (3) Min. at high setting (4) Max. at high setting Per cycle Accidental	Hydraulic oils, air, up to + 160°C Fresh water, corrosive fluids, up to + 160°C Viscous products, up to + 160°C (G 1½" fluid connection) 2.575 aracteristics not shown under general characteristics (Min. at low setting (3) 42 mbar (0.60 psi) Min. at high setting (4) 50 mbar (0.72 psi) Max. at high setting 300 mbar (4.35 psi) Per cycle 1.25 bar (18.12 psi) Accidental 2.25 bar (32.62 psi) 4.5 bar (65.25 psi) 4 million operating cycles els 1 entry tapped M20 x 1.5 mm for ISO cable glant models EN 175301-803-A (ex-DIN 43650A), 4-pin males	

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLBL35R2S12 becomes XMLBL35R2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size:
- 8 mbar, + 3 mbar (- 0.12 psi, + 0.04 psi).
 (4) Deviation of the differential at high setting point for switches of the same size: ± 8 mbar (± 0.11 psi).

Operating curves

mbai 350 Rising pressure 300 200 100 300 mbar Falling pressure 1 Maximum differential

РΗ PR Time





Connector model

Pressure switch connector pin view



 $1 \rightarrow 11$ and 13 $2 \rightarrow 12$

 $3 \rightarrow 14$

-- Adjustable value

Other versions

2 Minimum differential

Pressure switches with alternative tapped cable entries: NPT... Please consult our Customer Care Centre.

References, characteristics (continued)

Electromechanical pressure switches

OsiSense XML

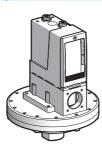
Size 350 mbar (5.07 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 1 CO single-pole contact

Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLB

30 bar (435 psi) overpressure With setting scale

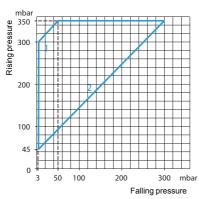


Adjustable range of switching point (PH) (Rising pressure)		42330 mbar (0.614.78 psi)	
Electrical connection		Terminals	
References (1)			
Fluids controlled (2)	Hydraulic oils, air, up to + 160°C	XMLBS35R2S12	
	Fresh water, corrosive fluids, up to + 160°C	-	
	Viscous products, up to + 160°C (G 11/4" fluid connection)	-	
Weight (kg)		3.500	

vveignt (kg)		3.500	
Complementary c	haracteristics not sho	wn under general characteristics (page 17)	
Possible differential	Min. at low setting (3)	33 mbar (0.48 psi)	
(subtract from PH	Min. at high setting (4)	58 mbar (0.84 psi)	
to give PB)	Max. at high setting	250 mbar (3.62 psi)	
Maximum permissible	Per cycle	30 bar (435 psi)	
pressure	Accidental	37.5 bar (543.75 psi)	
Destruction pressure		67.5 bar (978.75 psi)	
Mechanical life		2 million operating cycles	
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
Connector type for connector models		EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70	
Pressure switch type		Diaphragm	
		(I) = 1	

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLBS35R1S12 becomes XMLBS35R1S11).
 (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size:
 8 mbar, + 3 mbar (- 0.12 psi, + 0.04 psi).
- (4) Deviation of the differential at high setting point for switches of the same size: ± 8 mbar (± 0.11 psi).

Operating curves



Pressure PH Time Connection
Terminal model

Connector model

Pressure switch connector pin view



 $1 \rightarrow 11 \text{ and } 13$ $2 \rightarrow 12$ $3 \rightarrow 14$

- 1 Maximum differential
- 2 Minimum differential

- Adjustable value

Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.



Dimensions: pages 71 to 73



OsiSense XML

Size 350 mbar (5.07 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 2 CO single-pole contacts

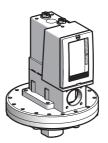
Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLC

With setting scale

30 bar (435 psi) overpressure With setting scale





Adjustable range of switching point (PH) (Rising pressure) Electrical connection		45350 mbar (0.655.07 psi)	42330 mbar (0.614.78 psi)
		Terminals	
References (1)			
Fluids controlled (2)	Hydraulic oils, air, up to + 160°C	XMLCL35R2S12	XMLCS35R2S12
	Fresh water, corrosive fluids, up to + 160°C	XMLCL35S2S12	-
Weight (kg)		2.575	3.500
Complementary c	haracteristics not shown	under general characterist	tics (page 17)
Possible differential	Min. at low setting (3)	20 mbar (0.29 psi)	40 mbar (0.58 psi)
(subtract from PH	Min. at high setting (3)	35 mbar (0.51 psi)	88 mbar (1.27 psi)
to give PB)	Max. at high setting	300 mbar (4.35 psi)	230 mbar (3.33 psi)
Maximum permissible	Per cycle	1.25 bar (18.12 psi)	30 bar (435 psi)
pressure	Accidental	2.25 bar (32.62 psi)	37.5 bar (543.75 psi)
Destruction pressure		4.5 bar (65.25 psi)	67.5 bar (978.75 psi)
Mechanical life		4 million operating cycles	2 million operating cycles
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
Pressure switch type		Diaphragm	

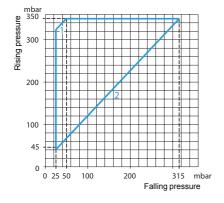
- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLCL35R2S12 becomes XMLCL35R2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: ± 20 mbar (± 0.29 psi).

Operating curves

Pressure PH PB



Connection Terminal model



1 Maximum differential2 Minimum differential

--- Adjustable value

Other versions

Pressure switches with alternative tapped cable entries: NPT... Please consult our Customer Care Centre.



References, characteristics (continued)

Electromechanical pressure switches

OsiSense XML

Size 350 mbar (5.07 psi)

Dual stage, fixed differential, for detection at each threshold Switches with 2 CO single-pole contacts (one per stage) Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLD

Without setting scale



Adjustable range of each	2nd stage switching point (PH2)	58350 mbar (0.845.07 psi)		
switching point (Rising pressure)	1st stage switching point (PH1)	33325 mbar (0.484.71 psi)		
Spread between 2 stages (PH2 - PH1)		25310 mbar (0.364.50 psi)		
Electrical connection		Terminals		
References (1)				
Fluids controlled (2)	Hydraulic oils, air, up to + 160°C	XMLDL35R1S12		
	Fresh water, corrosive fluids, up to + 160°C	XMLDL35S1S12		
Weight (kg)		2.575		
Complementary ch	naracteristics not shown	under general characteristics (page 17)		
Natural differential	At low setting (3)	30 mbar (0.44 psi)		
(subtract from PH1/PH2 to give PB1/PB2)	At high setting (4)	30 mbar (0.44 psi)		
Maximum permissible	Per cycle	1.25 bar (18.12 psi)		
pressure	Accidental	2.25 bar (32.62 psi)		
Destruction pressure		4.5 bar (65.25 psi)		
Mechanical life		4 million operating cycles		
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Pressure switch type		Diaphragm		

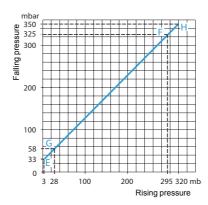
- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLDL35R1S12 becomes XMLDL35R1S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: ± 10 mbar (± 0.15 psi).
- (4) Deviation of the differential at high setting point for switches of the same size: ± 8 mbar (± 0.11 psi).

Operating curves

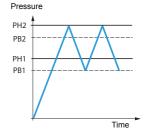
High setting tripping points of contacts 1 and 2

- 1 Maximum differential
- 2 Minimum differential

Natural differential of contacts 1 and 2



EF Contact 1 (stage 1) GH Contact 2 (stage 2)



--- Adjustable value

--- Non adjustable value **Connection**

Terminal model

Contact 1 Contact 2 (stage 1) (stage 2)



Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre

Accessories: page 70

Dimensions: pages 71 to 73



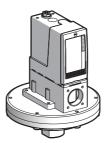
OsiSense XML

Size 1 bar (14,5 psi)

Fixed differential, for detection of a single threshold Switches with 1 CO single-pole contact Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLA

With setting scale

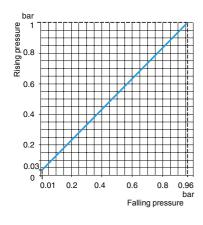


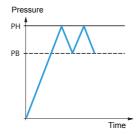


Adjustable range of switching point (PH) (Rising pressure)		0.031 bar (0.43514.5 psi)		
Electrical connection		Terminals	DIN connector	
References (1)				
Fluids controlled (2)	Hydraulic oils, air, up to + 160°C	XMLA001R2S12	XMLA001R2C11	
	Fresh water, corrosive fluids, up to + 160°C	XMLA001S2S12	XMLA001S2C11	
Weight (kg)		2.555	2.570	
Complementary c	haracteristics not shown	under general characte	ristics (page 17)	
Natural differential	At low setting (3)	0.02 bar (0.29 psi)		
(subtract from PH to give PB)	At high setting (3)	0.04 bar (0.58 psi)		
Maximum permissible	Per cycle	1.25 bar (18.12 psi)		
pressure	Accidental	2.25 bar (32.62 psi)		
Destruction pressure		4.5 bar (65.25 psi)		
Mechanical life		4 x 10 ^e operating cycles		
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Connector type for connector models		EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70		
Pressure switch type		Diaphragm		

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLA001R2S12 becomes XMLA001R2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low and high setting points for switches of the same size: ± 0.01 bar (± 0.14 psi).

Operating curves









Connector model

Pressure switch connector pin view



 $1 \rightarrow 11$ and 13 $2 \rightarrow 12$

 $3 \rightarrow 14$

- Adjustable value
- --- Non adjustable value

Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer

References, characteristics (continued)

Electromechanical pressure switches

OsiSense XML

Size 1 bar (14.5 psi)

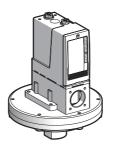
Adjustable differential, for regulation between 2 thresholds Switches with 1 CO single-pole contact

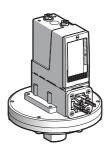
Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLB

Adjustable range of switching point (PH)

With setting scale





(Rising pressure)		,		
Electrical connection		Terminals	DIN connector	
References (1)				
Fluids controlled (2)	Hydraulic oils, air, up to + 160°C	XMLB001R2S12	XMLB001R2C11	
	Fresh water, corrosive fluids, up to + 160°C	XMLB001S2S12	XMLB001S2C11	
	Viscous products, up to + 160°C (G 11/4" fluid connection)	XMLB001P2S12	XMLB001P2C11	
Weight (kg)		2.575	2.590	
Complementary c	haracteristics not shown	under general characteristics (page 17)	
Possible differential	Min. at low setting (3)	0.04 bar (0.58 psi)		
(subtract from PH	Min. at high setting (4)	0.06 bar (0.87 psi)		
to give PB)	Max. at high setting	0.75 bar (10.87 psi)		
Maximum permissible	Per cycle	1.25 bar (18.12 psi)		
pressure	Accidental	2.25 bar (32.62 psi)		
Destruction pressure		4.5 bar (65.25 psi)		
Mechanical life		4 x 10 ⁶ operating cycles		
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Connector type for connector models		EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70		
Pressure switch type		Diaphragm		
		(1) For 1 entry tapped for n° 13 cable gland, rep.	lace S12 by S11 (example: XMLB001R2S12	

0.05...1 bar (0.72...14.5 psi)

- becomes XMLB001R2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: ± 10 mbar (± 0.14 psi).
- (4) Deviation of the differential at high setting point for switches of the same size: ± 20 mbar (± 0.29 psi).

Operating curves

0.8 0.6 0.2 0.25 0.4 0.94 0.01 0.6 0.8 Falling pressure

Pressure



Connection Terminal model

Connector model

Pressure switch connector pin view



 $1 \rightarrow$ 11 and 13 $2 \,{\to}\, 12$ $3 \rightarrow 14$

1 Maximum differential

2 Minimum differential

-- Adjustable value

Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

Accessories page 70

Dimensions: pages 71 to 73



OsiSense XML

Size 1 bar (14.5 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 2 CO single-pole contacts

Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLC

Adjustable range of switching point (PH)

With setting scale



	Terminals	
Hydraulic oils, air, up to + 160°C	XMLC001R2S12	
Fresh water, corrosive fluids, up to + 160°C	XMLC001S2S12	
	2.555	
aracteristics not shown	under general characteristics (page 17)	
Min. at low setting (3)	0.03 bar (0.43 psi)	
Min. at high setting (4)	0.04 bar (0.58 psi)	
Max. at high setting	0.8 bar (11.6 psi)	
Per cycle	1.25 bar (18.12 psi)	
Accidental	2.25 bar (32.62 psi)	
	4.5 bar (65.25 psi)	
	4 x 10 ⁶ operating cycles	
iels	1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
	Diaphragm	
	up to + 160°C Fresh water, corrosive fluids, up to + 160°C aracteristics not shown Min. at low setting (3) Min. at high setting (4) Max. at high setting Per cycle Accidental	

0.05...1 bar (0.725...14.5 psi)

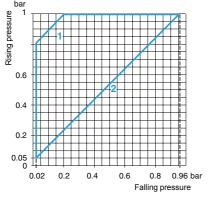
- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLC001R2S12 becomes XMLC001R2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: ± 0.01 bar (± 0.14 psi).
- (4) Deviation of the differential at high setting point for switches of the same size: ± 0.03 bar (± 0.43 psi).

Operating curves

Pressure PH PB Time



ConnectionTerminal model



1 Maximum differential2 Minimum differential

--- Adjustable value

Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.



OsiSense XML

Size 1 bar (14.5 psi)

Dual stage, fixed differential, for detection at each threshold Switches with 2 CO single-pole contacts (one per stage) Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLD

Without setting scale



2nd stage switching point (PH2) 0 12 1 har (1 74 14 5 psi)

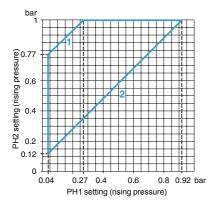
Aujustable ralige of each	Zilu stage switching point (PHZ)	0.121 bai (1.7414.5 psi)		
switching point (Rising pressure)	1st stage switching point (PH1)	0.040.92 bar (0.5813.34 psi)		
Spread between 2 stages (PH2 - PH1)		0.080.73 bar (1.1610.59 psi)		
Electrical connection		Terminals		
References (1)				
Fluids controlled (2)	Hydraulic oils, air, up to + 160°C	XMLD001R1S12		
	Fresh water, corrosive fluids, up to + 160°C	XMLD001S1S12		
Weight (kg)		2.575		
Complementary ch	aracteristics not shown	under general characteristics (page 17)		
Natural differential	At low setting (3)	0.03 bar (0.44 psi)		
(subtract from PH1/PH2 to give PB1/PB2)	At high setting (4)	0.07 bar (1.02 psi)		
Maximum permissible	Per cycle	1.25 bar (18.12 psi)		
pressure	Accidental	2.25 bar (32.62 psi)		
Destruction pressure		4.5 bar (65.25 psi)		
Mechanical life		4 x 10 ⁶ operating cycles		
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Pressure switch type		Diaphragm		

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLD001R1S12 becomes XMLD001R1S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: ± 0.01 bar (± 0.14 psi).
- (4) Deviation of the differential at high setting point for switches of the same size: ± 0.04 bar (± 0.58 psi).

Operating curves

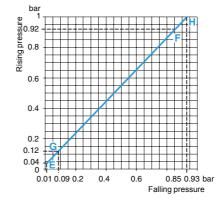
Adjustable range of each

High setting tripping points of contacts 1 and 2



- 1 Maximum differential
- 2 Minimum differential

Natural differential of contacts 1 and 2



EF Contact 1 (stage 1) GH Contact 2 (stage 2)



Adjustable valueNon adjustable value

Connection

Terminal model

Contact 2 Contact 1 (stage 2) (stage 1)



Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

Accessories: page 70 Dimensions: pages 71 to 73

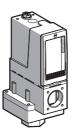


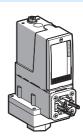
OsiSense XML

Size 2.5 bar (36.25 psi) Fixed differential, for detection of a single threshold Switches with 1 CO single-pole contact Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLA

With setting scale

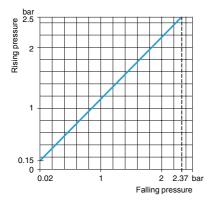


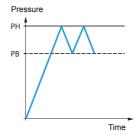


Adjustable range of switching point (PH) (Rising pressure)		0.152.5 bar (2.1736.25 psi)		
Electrical connection		Terminals	DIN connector	
References (1)				
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to +70°C	XMLA002A2S12	XMLA002A2C11	
	Hydraulic oils, fresh water, air, up to 160°C	XMLA002B2S12	XMLA002B2C11	
	Corrosive fluids, up to + 160°C	XMLA002C2S12	XMLA002C2C11	
Weight (kg)		0.995	1.010	
Complementary characteristics not shown		under general characteristics (page 17)		
Natural differential	At low setting (3)	0.13 bar (1.88 psi)		
(subtract from PH to give PB)	At high setting (3)	0.13 bar (1.88 psi)		
Maximum permissible	Per cycle	5 bar (72.5 psi)		
pressure	Accidental	9 bar (130.5 psi)		
Destruction pressure		18 bar (261 psi)		
Mechanical life		8 x 10 ⁶ operating cycles		
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Connector type for connector models		EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70		
Pressure switch type		Diaphragm		

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLA002A2S12 becomes XMLA002A2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
 (3) Deviation of the differential at low and high setting points for switches of the same size: ± 0.03 bar (± 0.43 psi).

Operating curves







Connection

Connector model Pressure switch connector pin view



 $1 \rightarrow 11$ and 13 $2 \rightarrow 12$ $3 \rightarrow 14$

- Adjustable value
- --- Non adjustable value

Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

OsiSense XML

Size 2.5 bar (36.25 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 1 CO single-pole contact

Fluid connection G 1/4 (female)

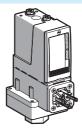
Pressure switches OsiSense XMLB

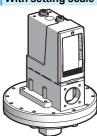
Adjustable range of switching point (PH)

With setting scale

30 bar (435 psi) overpressure With setting scale



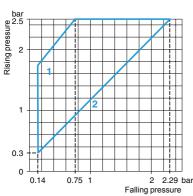




(Rising pressure)				
Electrical connection		Terminals	DIN connector	Terminals
References (1)				
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to +70°C	XMLB002A2S12	XMLB002A2C11	-
	Hydraulic oils, fresh water, air, up to 160°C	XMLB002B2S12	XMLB002B2C11	-
	Hydraulic oils, fresh water, air, up to + 160°C	-		XMLBS02B2S12
	Corrosive fluids, up to + 160°C	XMLB002C2S12	XMLB002C2C11	-
Weight (kg)		1.015	1.030	3.500
Complementary c	haracteristics not shown	under general ch	aracteristics (page 17)	
Possible differential	Min. at low setting (3)	0.16 bar (2.32 psi)		0.1 bar (1.45 psi)
(subtract from	Min. at high setting (3)	0.21 bar (3.04 psi)		0.22 bar (3.19 psi)
PH to give PB)	Max. at high setting	1.75 bar (25.37 psi)		1.45 bar (21 psi)
Maximum permissible	Per cycle	5 bar (72.5 psi)		30 bar (435 psi)
pressure	Accidental	9 bar (130.5 psi)		37.5 bar (543.75 psi)
Destruction pressure		18 bar (261 psi)		67.5 bar (978.75 psi)
Mechanical life		8 x 10 ⁶ operating cycles		2 x 10 ⁶ operating cycles
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Connector type for connector models		EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70		
Pressure switch type		Diaphragm		

0.3...2.5 bar (4.35...36.25 psi)

Operating curves



рн ¹ РВ -

Connection Terminal model

Connector model

Pressure switch connector pin view



 $1 \rightarrow 11$ and 13 $2 \rightarrow 12$ $3 \rightarrow 14$

- 1 Maximum differential
- 2 Minimum differential

--- Adjustable value

Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

⁽¹⁾ For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLB002A2S12 becomes XMLB002A2S11).

⁽²⁾ Component materials of units in contact with the fluid, see pages 76 and 77.

⁽³⁾ Deviation of the differential at low and high setting points for switches of the same size: -0.03 bar, +0.05 bar (-0.43 psi, +0.72 psi).

OsiSense XML

Size 2.5 bar (36.25 psi)

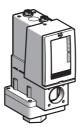
Adjustable differential, for regulation between 2 thresholds Switches with 2 CO single-pole contacts

Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLC

With setting scale

30 bar (435 psi) overpressure With setting scale



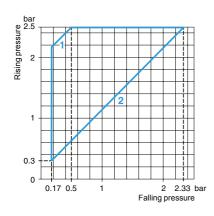


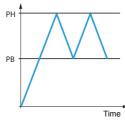
Adjustable range of switching point (PH) (Rising pressure)		0.32.5 bar (4.3536.25 psi)		
Electrical connection		Terminals		
References (1)				
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to + 160°C	-	XMLCS02B2S12	
	Hydraulic oils, fresh water, air, up to 160°C	XMLC002B2S12	-	
	Corrosive fluids, up to + 160°C	XMLC002C2S12	-	
Weight (kg)		0.995	3.500	
Complementary c	haracteristics not show	n under general characteris	tics (page 17)	
Possible differential	Min. at low setting (3)	0.13 bar (1.89 psi)	0.1 bar (1.45 psi)	
(subtract from PH	Min. at high setting (4)	0.17 bar (2.47 psi)	0.18 bar (2.61 psi)	
to give PB)	Max. at high setting	2 bar (29 psi)	1.25 bar (18.12 psi)	
Maximum permissible pressure	Per cycle	5 bar (72.5 psi)	30 bar (435 psi)	
	Accidental	9 bar (130.5 psi)	37.5 bar (543.75 psi)	
Destruction pressure		18 bar (261 psi)	67.5 bar (978.75 psi)	
Mechanical life		8 x 10 ⁶ operating cycles	2 x 10 ⁶ operating cycles	
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Pressure switch type		Diaphragm		

- (1) For 1 entry tapped for n° 13 cable gland, replace $\bf S12$ by $\bf S11$ (example: $\bf XMLC002B2S12$ becomes XMLC002B2S11).

 (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: ± 0.02 bar (± 0.29 psi).
- (4) Deviation of the differential at high setting point for switches of the same size: ± 0.03 bar (± 0.43 psi).

Operating curves





Connection **Terminal model**



- 1 Maximum differential
- 2 Minimum differential

Adjustable value

Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.



Electromechanical pressure switches

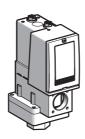
OsiSense XML

Size 2.5 bar (36.25 psi)

Dual stage, fixed differential, for detection at each threshold Switches with 2 CO single-pole contacts (one per stage) Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLD

Without setting scale

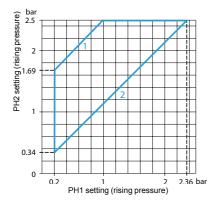


Adjustable range of each	2nd stage switching point (PH2)	0.342.5 bar (4.9336.25 psi)		
switching point (Rising pressure)	1st stage switching point (PH1)	0.22.36 bar (2.934.22 psi)		
Spread between 2 stages (P	H2 - PH1)	0.141.5 bar (2.0321.75 psi)		
Electrical connection		Terminals		
References (1)				
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to 160°C	XMLD002B1S12		
	Corrosive fluids, up to + 160°C	XMLD002C1S12		
Weight (kg)		1.015		
Complementary ch	aracteristics not shown	under general characteristics (page 17)		
Natural differential	At low setting (3)	0.14 bar (2.03 psi)		
(subtract from PH1/PH2 to give PB1/PB2)	At high setting (4)	0.19 bar (2.76 psi)		
Maximum permissible	Per cycle	5 bar (72.5 psi)		
pressure	Accidental	9 bar (130.5 psi)		
Destruction pressure		18 bar (261 psi)		
Mechanical life		8 x 10 ⁶ operating cycles		
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Pressure switch type		Diaphragm		

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLD002B1S12 becomes XMLD002B1S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: ± 0.04 bar (± 0.58 psi).
- (4) Deviation of the differential at high setting point for switches of the same size: ± 0.07 bar (± 1.02 psi).

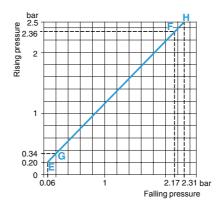
Operating curves

High setting tripping points of contacts 1 and 2

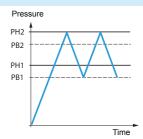


- 1 Maximum differential
- Minimum differential

Natural differential of contacts 1 and 2



EF Contact 1 (stage 1) GH Contact 2 (stage 2)



- Adjustable value --- Non adjustable value

Connection Terminal model

Contact 2 Contact 1 (stage 2) (stage 1)

Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

Accessories: page 70

OsiSense XML

Size 4 bar (58 psi)

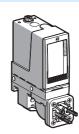
Fixed differential, for detection of a single threshold

Switches with 1 CO single-pole contact Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLA

With setting scale





Adjustable range of switching point (PH) (Rising pressure)		0.44 bar (5.858 psi)		
Electrical connection		Terminals	DIN connector	
References (1)				
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to +70°C	XMLA004A2S12	XMLA004A2C11	
	Hydraulic oils, fresh water, air, up to 160°C	XMLA004B2S12	XMLA004B2C11	
	Corrosive fluids, up to + 160°C	XMLA004C2S12	XMLA004C2C11	
	Viscous products, up to + 160°C (G 11/4" fluid connection)	XMLA004P2S12	XMLA004P2C11	
Weight (kg)		0.685	0.715	
Complementary cl	haracteristics not shown	under general characteristics (page 17)	
Natural differential	At low setting (3)	0.35 bar (5.07 psi)		
(subtract from PH to give PB)	At high setting (3)	0.35 bar (5.07 psi)		
Maximum permissible	Per cycle	5 bar (72.5 psi)		
pressure	Accidental	9 bar (130.5 psi)		
Destruction pressure		18 bar (261 psi)		
Mechanical life		8 x 10 ⁶ operating cycles		
Cable entry for terminal mo	odels	1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Connector type for connector models		EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70		
Pressure switch type		Diaphragm		

- (1) For 1 entry tapped for n° 13 cable gland, replace **S12** by **S11** (example: **XMLA004A2S12** becomes XMLA004A2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low and high setting points for switches of the same size: ± 0.03 bar (± 0.43 psi).

Operating curves

ba Rising pressure 0 3.65 4 bar 0.05 Falling pressure

Pressure РΗ



Connector model

Connection **Terminal model**

Pressure switch connector pin view



 $1 \rightarrow 11$ and 13 $2 \rightarrow 12$ $3 \rightarrow 14$

- Adjustable value
- --- Non adjustable value

Other versions

 $\label{pressure switches with alternative tapped cable entries: NPT, etc.\ Please\ consult\ our\ Customer$ Care Centre.

Accessories: page 70

Pressure switches OsiSense XMLB

Electromechanical pressure switches

OsiSense XML

Size 4 bar (58 psi)

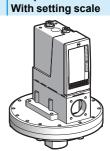
With setting scale

Adjustable differential, for regulation between 2 thresholds Switches with 1 CO single-pole contact

Fluid connection G 1/4 (female)

	9
	(U)



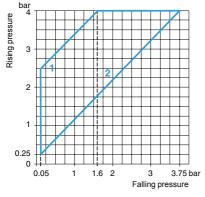


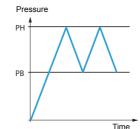
30 bar (435 psi) overpressure

Adjustable range of switching point (PH) (Rising pressure)		0.254 bar (3.6258 psi)		
Electrical connection		Terminals	DIN connector	Terminals
References (1)				
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to +70°C	XMLB004A2S12	XMLB004A2C11	-
	Hydraulic oils, fresh water, air, up to 160°C	XMLB004B2S12	XMLB004B2C11	-
	Hydraulic oils, fresh water, air, up to + 160°C	-	-	
	Corrosive fluids, up to + 160°C	XMLB004C2S12	XMLB004C2C11	-
Weight (kg)		1.015	1.030	3.500
Complementary c	haracteristics not show	n under general ch	naracteristics (page 17)	
Possible differential	Min. at low setting (3)	0.2 bar (2.9 psi)		0.15 bar (2.18 psi)
(subtract from PH	Min. at high setting (4)	0.25 bar (3.62 psi)		0.34 bar (4.93 psi)
to give PB)	Max. at high setting	2.4 bar (34.8 psi)		2.46 bar (35.67 psi)
Maximum permissible	Per cycle	5 bar (72.5 psi)		30 bar (435 psi)
pressure	Accidental	9 bar (130.5 psi)	9 bar (130.5 psi)	
Destruction pressure		18 bar (261 psi)		67.5 bar (978.75 psi)
Mechanical life		8 x 10 ⁶ operating cycles		2 x 10 ⁶ operating cycles
Cable entry for terminal mo	odels	1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Connector type for connector models		EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70		
Pressure switch type		Diaphragm		

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLB004A2S12 becomes XMLB004A2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
 (3) Deviation of the differential at low setting point for switches of the same size:
- ± 0.01 bar (± 0.14 psi).
- (4) Deviation of the differential at high setting point for switches of the same size: - 0.03 bar, + 0.05 bar (- 0.43 psi, + 0.72 psi).

Operating curves





Connection Terminal model

Connector model

Pressure switch connector pin view



 $1 \rightarrow 11$ and 13 $2 \rightarrow 12$

 $3 \rightarrow 14$

- Maximum differential
- Minimum differential

-- Adjustable value

Other versions



OsiSense XML

Size 4 bar (58 psi)

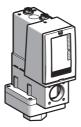
Adjustable differential, for regulation between 2 thresholds Switches with 2 CO single-pole contacts

Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLC

With setting scale

30 bar (435 psi) overpressure With setting scale



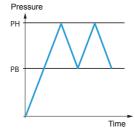


Adjustable range of switching point (PH) (Rising pressure)		0.34 bar (4.3558 psi)	
Electrical connection		Terminals	
References (1)			
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to + 160°C	-	XMLCS04B2S12
	Hydraulic oils, fresh water, air, up to 160°C	XMLC004B2S12	-
	Corrosive fluids, up to + 160°C	XMLC004C2S12	-
Weight (kg)		0.685	3.500
Complementary c	haracteristics not show	n under general characteristi	CS (page 17)
Possible differential	Min. at low setting (3)	0.15 bar (2.18 psi)	0.1 bar (1.45 psi)
(subtract from PH	Min. at high setting (3)	0.17 bar (2.47 psi)	0.25 bar (3.62 psi)
to give PB)	Max. at high setting	2.5 bar (36.25 psi)	2.20 bar (31.9 psi)
Maximum permissible	Per cycle	5 bar (72.5 psi)	30 bar (435 psi)
pressure	Accidental	9 bar (130.5 psi)	37.5 bar (543.75 psi)
Destruction pressure		18 bar (261 psi)	67.5 bar (978.75 psi)
Mechanical life		8 x 10 ⁶ operating cycles	2 x 10 ⁶ operating cycles
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
Pressure switch type		Diaphragm	

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLC004B2S12 becomes XMLC004B2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
 (3) Deviation of the differential at low and high setting points for switches of the same size: ± 0.02 bar (± 0.29 psi).

Operating curves

0.15 1.5 3.83bar Falling pressure





Connection Terminal model

1 Maximum differential --- Adjustable value

Other versions

2 Minimum differential



OsiSense XML

Size 4 bar (58 psi)

Dual stage, fixed differential, for detection at each threshold Switches with 2 CO single-pole contacts (one per stage) Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLD

Without setting scale



Adjustable range of each	2nd stage switching point (PH2)	0.404 bar (5.858 psi)			
switching point (Rising pressure)	1st stage switching point (PH1)	0.193.79 bar (2.7654.96 psi)			
Spread between 2 stages (PH2 - PH1)		0.212.18 bar (3.0531.61 psi)			
Electrical connection		Terminals			
References (1)					
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to 160°C	XMLD004B1S12			
	Corrosive fluids, up to + 160°C	XMLD004C1S12			
Weight (kg)		1.015			
Complementary ch	naracteristics not shown	under general characteristics (page 17)			
Natural differential	At low setting (3)	0.15 bar (2.18 psi)			
(subtract from PH1/PH2 to give PB1/PB2)	At high setting (3)	0.19 bar (2.76 psi)			
Maximum permissible	Per cycle	5 bar (72.5 psi)			
pressure	Accidental	9 bar (130.5 psi)			
Destruction pressure		18 bar (261 psi)			
Mechanical life		8 x 10 ⁶ operating cycles			
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm			

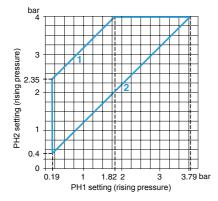
Diaphragm

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLD004B1S12 becomes XMLD004B1S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low and high setting points for switches of the same size: ± 0.03 bar (± 0.43 psi).

Operating curves

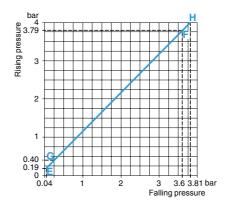
Pressure switch type

High setting tripping points of contacts 1 and 2

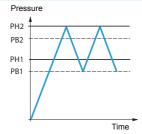


- Maximum differential
- 2 Minimum differential

Natural differential of contacts 1 and 2



EF Contact 1 (stage 1) GH Contact 2 (stage 2)



— Adjustable value
--- Non adjustable value

Connection Terminal model

Contact 2 Contact 1 (stage 2) (stage 1)

Other versions

OsiSense XML

Size 10 bar (145 psi)

Fixed differential, for detection of a single threshold

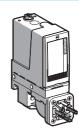
Switches with 1 CO single-pole contact

Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLA

With setting scale



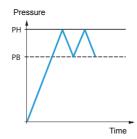


Adjustable range of switching point (PH) (Rising pressure)		0.610 bar (8.7145 psi)	
Electrical connection		Terminals	DIN connector
References (1)			
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to +70°C	XMLA010A2S12	XMLA010A2C11
	Hydraulic oils, fresh water, air, up to 160°C	XMLA010B2S12	XMLA010B2C11
	Corrosive fluids, up to + 160°C	XMLA010C2S12	XMLA010C2C11
	Viscous products, up to + 160°C (G 11/4" fluid connection)	XMLA010P2S12	XMLA010P2C11
Weight (kg)		0.685	0.715
Complementary c	haracteristics not shown	under general characteristics	(page 17)
Natural differential	At low setting (3)	0.5 bar (7.25 psi)	
(subtract from PH to give PB)	At high setting (3)	0.5 bar (7.25 psi)	
Maximum permissible	Per cycle	12.5 bar (181.25 psi)	
pressure	Accidental	22.5 bar (326.25 psi)	
Destruction pressure		45 bar (652.5 psi)	
Mechanical life		5 x 10 ⁶ operating cycles	
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
Connector type for connector models		EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70	
Pressure switch type		Diaphragm	

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLA010A2S12 becomes XMLA010A2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low and high setting points for switches of the same size: ± 0.05 bar (± 0.72 psi).

Operating curves

Rising pressure 8 9.5 b





Connection Terminal model

Connector model Pressure switch connector pin view



 $1 \rightarrow 11$ and 13 $2 \rightarrow 12$

- Adjustable value
- --- Non adjustable value

Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

Dimensions: pages 71 to 73 page 70



References, characteristics

Pressure switches OsiSense XMLB

Electromechanical pressure switches

OsiSense XML

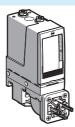
Size 10 bar (145 psi)

With setting scale

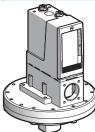
Adjustable differential, for regulation between 2 thresholds Switches with 1 CO single-pole contact

Fluid connection G 1/4 (female)

	9



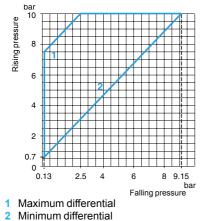
30 bar (435 psi) overpressure With setting scale

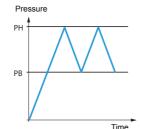


Adjustable range of switching point (PH) (Rising pressure)		0.710 bar (10.15145 psi)		
Electrical connection		Terminals	DIN connector	Terminals
References (1)				
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to +70°C	XMLB010A2S12	XMLB010A2C11	-
	Hydraulic oils, fresh water, air, up to + 160°C	-	-	XMLBS10A2S12
	Hydraulic oils, fresh water, air, up to + 160°C	XMLB010B2S12	XMLB010B2C11	-
	Corrosive fluids, up to + 160°C	XMLB010C2S12	XMLB010C2C11	-
	Viscous products, up to + 160°C (G 11/4" fluid connection)	XMLB010P2S12	XMLB010P2C11	-
Weight (kg)		0.705	0.735	3.500
Complementary c	haracteristics not shown	under general charac	cteristics (page 17)	
Possible differential	Min. at low setting (3)	0.57 bar (8.26 psi)		0.45 bar (6.52 psi)
(subtract from PH	Min. at high setting (4)	0.85 bar (12.32 psi)		0.85 bar (12.32 psi)
to give PB)	Max. at high setting	7.5 bar (108.75 psi)		6.25 bar (90.62 psi)
Maximum permissible	Per cycle	12.5 bar (181.25 psi)		30 bar (435 psi)
pressure	Accidental	22.5 bar (326.25 psi)		37.5 bar (543.75 psi)
Destruction pressure		45 bar (652.5 psi)		67.5 bar (978.75 psi)
Mechanical life		5 x 10 ⁶ operating cycles 2 x 10 ⁶ operating cycles		2 x 10 ⁶ operating cycles
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Connector type for connector models		EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70		
Pressure switch type		Diaphragm		

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLB010A2S12 becomes XMLB010A2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: ± 0.05 bar (± 0.72 psi).
- (4) Deviation of the differential at high setting point for switches of the same size:
 0.1 bar, + 0.15 bar (- 1.45 psi, + 2.17 psi).

Operating curves





Connection Terminal model

Connector model

Pressure switch connector pin view



 $1 \rightarrow$ 11 and 13 $2 \rightarrow 12$

 $3 \rightarrow 14$

-- Adjustable value

Other versions

References. characteristics (continued)

Electromechanical pressure switches

OsiSense XML

Size 10 bar (145 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 2 CO single-pole contacts

Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLC

With setting scale

30 bar (435 psi) overpressure With setting scale





Adjustable range of switch (Rising pressure)	ning point (PH)	0.710 bar (10.15145 psi)	
Electrical connection		Terminals	
References (1)			
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to + 70°C	-	XMLCS10A2S12
	Hydraulic oils, fresh water, air, up to 160°C	XMLC010B2S12	-
	Corrosive fluids, up to + 160°C	XMLC010C2S12	-
Weight (kg)		0.685	3.500
Complementary c	haracteristics not show	n under general characteri	stics (page 17)
Possible differential	Min. at low setting (3)	0.45 bar (6.53 psi)	0.25 bar (3.62 psi)
(subtract from PH	Min. at high setting (4)	0.70 bar (10.15 psi)	0.65 bar (9.42 psi)
to give PB)	Max. at high setting	8 bar (116 psi)	5.6 bar (81.2 psi)
Maximum permissible	Per cycle	12.5 bar (181.25 psi)	30 bar (435 psi)
pressure	Accidental	22.5 bar (326.25 psi)	37.5 bar (543.75 psi)
Destruction pressure		45 bar (652.5 psi)	67.5 bar (978.75 psi)
Mechanical life		5 x 10 ⁶ operating cycles	2 x 10 ⁶ operating cycles
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
Pressure switch type		Diaphragm	

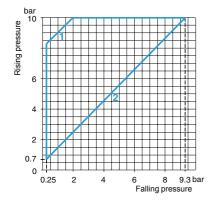
- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLC010B2S12 becomes XMLC010B2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: ± 0.05 bar (± 0.72 psi).
- (4) Deviation of the differential at high setting point for switches of the same size: ± 0.01 bar (± 1.45 psi).

Operating curves

Pressure РΒ



Connection **Terminal model**



Maximum differential

2 Minimum differential

- Adjustable value

Other versions

OsiSense XML

Size 10 bar (145 psi)

Dual stage, fixed differential, for detection at each threshold Switches with 2 CO single-pole contacts (one per stage) Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLD

Without setting scale



Adjustable range of each	2nd stage switching point (PH2)	1.210 bar (17.4145 psi)		
switching point (Rising pressure)	1st stage switching point (PH1)	0.529.32 bar (7.54135.14 psi)		
Spread between 2 stages (P	H2 - PH1)	0.685.8 bar (9.8684.1 psi)		
Electrical connection		Terminals		
References (1)				
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to 160°C	XMLD010B1S12		
	Corrosive fluids, up to + 160°C	XMLD010C1S12		
Weight (kg)		0.705		
Complementary ch	aracteristics not shown	under general characteristics (page 17)		
Natural differential	At low setting (3)	0.45 bar (6.53 psi)		
(subtract from PH1/PH2 to give PB1/PB2)	At high setting (4)	0.6 bar (8.7 psi)		
Maximum permissible	Per cycle	12.5 bar (181.25 psi)		
pressure	Accidental	22.5 bar (326.25 psi)		
Destruction pressure		45 bar (652.5 psi)		
Mechanical life		5 x 10 ⁶ operating cycles		
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		

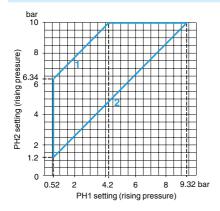
Diaphragm

- For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLD010B1S12 becomes XMLD010B1S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: ± 0.05 bar (± 0.72 psi).
- (4) Deviation of the differential at high setting point for switches of the same size: ± 0.1 bar (± 1.45 psi).

Operating curves

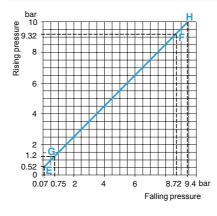
Pressure switch type

High setting tripping points of contacts 1 and 2

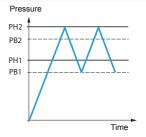


- 1 Maximum differential
- 2 Minimum differential

Natural differential of contacts 1 and 2



EF Contact 1 (stage 1)
GH Contact 2 (stage 2)



Adjustable valueNon adjustable value

Connection

Terminal model

Contact 2 Contact 1 (stage 2) (stage 1)



Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

Accessories: page 70



OsiSense XML

Size 20 bar (290 psi)

Fixed differential, for detection of a single threshold

Switches with 1 CO single-pole contact

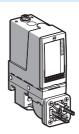
Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLA

Adjustable range of switching point (PH)

With setting scale





(Rising pressure)			
Electrical connection		Terminals	DIN connector
References (1)			
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to +70°C	XMLA020A2S12	XMLA020A2C11
	Hydraulic oils, fresh water, air, up to 160°C	XMLA020B2S12	XMLA020B2C11
	Corrosive fluids, up to + 160°C	XMLA020C2S12	XMLA020C2C11
	Viscous products, up to + 160°C (G 11/4" fluid connection)	XMLA020P2S12	XMLA020P2C11
Weight (kg)		0.685	0.715
Complementary c	haracteristics not shown	under general characteristics	(page 17)
Natural differential	At low setting (3)	0.4 bar (5.8 psi)	
(subtract from PH to give PB)	At high setting (3)	1 bar (14.5 psi)	
Maximum permissible	Per cycle	25 bar (362.5 psi)	
pressure	Accidental	45 bar (652.5 psi)	

90 bar (1305 psi)

5 x 106 operating cycles

1...20 bar (14.5...290 psi)

- EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70

 Diaphragm

 (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLA020A2S12 becomes XMLA020A2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
 (3) Deviation of the differential at high setting point for switches of the same size: ± 0.1 bar (± 1.45 psi).

1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm

Deviation of the differential at low setting point: \pm 0.2 bar (\pm 2.9 psi).

Operating curves

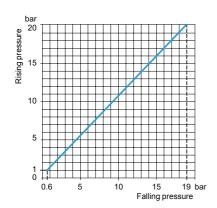
Destruction pressure

Pressure switch type

Cable entry for terminal models

Connector type for connector models

Mechanical life



Pressure PH PB



Connection
Terminal model

Connector model Pressure switch connector pin view



 $1 \rightarrow 11 \text{ and } 13$ $2 \rightarrow 12$

 $3 \rightarrow 14$

- --- Adjustable value
- --- Non adjustable value

Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

Accessories page 70

References, characteristics

Pressure switches OsiSense XMLB

Electromechanical pressure switches

OsiSense XML

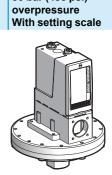
Size 20 bar (290 psi)

With setting scale

Adjustable differential, for regulation between 2 thresholds Switches with 1 CO single-pole contact

Fluid connection G 1/4 (female)



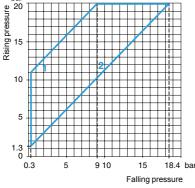


30 bar (435 psi)

	1.320 bar (18.9290 psi)			
	Terminals	DIN connector	Terminals	
Hydraulic oils, fresh water, air, up to +70°C	XMLB020A2S12	XMLB020A2C11	-	
Hydraulic oils, fresh water, air, up to + 160°C	-	-	XMLBS20A2S12	
Hydraulic oils, fresh water, air, up to + 160°C	XMLB020B2S12	XMLB020B2C11	-	
Corrosive fluids, up to + 160°C	XMLB020C2S12	XMLB020C2C11	-	
Viscous products, up to + 160°C (G 11/4" fluid connection)	XMLB020P2S12	XMLB020P2C11	-	
Weight (kg)		0.735	3.500	
Complementary characteristics not shown		teristics (page 17)		
Min. at low setting (3)	1 bar (14.5 psi)		0.95 bar (13.78 psi)	
Min. at high setting (3)	1.6 bar (23.20 psi)		1.45 bar (21.03 psi)	
Max. at high setting	11 bar (159.5 psi)		12.6 bar (182.7 psi)	
Per cycle	25 bar (362.5 psi)		30 bar (435 psi)	
Accidental	45 bar (652.5 psi)		37.5 bar (543.75 psi)	
Destruction pressure		90 bar (1305 psi)		
Mechanical life		5 x 10 ⁶ operating cycles 2 x 10 ⁶ operating cycles		
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Connector type for connector models		EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70		
	Diaphragm			
	air, up to +70°C Hydraulic oils, fresh water, air, up to + 160°C Hydraulic oils, fresh water, air, up to + 160°C Corrosive fluids, up to + 160°C Viscous products, up to + 160°C Viscous products, up to + 160°C (G 11/4" fluid connection) aracteristics not shown Min. at low setting (3) Min. at high setting Per cycle Accidental	Hydraulic oils, fresh water, air, up to +70°C Hydraulic oils, fresh water, air, up to + 160°C Hydraulic oils, fresh water, air, up to + 160°C Corrosive fluids, up to + 160°C Viscous products, up to + 160°C (G 1½" fluid connection) XMLB020P2S12 XMLB020P2S12 XMLB020P2S12 XMLB020P2S12 0.705 Aracteristics not shown under general characteristics not shown under g	Hydraulic oils, fresh water, air, up to +70°C Hydraulic oils, fresh water, air, up to + 160°C Hydraulic oils, fresh water, air, up to + 160°C Hydraulic oils, fresh water, air, up to + 160°C Corrosive fluids, up to + 160°C Viscous products, up to + 160°C (G 1½" fluid connection) XMLB020P2S12 XMLB020C2C11 XMLB020P2C11 XMLB020P2C11 XMLB020P2C11 XMLB020P2C11 0.705 0.735 Aracteristics not shown under general characteristics (page 17) Min. at low setting (3) Min. at high setting (3) Min. at high setting 11 bar (14.5 psi) Max. at high setting 11 bar (159.5 psi) Per cycle 25 bar (362.5 psi) Accidental 45 bar (652.5 psi) 90 bar (1305 psi) 5 x 10° operating cycles lels 1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capace for models EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable femore	

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLB020A2S12 becomes XMLB020A2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low and high setting points for switches of the same size: ± 0.25 bar (± 3.63 psi).

Operating curves



Pressure РН PB Time

Connection Terminal model

Connector model Pressure switch connector pin view



 $1 \rightarrow 11$ and 13 $2 \rightarrow 12$

 $3 \rightarrow 14$

- Maximum differential
- 2 Minimum differential

- Adjustable value

OsiSense XML

Size 20 bar (290 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 2 CO single-pole contacts

Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLC

With setting scale

30 bar (435 psi) overpressure With setting scale

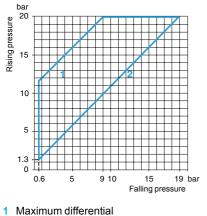




Adjustable range of switching point (PH) (Rising pressure)		1.320 bar (18.85290 psi)	
Electrical connection		Terminals	
References (1)			
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to + 70°C	-	XMLCS20A2S12
	Hydraulic oils, fresh water, air, up to 160°C	XMLC020B2S12	-
	Corrosive fluids, up to + 160°C	XMLC020C2S12	-
Weight (kg)		0.685	3.500
Complementary c	haracteristics not show	n under general characteristic	CS (page 17)
Possible differential	Min. at low setting (3)	0.7 bar (10.15 psi)	0.7 bar (10.15 psi)
(subtract from PH	Min. at high setting (3)	1 bar (14.5 psi)	1.15 bar (16.67 psi)
to give PB)	Max. at high setting	11 bar (159.5 psi)	11.70 bar (169.6 psi)
Maximum permissible	Per cycle	25 bar (362.5 psi)	30 bar (435 psi)
pressure	Accidental	45 bar (652.5 psi)	37.5 bar (543.75 psi)
Destruction pressure		90 bar (1305 psi)	67.5 bar (978.75 psi)
Mechanical life		5 x 10 ⁶ operating cycles	2 x 10 ⁶ operating cycles
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
Pressure switch type		Diaphragm	

⁽¹⁾ For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLC020B2S12 becomes XMLC020B2S11).

Operating curves



PB Time



Connection **Terminal model**

- Adjustable value Minimum differential

Other versions

⁽²⁾ Component materials of units in contact with the fluid, see pages 76 and 77.

(3) Deviation of the differential at low and high setting points for switches of the same size: ± 0.2 bar (± 2.9 psi).

OsiSense XML

Size 20 bar (290 psi)

Dual stage, fixed differential, for detection at each threshold Switches with 2 CO single-pole contacts (one per stage) Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLD

Without setting scale

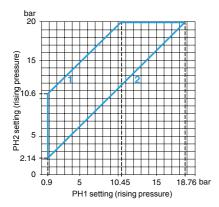


Adjustable range of each switching point (Rising pressure)	2nd stage switching point (PH2)	2.1420 bar (31.03290 psi)
	1st stage switching point (PH1)	0.918.76 bar (13.05272.02 psi)
Spread between 2 stages (Pl	H2 - PH1)	1.249.55 bar (17.98138.48 psi)
Electrical connection		Terminals
References (1)		
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to 160°C	XMLD020B1S12
	Corrosive fluids, up to + 160°C	XMLD020C1S12
Weight (kg)		0.705
Complementary ch	aracteristics not shown	under general characteristics (page 17)
Natural differential	At low setting (3)	0.7 bar (10.15 psi)
(subtract from PH1/PH2 to give PB1/PB2)	At high setting (4)	1.3 bar (18.85 psi)
Maximum permissible	Per cycle	25 bar (362.5 psi)
pressure	Accidental	45 bar (652.5 psi)
Destruction pressure		90 bar (1305 psi)
Mechanical life		5 x 10 ⁶ operating cycles
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm
Pressure switch type		Diaphragm

- (1) For 1 entry tapped for n° 13 cable gland, replace \$\overline{S12}\$ by \$\overline{S11}\$ (example: \$\overline{XMLD020B1S12}\$) becomes \$\overline{XMLD020B1S11}\$).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: ± 0.15 bar (± 2.18 psi).
- (4) Deviation of the differential at high setting point for switches of the same size: ± 0.3 bar (± 4.35 psi).

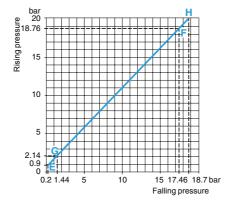
Operating curves

High setting tripping points of contacts 1 and 2

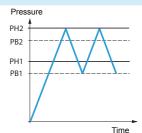


- 1 Maximum differential
- 2 Minimum differential

Natural differential of contacts 1 and 2



EF Contact 1 (stage 1) GH Contact 2 (stage 2)



--- Adjustable value

--- Non adjustable value

Connection

Terminal model

Contact 2 Contact 1 (stage 2) (stage 1) \mathbb{R} \mathbb{R} \mathbb{R}

Other versions



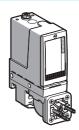
OsiSense XML

Size 35 bar (507.5 psi) Fixed differential, for detection of a single threshold Switches with 1 CO single-pole contact Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLA

With setting scale

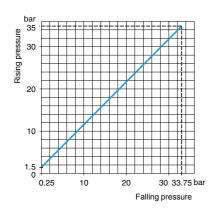


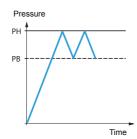


Adjustable range of switching point (PH) (Rising pressure)		1.535 bar (21.75507.5 psi)	
Electrical connection		Terminals	DIN connector
References (1)			
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to +70°C	XMLA035A2S12	XMLA035A2C11
	Hydraulic oils, fresh water, air, up to 160°C	XMLA035B2S12	XMLA035B2C11
	Corrosive fluids, up to + 160°C	XMLA035C2S12	XMLA035C2C11
	Viscous products, up to + 160°C (G 11/4" fluid connection)	XMLA035P2S12	XMLA035P2C11
Weight (kg)		0.695	0.725
Complementary characteristics not shown		under general characteristics (page 17)
Natural differential	At low setting (3)	1.25 bar (18.12 psi)	
(subtract from PH to give PB)	At high setting (3)	1.25 bar (18.12 psi)	
Maximum permissible	Per cycle	45 bar (652.5 psi)	
pressure Accidental		80 bar (1160 psi)	
Destruction pressure		160 bar (2320 psi)	
Mechanical life		5 x 10 ⁶ operating cycles	
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
Connector type for connector models		EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70	
Pressure switch type		Diaphragm	

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLA035A2S12 becomes XMLA035A2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
 (3) Deviation of the differential at low and high setting points for switches of the same size: ± 0.25 bar (± 3.62 psi).

Operating curves







Connection Terminal model

Connector model Pressure switch connector pin view

 $1 \rightarrow 11$ and 13 [1 2 $2 \rightarrow 12$ ر3 $3 \rightarrow 14$

- Adjustable value
- --- Non adjustable value

Other versions Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer

Dimensions: pages 71 to 73 page 70



References, characteristics

Electromechanical pressure switches

OsiSense XML

Size 35 bar (507.5 psi)

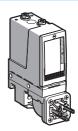
Adjustable differential, for regulation between 2 thresholds Switches with 1 CO single-pole contact

Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLB

With setting scale





Adjustable range of switching point (PH) (Rising pressure)		3.535 bar (50.75507.5 psi)	
Electrical connection		Terminals	DIN connector
References (1)			
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to +70°C	XMLB035A2S12	XMLB035A2C11
	Hydraulic oils, fresh water, air, up to 160°C	XMLB035B2S12	XMLB035B2C11
	Corrosive fluids, up to + 160°C	XMLB035C2S12	XMLB035C2C11
	Viscous products, up to + 160°C (G 11/4" fluid connection)	XMLB035P2S12	XMLB035P2C11
Weight (kg)		0.715	0.745
Complementary	characteristics not shown	under general characte	ristics (page 17)
Possible differential (subtract from PH to give PB)	Min. at low setting (3)	1.7 bar (24.65 psi)	
	Min. at high setting (3)	2.55 bar (36.97 psi)	
	Max. at high setting	20 bar (290 psi)	

45 bar (652.5 psi) Maximum permissible Per cycle pressure Accidental 80 bar (1160 psi) **Destruction pressure** 160 bar (2320 psi) Mechanical life 5 x 10⁶ operating cycles Cable entry for terminal models 1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm Connector type for connector models $\mbox{DIN}\,43650\,\mbox{A}, \mbox{4-pin}$ male. For suitable female connector, see page 70 Pressure switch type Diaphragm

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLB035A2S12 becomes XMLB035A2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.(3) Deviation of the differential at low and high setting points for switches of the same size: - 0.5 bar, + 0.7 bar (- 7.25 psi, + 10.15 psi).

Operating curves

bar 35 30 0 1.8 10 15 32.45 bai Falling pressure

Pressure Time



Connector model

Pressure switch connector pin view



 $1 \rightarrow 11$ and 13

 $2 \rightarrow 12$ $3 \rightarrow 14$

- 1 Maximum differential
- Minimum differential

--- Adjustable value

Other versions Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre





OsiSense XML

Size 35 bar (507.5 psi) Adjustable differential, for regulation between 2 thresholds Switches with 2 CO single-pole contacts Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLC

Adjustable range of switching point (PH)

(Rising pressure)

With setting scale



Electrical connection		Terminals
References (1)		
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to 160°C	XMLC035B2S12
	Corrosive fluids, up to + 160°C	XMLC035C2S12
Weight (kg)		0.695
Complementary cl	haracteristics not showr	n under general characteristics (page 17)
Possible differential	Min. at low setting (3)	1 bar (14.5 psi)
(subtract from PH	Min. at high setting (4)	1.5 bar (21.75 psi)
to give PB)	Max. at high setting	22 bar (319 psi)
Maximum permissible	Per cycle	45 bar (652.5 psi)
pressure	Accidental	80 bar (1160 psi)
Destruction pressure		160 bar (2320 psi)
Mechanical life		5 x 10 ⁶ operating cycles
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm
Pressure switch type		Diaphragm

3.5...35 bar (50.75...507.5 psi)

- (1) For 1 entry tapped for n° 13 cable gland, replace \$12 by \$11 (example: XMLC035B2\$12 becomes XMLC035B2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size:
- ± 0.2 bar (± 2.9 psi).

 (4) Deviation of the differential at high setting point for switches of the same size: ± 0.5 bar (± 7.25 psi).

Operating curves

35 Rising pressure 30 10 13 33.5 bar Falling pressure

Pressure



Connection **Terminal model**

1 Maximum differential

2 Minimum differential

- Adjustable value

Other versions

OsiSense XML

Size 35 bar (507.5 psi)

Dual stage, fixed differential, for detection at each threshold Switches with 2 CO single-pole contacts (one per stage) Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLD

Without setting scale



Adjustable range of each	2nd stage switching point (PH2)	4.435 bar (63.8507.5 psi)	
switching point (Rising pressure)	1st stage switching point (PH1)	1.932.5 bar (27.55471.25 psi)	
Spread between 2 stages (Pl	H2 - PH1)	2.520.4 bar (36.25295.8 psi)	
Electrical connection		Terminals	
References (1)			
Fluids controlled (2)	Hydraulic oils, fresh water, air, up to 160°C	XMLD035B1S12	
	Corrosive fluids, up to + 160°C	XMLD035C1S12	
Weight (kg)		0.715	
Complementary ch	aracteristics not shown	under general characteristics (page 17)	
Natural differential	At low setting (3)	1.5 bar (21.75 psi)	
(subtract from PH1/PH2 to give PB1/PB2)	At high setting (4)	2.6 bar (37.7 psi)	
Maximum permissible	Per cycle	45 bar (652.5 psi)	
pressure	Accidental	80 bar (1160 psi)	
Destruction pressure		160 bar (2320 psi)	
Mechanical life		5 x 10 ⁶ operating cycles	
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
Pressure switch type		Diaphragm	

- (1) For 1 entry tapped for n° 13 cable gland, replace \$12 by \$11 (example: XMLD035B1\$12 becomes XMLD035B1S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77. (3) Deviation of the differential at low setting point for switches of the same size:
- ± 0.3 bar (± 4.35 psi).
- (4) Deviation of the differential at high setting point for switches of the same size: ± 0.7 bar (± 10.15 psi).

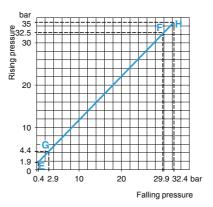
Operating curves

High setting tripping points of contacts 1 and 2

PH2 setting (rising pressure) 14.6 20 30 32.5 bar 1.9 PH1 setting (rising pressure)

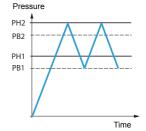
- 1 Maximum differential
- 2 Minimum differential

Natural differential of contacts 1 and 2



EF Contact 1 (stage 1)

GH Contact 2 (stage 2)



- Adjustable value

--- Non adjustable value

Connection

Terminal model

Contact 2 Contact 1 (stage 2) (stage 1)



Other versions



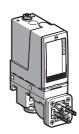
OsiSense XML

Size 70 bar (1015 psi) Fixed differential, for detection of a single threshold Switches with 1 CO single-pole contact Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLA

With setting scale

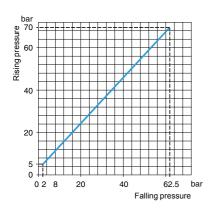


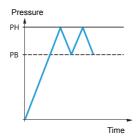


Terminals DIN connector	Adjustable range of switching point (PH) (Rising pressure)		570 bar (72.51015 psi)	570 bar (72.51015 psi)	
Fluids controlled (2)	Electrical connection		Terminals	DIN connector	
(2) up to + 160°C XMLA070E2S12 XMLA070E2C11 Fresh water, up to + 160°C up to + 160°C XMLA070N2S12 XMLA070N2C11 Weight (kg) 0.695 0.725 Complementary characteristics not shown under general characteristics (page 17) Natural differential (subtract from PH to give PB) At low setting (3) 3 bar (43.5 psi) Maximum permissible pressure Per cycle 90 bar (1035 psi) Maximum permissible pressure Per cycle 90 bar (1035 psi) Destruction pressure Accidental 160 bar (2320 psi) Mechanical life 6 x 10° operating cycles Cable entry for terminal models 1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	References (1)				
up to + 160°C Corrosive fluids, air, up to + 160°C XMLA070N2S12 XMLA070N2C11 Weight (kg) 0.695 0.725 Complementary characteristics not shown under general characteristics (page 17) Natural differential (subtract from PH to give PB) At low setting (3) 3 bar (43.5 psi) Maximum permissible pressure Per cycle 90 bar (1035 psi) Maximum permissible pressure Per cycle 90 bar (2320 psi) Destruction pressure 320 bar (4640 psi) Mechanical life 6 x 10° operating cycles Cable entry for terminal models 1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm			XMLA070D2S12	XMLA070D2C11	
Weight (kg) 0.695 0.725 Complementary characteristics not shown under general characteristics (page 17) Natural differential (subtract from PH to give PB) Maximum permissible pressure Accidental Per cycle Accidental Destruction pressure Mechanical life Cable entry for terminal models 0.725			XMLA070E2S12	XMLA070E2C11	
Complementary characteristics not shown under general characteristics (page 17) Natural differential (subtract from PH to give PB) At low setting (3) 3 bar (43.5 psi) Maximum permissible pressure Per cycle 90 bar (1035 psi) Maximum permissible pressure Per cycle 90 bar (2320 psi) Destruction pressure 320 bar (4640 psi) Mechanical life 6 x 106 operating cycles Cable entry for terminal models 1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm			XMLA070N2S12	XMLA070N2C11	
Natural differential (subtract from PH to give PB) At low setting (3) At high setting (3) 3 bar (43.5 psi) Maximum permissible pressure Per cycle Accidental 90 bar (1035 psi) Destruction pressure 320 bar (4640 psi) Mechanical life 6 x 106 operating cycles Cable entry for terminal models 1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	Weight (kg)		0.695	0.725	
(subtract from PH to give PB) Maximum permissible pressure Accidental Destruction pressure Mechanical life Cable entry for terminal models At high setting (3) 9.5 bar (137.75 psi) 9.5 bar (137.	Complementary characteristics not shown		own under general charact	eristics (page 17)	
Maximum permissible pressure Per cycle 90 bar (1035 psi) Destruction pressure 320 bar (4640 psi) Mechanical life 6 x 106 operating cycles Cable entry for terminal models 1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		At low setting (3)	3 bar (43.5 psi)	3 bar (43.5 psi)	
pressure Accidental 160 bar (2320 psi) Destruction pressure 320 bar (4640 psi) Mechanical life 6 x 10° operating cycles Cable entry for terminal models 1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		At high setting (3)	9.5 bar (137.75 psi)		
Destruction pressure 320 bar (4640 psi) Mechanical life 6 x 10 ⁶ operating cycles Cable entry for terminal models 1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	-	Per cycle	90 bar (1035 psi)	90 bar (1035 psi)	
Mechanical life 6 x 10 ⁶ operating cycles Cable entry for terminal models 1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	pressure	pressure Accidental		160 bar (2320 psi)	
Cable entry for terminal models 1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	Destruction pressure		320 bar (4640 psi)		
	Mechanical life		6 x 10 ⁶ operating cycles	6 x 10 ⁶ operating cycles	
Connector type for connector models EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70	Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for	1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
	Connector type for connector models		EN 175301-803-A (ex-DIN 43650	EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70	
Pressure switch type Piston	Pressure switch type	Pressure switch type			

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLA070D2S12 becomes XMLA070D2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low and high setting points for switches of the same size: ± 1 bar (± 14.5 psi)

Operating curves









Connector model

Pressure switch connector pin view



 $1 \rightarrow 11$ and 13 $2 \,{\to}\, 12$

 $3 \rightarrow 14$

- Adjustable value
- --- Non adjustable value

Other versions

References, characteristics

Electromechanical pressure switches

OsiSense XML

Size 70 bar (1015 psi)

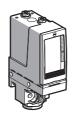
Adjustable differential, for regulation between 2 thresholds

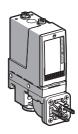
Switches with 1 CO single-pole contact Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLB

Adjustable range of switching point (PH)

With setting scale





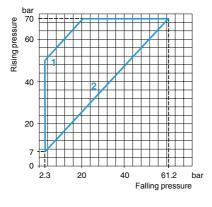
(Rising pressure)				
Electrical connection		Terminals	DIN connector	
References (1)				
Fluids controlled (2)	Hydraulic oils, up to + 160°C	XMLB070D2S12	XMLB070D2C11	
	Fresh water, up to + 160°C	XMLB070E2S12	XMLB070E2C11	
	Corrosive fluids, air, up to + 160°C	XMLB070N2S12	XMLB070N2C11	
Weight (kg)		0.715	0.745	
Complementary characteristics not shown		wn under general charact	eristics (page 17)	
Possible differential	Min. at low setting (3)	4.7 bar (68.15 psi)	4.7 bar (68.15 psi)	
(subtract from PH	Min. at high setting (4)	9.5 bar (137.75 psi)	9.5 bar (137.75 psi)	
to give PB)	Max. at high setting	50 bar (725 psi)	50 bar (725 psi)	
Maximum permissible	Per cycle	90 bar (1035 psi)	90 bar (1035 psi)	
pressure	Accidental	160 bar (2320 psi)	160 bar (2320 psi)	
Destruction pressure		320 bar (4640 psi)	320 bar (4640 psi)	
Mechanical life 6 x 10 ⁶ operating cycles				
Cable entry for terminal models 1 entry tapped M20 x 1.5 mm for ISO cable gland, clamp		SO cable gland, clamping capacity 7 to 13 mm		
Connector type for connector models		EN 175301-803-A (ex-DIN 43650	EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70	
Pressure switch type		Piston		
	·	(1) For 1 entry tapped for n° 13 call	ole gland, replace S12 by S11 (example: XMLB070D2S12	

7...70 bar (101.5...1015 psi)

- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size:
- 0.4 bar, + 0.7 bar (- 5.8 psi, + 10.15 psi).

 (4) Deviation of the differential at high setting point for switches of the same size: - 0.6 bar, + 0.8 bar (- 8.7 psi, + 11.6 psi).

Operating curves



Pressure



Connector model

Connection Terminal model

Pressure switch connector pin view



 $1 \rightarrow 11$ and 13 $2 \rightarrow 12$

 $3 \rightarrow 14$

- Maximum differential
- 2 Minimum differential

Adjustable value

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

Accessories: page 70

Other versions



becomes XMLB070D2S11).

OsiSense XML

Size 70 bar (1015 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 2 CO single-pole contacts

Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLC

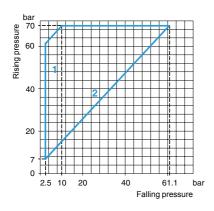
With setting scale



Adjustable range of switching point (PH) (Rising pressure)		770 bar (101.51015 psi)	
Electrical connection		Terminals	
References (1)			
Fluids controlled (2)	Hydraulic oils, up to + 160°C	XMLC070D2S12	
	Fresh water, up to + 160°C	XMLC070E2S12	
	Corrosive fluids, up to + 160°C	XMLC070N2S12	
Weight (kg)		0.695	
Complementary c	haracteristics not sho	wn under general characteristics (page 17)	
Possible differential	Min. at low setting (3)	4.5 bar (65.25 psi)	
(subtract from PH	Min. at high setting (3)	9.5 bar (137.75 psi)	
to give PB)	Max. at high setting	60 bar (870 psi)	
Maximum permissible	Per cycle	90 bar (1035 psi)	
pressure	Accidental	160 bar (2320 psi)	
Destruction pressure		320 bar (4640 psi)	
Mechanical life		6 x 10 ⁶ operating cycles	
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
Pressure switch type		Piston	

- (1) For 1 entry tapped for n° 13 cable gland, replace **S12** by **S11** (example: **XMLC070D2S12** becomes XMLC070D2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low and high setting points for switches of the same size: ± 0.8 bar (± 11.6 psi).

Operating curves



PB



Connection

Maximum differential

2 Minimum differential

--- Adjustable value

Other versions

References, characteristics

Electromechanical pressure switches

OsiSense XML

Size 70 bar (1015 psi)

Dual stage, fixed differential, for detection at each threshold Switches with 2 CO single-pole contacts (one per stage) Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLD

Without setting scale

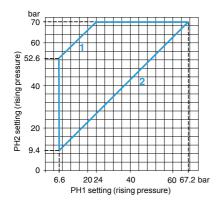


Adjustable range of each switching point (Rising pressure)	2nd stage switching point (PH2)	9.470 bar (136.31015 psi)
	1st stage switching point (PH1)	6.667.2 bar (95.7974.4 psi)
Spread between 2 stages (P	H2 - PH1)	2.846 bar (40.6667 psi)
Electrical connection		Terminals
References (1)		
Fluids controlled (2)	Hydraulic oils, up to + 160°C	XMLD070D1S12
	Fresh water, up to + 160°C	XMLD070E1S12
	Corrosive fluids, air, up to + 160°C	XMLD070N1S12
Weight (kg)		0.715
Complementary ch	aracteristics not shown	under general characteristics (page 17)
Natural differential	At low setting (3)	5 bar (72.5 psi)
(subtract from PH1/PH2 to give PB1/PB2)	At high setting (4)	9.5 bar (137.75 psi)
Maximum permissible	Per cycle	90 bar (1035 psi)
pressure	Accidental	160 bar (2320 psi)
Destruction pressure		320 bar (4640 psi)
Mechanical life		6 x 10 ⁶ operating cycles
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm
Pressure switch type		Piston

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLD070D1S12 becomes XMLD070D1S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: ± 1.5 bar (± 21.75 psi).
- (4) Deviation of the differential at high setting point for switches of the same size: ± 2 bar (± 29 psi).

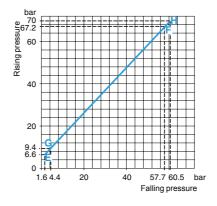
Operating curves

High setting tripping points of contacts 1 and 2

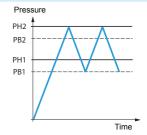


- 1 Maximum differential
- 2 Minimum differential

Natural differential of contacts 1 and 2



EF Contact 1 (stage 1) GH Contact 2 (stage 2)



Adjustable valueNon adjustable value

Connection

Terminal model

Contact 2 Contact 1 (stage 2) (stage 1)



Other versions

OsiSense XML

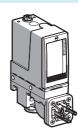
Size 160 bar (2320 psi)

Fixed differential, for detection of a single threshold Switches with 1 CO single-pole contact Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLA

With setting scale



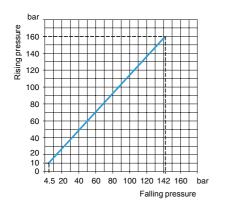


Adjustable range of switching point (PH) (Rising pressure)		10160 bar (1452320 psi)	10160 bar (1452320 psi)	
Electrical connection	Electrical connection		DIN connector	
References (1)				
Fluids controlled (2)	Hydraulic oils, up to + 160°C	XMLA160D2S12	XMLA160D2C11	
	Fresh water, up to + 160°C	XMLA160E2S12	XMLA160E2C11	
	Corrosive fluids, air, up to + 160°C	XMLA160N2S12	XMLA160N2C11	
Weight (kg)		0.750	0.780	
Complementary characteristics not shown		own under general charac	teristics (page 17)	
Natural differential	At low setting (3)	5.5 bar (79.75 psi)	5.5 bar (79.75 psi)	
(subtract from PH to give PB)	At high setting (4)	18 bar (261 psi)	18 bar (261 psi)	
Maximum permissible	Per cycle	200 bar (2900 psi)	200 bar (2900 psi)	
pressure	Accidental	360 bar (5220 psi)	360 bar (5220 psi)	
Destruction pressure		720 bar (10,440 psi)	720 bar (10,440 psi)	
Mechanical life		6 x 10 ⁶ operating cycles	6 x 10 ⁶ operating cycles	
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for	1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
Connector type for connector models		EN 175301-803-A (ex-DIN 4365	EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70	
Pressure switch type		Piston	Piston	

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLA160D2S12 becomes XMLA160D2S11).

- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
 (3) Deviation of the differential at low setting point for switches of the same size: ± 1 bar (± 14.5 psi).
 (4) Deviation of the differential at high setting point for switches of the same size: ± 3 bar (± 43.5 psi).

Operating curves



Pressure PB



Connector model

Connection **Terminal model**

Pressure switch connector pin view



 $1 \rightarrow 11$ and 13 $2 \,{\to}\, 12$

 $3 \rightarrow 14$

- Adjustable value
- --- Non adjustable value

Other versions



References, characteristics

Electromechanical pressure switches

OsiSense XML

Size 160 bar (2320 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 1 CO single-pole contact

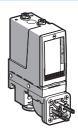
Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLB

Adjustable range of switching point (PH)

With setting scale





(Rising pressure)					
Electrical connection		Terminals	DIN connector		
References (1)					
Fluids controlled (2)	Hydraulic oils, up to + 160°C	XMLB160D2S12	XMLB160D2C11		
	Fresh water, up to + 160°C	XMLB160E2S12	XMLB160E2C11		
	Corrosive fluids, air, up to + 160°C	XMLB160N2S12	XMLB160N2C11		
Weight (kg)		0.750	0.780		
Complementary c	haracteristics not sho	wn under general charact	eristics (page 17)		
Possible differential	Min. at low setting (3)	9.3 bar (134.85 psi)	9.3 bar (134.85 psi)		
(subtract from PH	Min. at high setting (4)	20.8 bar (301.6 psi)			
to give PB)	Max. at high setting	100 bar (1450 psi)			
Maximum permissible	Per cycle	200 bar (2900 psi)			
pressure	Accidental	360 bar (5220 psi)			
Destruction pressure		720 bar (10,440 psi)			
Mechanical life		6 x 10 ⁶ operating cycles			
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for I	1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Connector type for connector models		EN 175301-803-A (ex-DIN 43650	EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70		
Pressure switch type		Piston			
		(1) For 1 entry tapped for n° 13 cab	le gland, replace S12 by S11 (example: XMLB160D2S12		

10...160 bar (145...2320 psi)

- becomes XMLB160D2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size:
- 1.8 bar, + 1.5 bar (- 26.1 psi, + 21.75 psi).

 (4) Deviation of the differential at high setting point for switches of the same size: - 1.9 bar, + 1.6 bar (- 27.55 psi, + 23.2 psi).

Operating curves

n 60 120 139.2 bar Falling pressure

Pressure



Connection Terminal model

Connector model

Pressure switch connector pin view



 $1 \rightarrow 11$ and 13 $2 \rightarrow 12$

 $3 \rightarrow 14$

- Maximum differential
- 2 Minimum differential

Adjustable value

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

Accessories: page 70

Other versions



Pressure switches OsiSense XMLC

Electromechanical pressure switches

OsiSense XML

Size 160 bar (2320 psi)

Adjustable differential, for regulation between 2 thresholds

Switches with 2 CO single-pole contacts

Fluid connection G 1/4 (female)



With setting scale

(Rising pressure)		12160 bar (1742320 psi)
		Terminals
References (1)		
Fluids controlled (2)	Hydraulic oils, up to + 160°C	XMLC160D2S12
	Fresh water, up to + 160°C	XMLC160E2S12
	Corrosive fluids, up to + 160°C	XMLC160N2S12
Weight (kg)		0.750
Complementary c	haracteristics not sho	wn under general characteristics (page 17)
Possible differential	Min. at low setting (3)	9 bar (130.5 psi)
(subtract from PH	Min. at high setting (3)	21 bar (304.5 psi)
to give PB)	Max. at high setting	110 bar (1590 psi)
Maximum permissible	Per cycle	200 bar (2900 psi)
pressure	Accidental	360 bar (5220 psi)
Destruction pressure		720 bar (10,440 psi)
Mechanical life		6 x 10 ⁶ operating cycles

Piston

- (1) For 1 entry tapped for n° 13 cable gland, replace \$12 by \$11 (example: XMLC160D2\$12 becomes XMLC160D2S11).

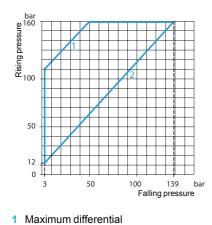
 (2) Component materials of units in contact with the fluid, see pages 76 and 77.

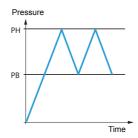
1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm

(3) Deviation of the differential at low and high setting points for switches of the same size: ± 0.9 bar (± 13.05 psi).

Operating curves

Cable entry for terminal models Pressure switch type







Connection **Terminal model**

-- Adjustable value

Other versions

2 Minimum differential

OsiSense XML

Size 160 bar (2320 psi)

Dual stage, fixed differential, for detection at each threshold Switches with 2 CO single-pole contacts (one per stage) Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLD

Without setting scale

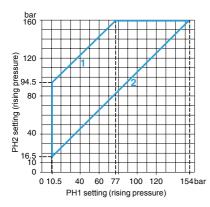


Adjustable range of each	2nd stage switching point (PH2)	16.5160 bar (239.252320 psi)		
switching point (Rising pressure)	1st stage switching point (PH1)	10.5154 bar (152.252233 psi)		
Spread between 2 stages (P	H2 - PH1)	683 bar (871203.5 psi)		
Electrical connection		Terminals		
References (1)				
Fluids controlled (2)	Hydraulic oils, up to + 160°C	XMLD160D1S12		
	Fresh water, up to + 160°C	XMLD160E1S12		
	Corrosive fluids, air, up to + 160°C	XMLD160N1S12		
Weight (kg)		0.750		
Complementary ch	aracteristics not shown	under general characteristics (page 17)		
Natural differential	At low setting (3)	8.8 bar (127.6 psi)		
(subtract from PH1/PH2 to give PB1/PB2)	At high setting (4)	20 bar (290 psi)		
Maximum permissible	Per cycle	200 bar (2900 psi)		
pressure	Accidental	360 bar (5220 psi)		
Destruction pressure		720 bar (10,440 psi)		
Mechanical life		6 x 10 ⁶ operating cycles		
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Pressure switch type		Piston		

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLD160D1S12 becomes XMLD160D1S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: ± 1.5 bar (± 21.75 psi).
- (4) Deviation of the differential at high setting point for switches of the same size: ± 7 bar (± 101.5 psi).

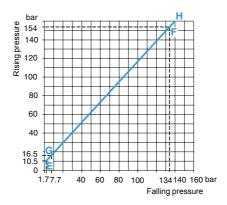
Operating curves

High setting tripping points of contacts 1 and 2

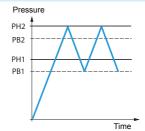


- 1 Maximum differential
- 2 Minimum differential

Natural differential of contacts 1 and 2



EF Contact 1 (stage 1) GH Contact 2 (stage 2)



--- Adjustable value
--- Non adjustable value

Connection

Terminal model

Contact 2 Contact 1 (stage 2) (stage 1)



Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.



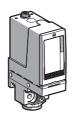
OsiSense XML

Size 300 bar (4350 psi)

Fixed differential, for detection of a single threshold Switches with 1 CO single-pole contact Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLA

With setting scale





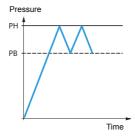
Adjustable range of switching point (PH) (Rising pressure)				
	Terminals	DIN connector		
Hydraulic oils, up to + 160°C	XMLA300D2S12	XMLA300D2C11		
Fresh water, up to + 160°C	XMLA300E2S12	XMLA300E2C11		
Corrosive fluids, air, up to + 160°C	XMLA300N2S12	XMLA300N2C11		
Weight (kg)		0.780		
Complementary characteristics not shown		teristics (page 17)		
At low setting (3)	16.5 bar (239.25 psi)	16.5 bar (239.25 psi)		
At high setting (4)	35 bar (507.5 psi)	35 bar (507.5 psi)		
Per cycle	375 bar (5437.5 psi)	375 bar (5437.5 psi)		
Accidental	675 bar (9787.5 psi)	675 bar (9787.5 psi)		
	1350 bar (19,575 psi)	1350 bar (19,575 psi)		
Mechanical life		3 x 10 ⁶ operating cycles		
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Connector type for connector models		EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70		
Pressure switch type		Piston		
	Hydraulic oils, up to + 160°C Fresh water, up to + 160°C Corrosive fluids, air, up to + 160°C haracteristics not sho At low setting (3) At high setting (4) Per cycle Accidental	Terminals		

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLA300D2S12 becomes XMLA300D2S11).

 (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: ± 3 bar (± 43.5 psi).
 (4) Deviation of the differential at high setting point for switches of the same size: ± 6 bar (± 87 psi).
- (5) Only for control of group 2 fluids, in accordance with directive 97/23/EEC.

Operating curves

Rising pressure 100 265 300 Falling pressure





Connection **Terminal model**

Connector model

Pressure switch connector pin view



 $1 \rightarrow 11$ and 13 $2 \,{\to}\, 12$ $3 \rightarrow 14$

- -- Adjustable value
- --- Non adjustable value

Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

Accessories: page 70

References, characteristics

Electromechanical pressure switches

OsiSense XML

Size 300 bar (4350 psi)

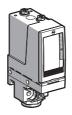
Adjustable differential, for regulation between 2 thresholds Switches with 1 CO single-pole contact

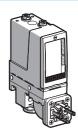
Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLB

Adjustable range of switching point (PH)

With setting scale





(Rising pressure)	· ,	` , ,			
Electrical connection		Terminals	DIN connector		
References (1)					
Fluids controlled (2) (5)	Hydraulic oils, up to + 160°C	XMLB300D2S12	XMLB300D2C11		
	Fresh water, up to + 160°C	XMLB300E2S12	XMLB300E2C11		
	Corrosive fluids, air, up to + 160°C	XMLB300N2S12	XMLB300N2C11		
Weight (kg)		0.750	0.780		
Complementary c	haracteristics not sho	wn under general charact	eristics (page 17)		
Possible differential	Min. at low setting (3)	19.4 bar (281.3 psi)	19.4 bar (281.3 psi)		
(subtract from PH	Min. at high setting (4)	37 bar (536.5 psi)			
to give PB)	Max. at high setting	200 bar (2900 psi)			
Maximum permissible	Per cycle	375 bar (5437.5 psi)			
pressure	Accidental	675 bar (9787.5 psi)			
Destruction pressure		1350 bar (19,575 psi)			
Mechanical life		3 x 10 ⁶ operating cycles	3 x 10 ⁶ operating cycles		
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for I	1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Connector type for connector models		EN 175301-803-A (ex-DIN 43650	EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70		
Pressure switch type		Piston			
		(1) For 1 entry tapped for n° 13 cab	le gland, replace S12 by S11 (example: XMLB300D2S12		

22...300 bar (319...4350 psi)

- becomes XMLB300D2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: - 1.5 bar, + 1.7 bar (- 21.75 psi, + 24.65 psi).

 (4) Deviation of the differential at high setting point for switches of the same size:
- 1 bar, + 4 bar (- 14.5 psi, + 58 psi). (5) Only for control of group 2 fluids, in accordance with directive 97/23/EEC.

Operating curves

Rising pressure 300 par 300 100 22 0 100 200 263 bar 26 Falling pressure

PH

Connection

Terminal model

Connector model

Pressure switch connector pin view



 $1 \rightarrow$ 11 and 13

 $2 \rightarrow 12$ $3 \rightarrow 14$

- 1 Maximum differential
- Minimum differential

--- Adjustable value

Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

Accessories: page 70



OsiSense XML

Size 300 bar (4350 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 2 CO single-pole contacts

Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLC

With setting scale



(Rising pressure)		22300 bar (3194350 psi)
		Terminals
References (1)		
Fluids controlled (2) (4)	Hydraulic oils, up to + 160°C	XMLC300D2S12
	Fresh water, up to + 160°C	XMLC300E2S12
	Corrosive fluids, air, up to + 160°C	XMLC300N2S12
Weight (kg)		0.750
Complementary c	haracteristics not sho	wn under general characteristics (page 17)
Possible differential	Min. at low setting (3)	16 bar (232 psi)
(subtract from PH	Min. at high setting (3)	35 bar (507.5 psi)
to give PB)	Max. at high setting	240 bar (3480 psi)
Maximum permissible pressure	Per cycle	375 bar (5437.5 psi)
	Accidental	675 bar (9787.5 psi)
Destruction pressure		1350 bar (19,575 psi)
Mechanical life		3 x 10 ⁶ operating cycles

Piston

Pressure

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLC300D2S12 becomes XMLC300D2S11).
 (2) Component materials of units in contact with the fluid, see pages 76 and 77.
 (3) Deviation of the differential at low and high setting points for switches of the same size:

1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm $\,$

- ± 0.9 bar (± 13.05 psi).
- (4) Only for control of group 2 fluids, in accordance with directive 97/23/EEC.

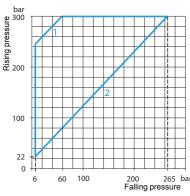
Operating curves

Cable entry for terminal models Pressure switch type

РΗ РΒ







1 Maximum differential 2 Minimum differential

- Adjustable value

Other versions



OsiSense XML

Size 300 bar (4350 psi)

Dual stage, fixed differential, for detection at each threshold Switches with 2 CO single-pole contacts (one per stage) Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLD

Without setting scale



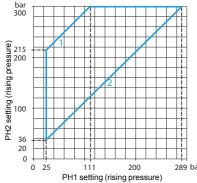
Adjustable range of each switching point (Rising pressure)	2nd stage switching point (PH2)	36300 bar (5224350 psi)
	1st stage switching point (PH1)	25289 bar (362.54190.5 psi)
Spread between 2 stages (PH2 - PH1)		11189 bar (159.52740.5 psi)
Electrical connection		Terminals
References (1)		
Fluids controlled (2) (5)	Hydraulic oils, up to + 160°C	XMLD300D1S12
	Fresh water, up to + 160°C	XMLD300E1S12
	Corrosive fluids, air, up to + 160°C	XMLD300N1S12
Weight (kg)		0.750
Complementary ch	aracteristics not shown	under general characteristics (page 17)
Natural differential	At low setting (3)	17 bar (246.5 psi)
(subtract from PH1/PH2	At high setting (4)	42 bar (609 psi)

Complementary characteristics not shown under general characteristics (page 17)			
Natural differential	At low setting (3)	17 bar (246.5 psi)	
(subtract from PH1/PH2 to give PB1/PB2)	At high setting (4)	42 bar (609 psi)	
Maximum permissible	Per cycle	375 bar (5437.5 psi)	
pressure	Accidental	675 bar (9787.5 psi)	
Destruction pressure		1350 bar (19,575 psi)	
Mechanical life		3 x 10 ⁶ operating cycles	
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
Pressure switch type		Piston	

⁽¹⁾ For 1 entry tapped for n° 13 cable gland, replace **S12** by **S11** (example: **XMLD300D1S12** becomes XMLD300D1S11).

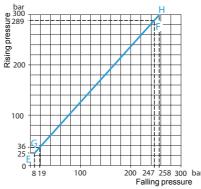
Operating curves

High setting tripping points of contacts 1 and 2

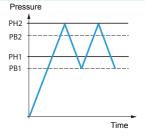


- Maximum differential 2 Minimum differential
- EF Contact 1 (stage 1) GH Contact 2 (stage 2)

Natural differential of contacts 1 and 2







- --- Adjustable value
- --- Non adjustable value

Connection **Terminal model**

Contact 2

Contact 1 (stage 2) (stage 1)



Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.





⁽²⁾ Component materials of units in contact with the fluid, see pages 76 and 77.

⁽³⁾ Deviation of the differential at low setting point for switches of the same size: ± 2.5 bar (± 36.25 psi).

⁽⁴⁾ Deviation of the differential at high setting point for switches of the same size: ± 9 bar (± 130.5 psi).

⁽⁵⁾ Only for control of group 2 fluids, in accordance with directive 97/23/EEC.

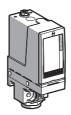
OsiSense XML

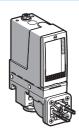
Size 500 bar (7250 psi)

Fixed differential, for detection of a single threshold Switches with 1 CO single-pole contact Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLA

With setting scale



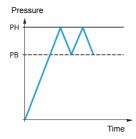


Adjustable range of switching point (PH) (Rising pressure)		30500 bar (4357250 psi)	30500 bar (4357250 psi)	
Electrical connection		Terminals	DIN connector	
References (1)				
Fluids controlled (2) (5)	Hydraulic oils, up to + 160°C	XMLA500D2S12	XMLA500D2C11	
	Fresh water, up to + 160°C	XMLA500E2S12	XMLA500E2C11	
	Corrosive fluids, air, up to + 160°C	XMLA500N2S12	XMLA500N2C11	
Weight (kg)		0.750	0.780	
Complementary characteristics not shown		own under general charact	teristics (page 17)	
Natural differential	At low setting (3)	20 bar (290 psi)	20 bar (290 psi)	
(subtract from PH to give PB)	At high setting (4)	45 bar (652.5 psi)	45 bar (652.5 psi)	
Maximum permissible	Per cycle	625 bar (9062.5 psi)	625 bar (9062.5 psi)	
pressure	Accidental	1125 bar (16,312.5 psi)	1125 bar (16,312.5 psi)	
Destruction pressure		2250 bar (32,625 psi)	2250 bar (32,625 psi)	
Mechanical life		3 x 10 ⁶ operating cycles	3 x 10 ⁶ operating cycles	
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for	1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm	
Connector type for connector models		EN 175301-803-A (ex-DIN 43650	EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70	
Pressure switch type		Piston		

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLA500D2S12 becomes XMLA500D2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: ± 6 bar (± 87 psi). (4) Deviation of the differential at high setting point for switches of the same size:
- ± 10 bar (± 145 psi).
- (5) Only for control of group 2 fluids, in accordance with directive 97/23/EEC.

Operating curves

300 200 10 100 400 455 bar Falling pressure





Connection



Connector model

Pressure switch connector pin view



 $1 \rightarrow 11$ and 13 $2 \,{\to}\, 12$ $3 \rightarrow 14$

- -- Adjustable value
- --- Non adjustable value

Other versions

OsiSense XML

Size 500 bar (7250 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 1 CO single-pole contact

Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLB

With setting scale





Adjustable range of switching point (PH) (Rising pressure)		30500 bar (4357250 psi)	30500 bar (4357250 psi)		
		Terminals	DIN connector		
References (1)					
Fluids controlled (2) (5)	Hydraulic oils, up to + 160°C	XMLB500D2S12	XMLB500D2C11		
	Fresh water, up to + 160°C	XMLB500E2S12	XMLB500E2C11		
	Corrosive fluids, air, up to + 160°C	XMLB500N2S12	XMLB500N2C11		
Weight (kg)		0.750	0.780		
Complementary characteristics not shown		wn under general characte	ristics (page 17)		
Possible differential	Min. at low setting (3)	23 bar (333.5 psi)	23 bar (333.5 psi)		
(subtract from PH	Min. at high setting (4)	52.6 bar (762.7 psi)	52.6 bar (762.7 psi)		
to give PB)	Max. at high setting	300 bar (4350 psi)	300 bar (4350 psi)		
Maximum permissible	Per cycle	625 bar (9062.5 psi)	625 bar (9062.5 psi)		
pressure	Accidental	1125 bar (16,312.5 psi)	1125 bar (16,312.5 psi)		
Destruction pressure		2250 bar (32,625 psi)			
Mechanical life		3 x 10 ⁶ operating cycles	3 x 10 ⁶ operating cycles		
Cable entry for terminal models		1 entry tapped M20 x 1.5 mm for IS	1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm		
Connector type for connector models		EN 175301-803-A (ex-DIN 43650A	EN 175301-803-A (ex-DIN 43650A), 4-pin male. For suitable female connector, see page 70		
Pressure switch type		Piston			

- (1) For 1 entry tapped for n° 13 cable gland, replace **S12** by **S11** (example: **XMLB500D2S12** becomes XMLB500D2S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: - 2.6 bar, + 3.8 bar (- 37.7 psi, + 55.1 psi).
- (4) Deviation of the differential at high setting point for switches of the same size: -14.8 bar, +11.2 bar (-214.6 psi, +162.4 psi).
 (5) Only for control of group 2 fluids, in accordance with directive 97/23/EEC.

Operating curves

300

200

100

Pressure

Connection

Terminal model

Connector model

Pressure switch connector pin view



 $1 \rightarrow 11$ and 13 $2 \rightarrow 12$

 $3 \rightarrow 14$

1 Maximum differential

200

2 Minimum differential

--- Adjustable value

Other versions

Pressure switches with alternative tapped cable entries: NPT, etc. Please consult our Customer Care Centre.

Accessories page 70

Dimensions: pages 71 to 73

400 447.4 bar Falling pressure

OsiSense XML

Size 500 bar (7250 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 2 CO single-pole contacts

Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLC

With setting scale



Adjustable range of switching point (PH) (Rising pressure)		30500 bar (4357250 psi)
Electrical connection		Terminals
References (1)		
Fluids controlled	Hydraulic oils, up to + 160°C	XMLC500D2S12
	Fresh water, up to + 160°C	XMLC500E2S12
	Corrosive fluids, air, up to + 160°C	XMLC500N2S12
Weight (kg)		0.750
Complementary c	haracteristics not sho	wn under general characteristics (page 17)
Possible differential	Min. at low setting (3)	19 bar (275.5 psi)
(subtract from PH	Min. at high setting (3)	52 bar (754 psi)
to give PB)	Max. at high setting	340 bar (4930 psi)
Maximum permissible pressure	Per cycle	625 bar (9062.5 psi)
	Accidental	1125 bar (16,312.5 psi)
Destruction pressure		2250 bar (32,625 psi)
Mechanical life		3 x 10 ⁶ operating cycles

Piston

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLC500D2S12 becomes XMLC500D2S11).

 (2) Component materials of units in contact with the fluid, see pages 76 and 77.

 (3) Deviation of the differential at low and high setting points for switches of the same size:

1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity $\overline{7}$ to 13 mm

- ± 0.9 bar (± 13.05 psi).
- (4) Only for control of group 2 fluids, in accordance with directive 97/23/EEC.

Operating curves

Cable entry for terminal models Pressure switch type

300 200 100 30 400 448 ba 100 160 200 Falling pressure

Pressure РΗ PB Time



Connection **Terminal model**

- Adjustable value

2 Minimum differential Other versions

1 Maximum differential

OsiSense XML

Size 500 bar (7250 psi)

Dual stage, fixed differential, for detection at each threshold Switches with 2 CO single-pole contacts (one per stage) Fluid connection G 1/4 (female)

Pressure switches OsiSense XMLD

Without setting scale

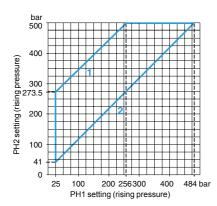


Adjustable range of each	2nd stage switching point (PH2)	41500 bar (594.57250 psi)			
switching point (Rising pressure)	1st stage switching point (PH1)	25484 bar (362.57018 psi)			
Spread between 2 stages (PH2 - PH1)		16244 bar (2323538 psi)			
Electrical connection		Terminals			
References (1)					
Fluids controlled (2) (5)	Hydraulic oils, up to + 160°C	XMLD500D1S12			
	Fresh water, up to + 160°C	XMLD500E1S12			
	Corrosive fluids, air, up to + 160°C	XMLD500N1S12			
Weight (kg)		0.750			
Complementary ch	aracteristics not shown	under general characteristics (page 17)			
Natural differential (subtract from PH1/PH2 to give PB1/PB2)	At low setting (3)	21 bar (304.5 psi)			
	At high setting (4)	65 bar (942.5 psi)			
Maximum permissible pressure	Per cycle	625 bar (9062.5 psi)			
	Accidental	1125 bar (16,312.5 psi)			
Destruction pressure		2250 bar (32,625 psi)			
Mechanical life	<u> </u>	3 x 10 ⁶ operating cycles			
Cable entry for terminal mod	dels	1 entry tapped M20 x 1.5 mm for ISO cable gland, clamping capacity 7 to 13 mm			
Pressure switch type		Piston			

- (1) For 1 entry tapped for n° 13 cable gland, replace S12 by S11 (example: XMLD500D1S12 becomes XMLD500D1S11).
- (2) Component materials of units in contact with the fluid, see pages 76 and 77.
- (3) Deviation of the differential at low setting point for switches of the same size: ± 3 bar (± 43.5 psi).
- (4) Deviation of the differential at high setting point for switches of the same size: ± 10 bar (± 145 psi).
- (5) Only for control of group 2 fluids, in accordance with directive 97/23/EEC.

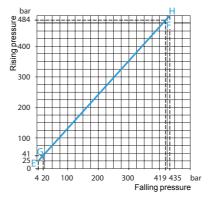
Operating curves

High setting tripping points of contacts 1 and 2

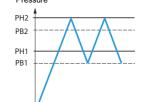


- 1 Maximum differential
- 2 Minimum differential

Natural differential of contacts 1 and 2



EF Contact 1 (stage 1) GH Contact 2 (stage 2)



- Adjustable value --- Non adjustable value

Connection

Terminal model

Contact 2 Contact 1 (stage 2) (stage 1)

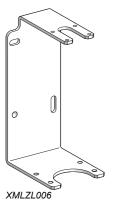
Time

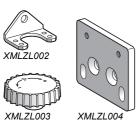


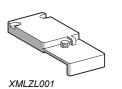
Other versions

Electromechanical pressure and vacuum switches OsiSense XMLA, XMLB, XMLC and XMLD

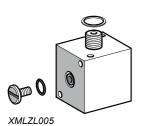
Accessories and replacement parts













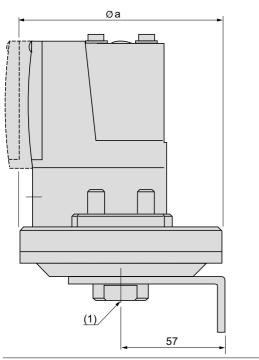


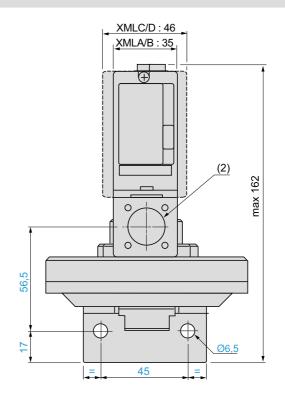
Description		Specific characteristics	For use with switches	Unit reference	Weight kg
Rear fixing bracket for vibrations > 2 gn		_	XML•L35 XML•001	XMLZL006	0.230
Additional top support bracket for vibrations > 4 gn		-	XMLAM01 XML•M05 XMLA004 XML•010 XML•5	XMLZL002	0.020
Knurled adjustment knob, Ø 36 mm fits over adjustment screw(s) to facilitate setting		_	All models	XMLZL003	0.010
Fixing plate for replacing an XMJA or XMGB switch by an XML switch		_	XMLAM01 XML•M05 XMLA004 XML•010 XML•5	XMLZL004	0.110
Lead sealable protective cover to prevent unauthorised access to adjustment screws and fixing screw of switch cover		-	XMLA XMLB	XMLZL001	0.03
Lead sealable protective co to prevent unauthorised acce screws		_	All models	XMLZL011	0.030
Indicator modules and associated covers, 2 LEDs (orange and green)	Without setting scale	∼ or 24/48 V	XMLA/B	XMLZZ024	0.090
		\sim 110/240 V	XMLA/B	XMLZZ120	0.090
	With setting scale	∼ or == 24/48 V	XMLA	XMLZA024	0.09
			XMLB	XMLZB024	0.09
		\sim 110/240 V	XMLA	XMLZA120	0.090
			XMLB	XMLZB120	0.090
Hydraulic block for base mounting directly onto fluid manifold		-	All models	XMLZL005	0.240
Female EN 175301-803-A connector (ex-DIN 43650A)		-	XML•••••C11	XZCC43FCP40B	0.03
Adaptor, G 1/4"/G 3/8" male/female		_	All models	XMLZL012	0.130
Replacement parts	6				
Sealing gasket		For sizes ≥ 300 bar (XMLA/B/C/D)		XMLZL010	0.01
Diaphragms		_	XML∙S35	XMLZL013	0.060
			XML ∙S02	XMLZL014	0.040
			XML ∙S04	XMLZL015	0.030

Electromechanical pressure and vacuum switches

OsiSense XMLA, XMLB, XMLC and XMLD

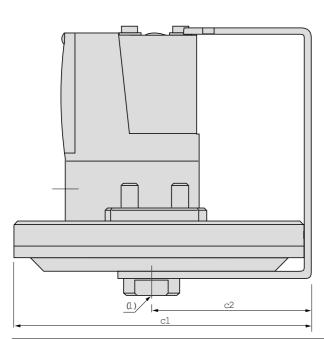
XMLeL35, XMLe001, XMLeS



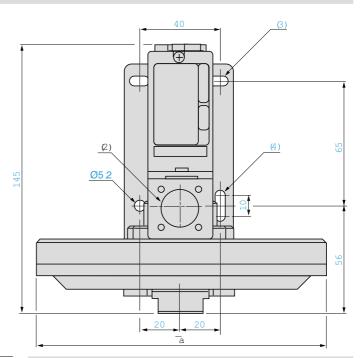


- (1) 1 fluid entry, tapped G 1/4 (BSP female) (2) 1 electrical connections entry, tapped M20 x 1.5 or Pg 13.5

XMLBM03, XMLBL05



- (1) 1 fluid entry, tapped G 1/4 (BSP female) (2) 1 electrical connections entry, tapped M20 x 1.5 or Pg 13.5
- (3) 2 elongated holes Ø 10.2 x 5.2 (4) 1 elongated hole Ø 15.2 x 5.2

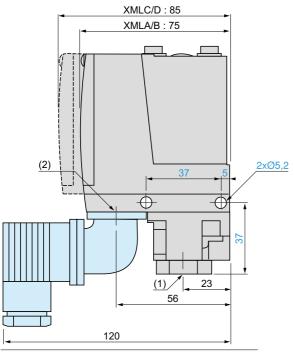


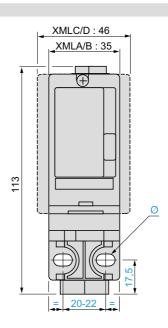
Øa	c1	c2	
150	155.5	80.5	
200	204	104	
110	_	_	
110	_	_	
86	_	_	
	150 200 110 110	150 155.5 200 204 110 – 110 –	150 155.5 80.5 200 204 104 110 - - 110 - -

Electromechanical pressure and vacuum switches

OsiSense XMLA, XMLB, XMLC and XMLD

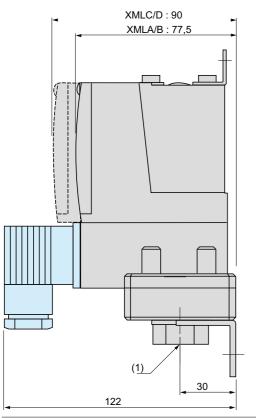
XMLAM01, XMLBM05, XMLCM05, XMLA004, XML•010...500

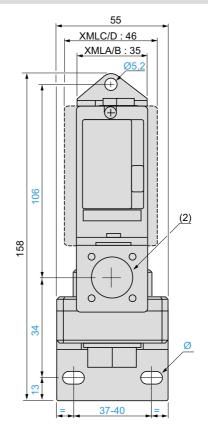




- (1) 1 fluid entry, tapped G 1/4 (BSP female) (2) 1 electrical connections entry, tapped M20 x 1.5 or Pg 13.5

XML•M02, XML•002, XMLB004, XMLC004, XMLD004





- (1) 1 fluid entry, tapped G 1/4 (BSP female)
- (2) 1 electrical connections entry, tapped M20 x 1.5 or Pg 13.5 Ø: 2 elongated holes Ø 10.2 x 5.2

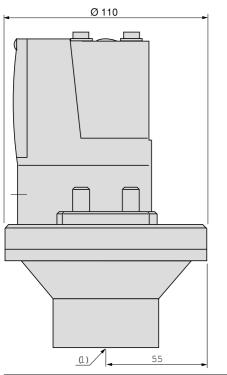
Characteristics pages 17 to 69

References: pages 18 to 69

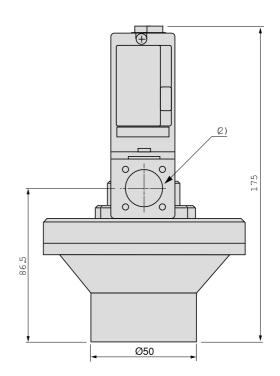
Electromechanical pressure and vacuum switches

OsiSense XMLA, XMLB, XMLC and XMLD

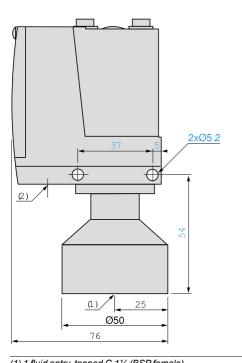
XMLBL35P, XMLB001P



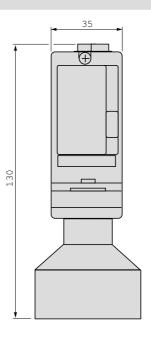
(1) 1 fluid entry, tapped G 1¼ (BSP female) (2) 1 electrical connections entry, tapped M20 x 1.5 or Pg 13.5



XMLBM05P, XMLA004P, XML•010P, XML•020P, XML•035P



(1) 1 fluid entry, tapped G 1¼ (BSP female) (2) 1 electrical connections entry, tapped M20 x 1.5 or Pg 13.5



Electromechanical pressure and vacuum switches

OsiSense XM

Equivalent model references of pressure and vacuum switches XML for previous range switches XM2JM, XMJ and XMG

Pressure and vac	uum switches with fixed dif	ferential	
Old XM2JM	New XMLA	Old XM2JM	New XMLA
XM2JM091	XMLAM01V2S11	XM2JM3004	XMLA300E2S11
XM2JM002	XMLA002A2S11	XM2JM500	XMLA500D2S11
XM2JM0025	XMLA002C2S11	XM2JM5004	XMLA500E2S11
XM2JM004	XMLA004A2S11	XM2JM0912	XMLAM01V2S11
XM2JM0045	XMLA004C2S11	XM2JM0022	XMLA002B2S11
XM2JM0046	XMLA004P2S11	XM2JM00225	XMLA002C2S11
XM2JM012 (1)	XMLA010A2S11	XM2JM0042	XMLA004B2S11
XM2JM012 <i>(1)</i>	XMLA020A2S11	XM2JM00425	XMLA004C2S11
XM2JM0125 (1)	XMLA010C2S11	XM2JM00426	XMLA004P2S11
XM2JM0125 (1)	XMLA020C2S11	XM2JM0122	XMLA010B2S11
XM2JM0126 (1)	XMLA010P2S11	XM2JM01225	XMLA010C2S11
XM2JM0126 (1)	XMLA020P2S11	XM2JM01226	XMLA010P2S11
XM2JM030 (2)	XMLA020A2S11	XM2JM0302	XMLA035B2S11
XM2JM030 (2)	XMLA035A2S11	XM2JM03024	XMLA035B2S11
XM2JM0304 (2)	XMLA020A2S11	XM2JM0502	XMLA070D2S11
XM2JM0304 (2)	XMLA035A2S11	XM2JM05024	XMLA070E2S11
XM2JM050 (3)	XMLA035A2S11	XM2JM1602	XMLA160D2S11
XM2JM050 (3)	XMLA070D2S11	XM2JM16024	XMLA160E2S11
XM2JM0504 (3)	XMLA070B2S11 XMLA035A2S11	XM2JM3002	XMLA300D2S11
XM2JM0504 (3)	XMLA039A2S11 XMLA070E2S11	XM2JM3002 XM2JM30024	XMLA300D2311 XMLA300E2S11
XM2JM160	XMLA160D2S11	XM2JM50024 XM2JM5002	XMLA500E2511 XMLA500D2S11
XM2JM1604	XMLA160E2S11	XM2JM5002 XM2JM50024	XMLA500B2S11
XM2JM300	XMLA300D2S11	AWZJWJOOZ4	AWILAGOULZOTT
Old XMJA	New XMLA	Old XMJA	New XMLA
XMJA091	XMLAM01V2S11	XMJA0507 (3)	XMLA070D2S11
XMJA0915	XMLAM01T2S11	XMJA0507 (4)	XMLA070E2S11
XMJA0037	XMLA004A2S11	XMJA0507 (4)	XMLA070N2S11
XMJA003	XMLA004A2S11	XMJA0707	XMLA070D2S11
XMJA00375	XMLA004C2S11	XMJA070	XMLA070D2S11
XMJA0035	XMLA004C2S11	XMJA07074	XMLA070E2S11
XMJA0127 (1)	XMLA010A2S11	XMJA0704	XMLA070E2S11
XMJA0127 (1)	XMLA020A2S11	XMJA07075	XMLA070N2S11
XMJA012 (1)	XMLA010A2S11	XMJA07078	XMLA070N2S11
XMJA012 (1)	XMLA020A2S11	XMJA0705	XMLA070N2S11
XMJA01275 (1)	XMLA010C2S11	XMJA0708	XMLA070N2S11
XMJA01275 (1)	XMLA020C2S11	XMJA115 (4) (5)	XMLA070D2S11
XMJA0125 (1)	XMLA010C2S11	XMJA115 (4) (5)	XMLA070E2S11
XMJA0125 (1)	XMLA020C2S11	XMJA115 (4) (5)	XMLA070N2S11
XMJA020	XMLA020A2S11	XMJA115 (4) (5)	XMLA160D2S11
XMJA0207	XMLA020A2S11	XMJA115 (4) (5)	XMLA160E2S11
XMJA02075	XMLA020C2S11	XMJA115 (4) (5)	XMLA160N2S11
XMJA0205	XMLA020C2S11	XMJA1157 (4) (5)	XMLA070D2S11
XMJA0307 (2)	XMLA020A2S11	XMJA1157 (4) (5)	XMLA070E2S11
XMJA0307 (2)	XMLA035A2S11	XMJA1157 (4) (5)	XMLA070N2S11
XMJA03074 (2)	XMLA020A2S11	XMJA1157 (4) (5)	XMLA160D2S11
XMJA03074 (2)	XMLA035A2S11	XMJA1157 (4) (5)	XMLA160E2S11
XMJA03078 (2)	XMLA020A2S11	XMJA1157 (4) (5)	XMLA160N2S11
XMJA03078 (2)	XMLA035A2S11	XMJA1607	XMLA160D2S11
XMJA030 (2)	XMLA020A2S11	XMJA160	XMLA160D2S11
XMJA030 (2)	XMLA035A2S11	XMJA16074	XMLA160E2S11
XMJA0304 (2)	XMLA020A2S11	XMJA1604	XMLA160E2S11
XMJA0304 (2)	XMLA035A2S11	XMJA16075	XMLA160N2S11
XMJA0308 (2)	XMLA020A2S11	XMJA16078	XMLA160N2S11
XMJA0308 (2)	XMLA035A2S11	XMJA1605	XMLA160N2S11
XMJA03075 (2)	XMLA020C2S11	XMJA1608	XMLA160N2S11
XMJA03075 (2)	XMLA035C2S11	XMJA3007	XMLA300D2S11
XMJA0305 (2)	XMLA020C2S11	XMJA300	XMLA300D2S11
XMJA0305 (2)	XMLA035C2S11	XMJA30074	XMLA300E2S11
XMJA050 (3)	XMLA035A2S11	XMJA3004	XMLA300E2S11
XMJA050 (3)	XMLA070D2S11	XMJA30075	XMLA300N2S11
XMJA050 (4)	XMLA070E2S11	XMJA30078	XMLA300N2S11
XMJA050 (4)	XMLA070N2S11	XMJA3005	XMLA300N2S11
XMJA0507 (3)	XMLA035A2S11	XMJA3008	XMLA300N2S11
. /			-



Electromechanical pressure and vacuum switches

OsiSense XM

Equivalent model references of pressure and vacuum switches XML for previous range switches XM2JM, XMJ and XMG

Pressure and vacuum switches with fixed differential (continued)							
Old XMJA	New XMLA	Old XMJA	New XMLA				
XMJA5007	XMLA500D2S11	XMJA50075	XMLA500N2S11				
XMJA500	XMLA500D2S11	XMJA50078	XMLA500N2S11				
XMJA50074	XMLA500E2S11	XMJA5005	XMLA500N2S11				
XMJA5004	XMLA500E2S11	XMJA5008	XMLA500N2S11				

Pressure	and vacuum sw	itches with	adjustable dif	ferential			
Old XMGB	New XMLB	Old XMGB	New XMLC	Old XMGB	New XMLB	Old XMGB	New XMLC
XMGB091	XMLBM02V2S11	XMGB0912	XMLCM02V2S11	XMGB0146 (1)	XMLB020P2S11	XMGB01462	(8)
XMGB092	XMLBM02V2S11	XMGB0922	XMLCM02V2S11	XMGB0286 (6)	XMLB020P2S11	XMGB02862	(8)
XMGB093	XMLBM02V2S11 (8)	XMGB0932	XMLCM02V2S11	XMGB0286 (6)	XMLB035P2S11	XMGB02862	(8)
XMGB0911	XMLBM02T2S11	XMGB09112	XMLCM02T2S11	XMGB070	XMLB070D2S11	XMGB0702	XMLC070D2S11
XMGB0921	XMLBM02T2S11	XMGB09212	XMLCM02T2S11	XMGB140	XMLB160D2S11	XMGB1402	XMLC160D2S11
XMGB0917	XMLBM02T2S11	XMGB09172	XMLCM02T2S11	XMGB280	XMLB300D2S11	XMGB2802	XMLC300D2S11
XMGB0927	XMLBM02T2S11	XMGB09272	XMLCM02T2S11	XMGB500	XMLB500D2S11	XMGB5002	XMLC500D2S11
XMGB001 (4)	XMLBL35R2S11	XMGB0012 (4)	XMLCL35R2S11	XMGB0704	XMLB070E2S11	XMGB07042	XMLC070E2S11
XMGB001 (4)	XMLBL35S2S11	XMGB0012 (4)	XMLCL35S2S11	XMGB1404	XMLB160E2S11	XMGB14042	XMLC160E2S11
XMGB002	XMLB002A2S11	XMGB0022	XMLC002B2S11	XMGB2804	XMLB300E2S11	XMGB28042	XMLC300E2S11
XMGB003	XMLB004A2S11	XMGB0032	XMLC004B2S11	XMGB5004	XMLB500E2S11	XMGB50042	XMLC500E2S11
XMGB008	XMLB010A2S11	XMGB0082	XMLC010B2S11	XMGB0708	XMLB070N2S11	XMGB07082	XMLC070N2S11
XMGB014 (1)	XMLB010A2S11	XMGB0142 (1)	XMLC010A2S11	XMGB1408	XMLB160N2S11	XMGB14082	XMLC160N2S11
XMGB014 (1)	XMLB020A2S11	XMGB0142 (1)	XMLC020B2S11	XMGB2808	XMLB300N2S11	XMGB28082	XMLC300N2S11
XMGB028 (6)	XMLB020A2S11	XMGB0282 (6)	XMLC020A2S11	XMGB5008	XMLB500N2S11	XMGB50082	XMLC500N2S11
XMGB028 (6)	XMLB035A2S11	XMGB0282 (6)	XMLC035B2S11	XMGB0701 (4)	XMLB070D2S11	XMGB07012 (4)	XMLC070D2S11
XMGB0011 (4)	XMLBL35R2S11	XMGB00112 (4)	XMLCL35R2S11	XMGB0701 (4)	XMLB070E2S11	XMGB07012 (4)	XMLC070E2S11
XMGB0011 (4)	XMLBL35S2S11	XMGB00112 (4)	XMLCL35S2S11	XMGB1401 (4)	XMLB160D2S11	XMGB14012 (4)	XMLC160D2S11
XMGB0021	XMLB002B2S11	XMGB00212	XMLC002B2S11	XMGB1401 (4)	XMLB160E2S11	XMGB14012 (4)	XMLC160E2S11
XMGB0031	XMLB004B2S11	XMGB00312	XMLC004B2S11	XMGB2801 (4)	XMLB300D2S11	XMGB28012 (4)	XMLC300D2S11
XMGB0081	XMLB010B2S11	XMGB00812	XMLC010B2S11	XMGB2801 (4)	XMLB300E2S11	XMGB28012 (4)	XMLC300E2S11
XMGB0141 (1)	XMLB010B2S11	XMGB01412 (1)	XMLC010B2S11	XMGB5001 (4)	XMLB500D2S11	XMGB50012 (4)	XMLC500D2S11
XMGB0141 (1)	XMLB020B2S11	XMGB01412 (1)	XMLC020B2S11	XMGB5001 (4)	XMLB500E2S11	XMGB50012 (4)	XMLC500E2S11
XMGB0281 (6)	XMLB020B2S11	XMGB02812 (6)	XMLC020B2S11	XMGB0707	XMLB070N2S11	XMGB07072	XMLC070N2S11
XMGB0281 (6)	XMLB035B2S11	XMGB02812 (6)	XMLC035B2S11	XMGB1407	XMLB160N2S11	XMGB14072	XMLC160N2S11
XMGB0017	XMLBL35S2S11	XMGB00172	XMLCL35S2S11	XMGB2807	XMLB300N2S11	XMGB28072	XMLC300N2S11
XMGB0027	XMLB002C2S11	XMGB00272	XMLC002C2S11	XMGB5007	XMLB500N2S11	XMGB50072	XMLC500N2S11
XMGB0037	XMLB004C2S11	XMGB00372	XMLC004C2S11	XMGB0018	XMLBS35R2S11	XMGB00182	XMLCS35R2S11
XMGB0087	XMLB010C2S11	XMGB00872	XMLC010C2S11	XMGB0028	XMLBS02B2S11	XMGB00282	XMLCS02B2S11
XMGB0147 (1)	XMLB010C2S11	XMGB01472 (1)	XMLC010C2S11	XMGB0038	XMLBS04B2S11	XMGB00382	XMLCS04B2S11
XMGB0147 (1)	XMLB020C2S11	XMGB01472 (1)	XMLC020C2S11	XMGB0088	XMLBS10A2S11 (7)	XMGB00882	XMLCS10A2S11 (7)
XMGB0287 (6)	XMLB020C2S11	XMGB02872 (6)	XMLC020C2S11	XMGB0148 (1)	XMLBS10A2S11 (7)	XMGB01482 (1)	XMLCS10A2S11 (7)
XMGB0287 (6)	XMLB035C2S11	XMGB02872 (6)	XMLC035C2S11	XMGB0148 (1)	XMLBS20A2S11 (7)	XMGB01482 (1)	XMLCS20A2S11 (7)
XMGB0016	XMLBL35P2S11	XMGB00162	(8)	XMGB0120 (5) (4)	XMLB070D2S11	XMGB01202 (5) (4)	XMLC070D2S11
XMGB0026	XMLBM05P2S11	XMGB00262	(8)	XMGB0120 (5) (4)	XMLB070E2S11	XMGB01202 (5) (4)	XMLC070E2S11
XMGB0036	XMLBM05P2S11	XMGB00362	(8)	XMGB0120 (5) (4)	XMLB160D2S11	XMGB01202 (5) (4)	XMLC160D2S11
XMGB0086	XMLB010P2S11	XMGB00862	(8)	XMGB0120 (5) (4)	XMLB160E2S11	XMGB01202 (5) (4)	XMLC160E2S11
XMGB0146 (1)	XMLB010P2S11	XMGB01462	(8)				

(1) Depending on required adjustment range, examples:

pressure < 8 bar = XMLA/B/C010, pressure > 8 bar = XMLA/B/C020.

 ${\it (2) Depending on required adjustment range, examples:}$

pressure < 18 bar = XMLA/B/C020, pressure > 18 bar = XMLA/B/C035.

(3) Depending on required adjustment range, examples:

pressure < 32 bar = XMLA/B/C035, pressure > 32 bar = XMLA/B/C070.

(4) Depending on fluid to be controlled.

 ${\it (5) Depending on required adjustment range, examples:}\\$

pressure < 65 bar = XMLA/B/C070, pressure > 65 bar = XMLA/B/C160.

(6) Depending on required adjustment range, examples:

pressure < 18 bar = **XMLA/B/C020**, pressure > 18 bar = **XMLA/B/C035**.

(7) Temperature of fluid to be controlled limited to 70°C

 ${\it (8) Please consult our Customer Care Centre}.$



Component materials of units in contact with fluid

This information will assist in checking the corrosion resistance of the pressure or vacuum switches in relation to the fluids controlled

Electromechanical pressure and vacuum switches

OsiSense XML

	Compone	nt materials	s in conta	ct with fluid	l			
Pressure or vacuum switch reference	Zinc alloy	Stainless steel	Brass	Steel	Nitrile	PTFE	FPM, FKM	Aluminium
XMLAM01Veeee, XMLeM02Veeee		(1)						
XMLAM01T••••, XML•M02T••••		(2)						
XMLBM03R••••								
XMLBM03S••••		(3)						
XMLeM05Aeeee		(1)						
XMLeM05Beeee		(1)						
XMLeM05Ceeee		(1)						
XMLBM05P●●●●		(1)						
XMLBL05Reese								
XMLBL05S••••		(3)						
XMLeL35Reese, XMLeS35Reese		(1)						
XMLeL35Seeee		(3)						
XMLBL35Peeee		(1)						
XMLe001Reese		(1)						
XML=001S====		(3)						
XMLB001Peeee		(1)						
XML=002A====								
XMLe002Beeee, XMLeS02Beeee								
XML•002C••••		(3)						
XMLA004A••••								
XMLA004B••••								
XMLA004C••••		(2)						
XMLA004P••••								

Materials in contact with fluid

(1) 1.4307 (AISI 304L) (2) 1.4404 (AISI 316L) (3) 1.4305 (AISI 316L)



Component materials of units in contact with fluid

This information will assist in checking the corrosion resistance of the pressure or vacuum switches in relation to the fluids controlled

Electromechanical pressure and vacuum switches

OsiSense XML

	Materials	in contact v	vith fluid					
Pressure switch reference	Zinc alloy	Stainless steel	Brass	Steel	Nitrile	PTFE	FPM, FKM	Aluminium
XMLB004A••••								
XMLe004Beese, XMLeS04Beese								
XML•004C••••		(3)						
XMLe010Aeeee								
XMLe010Beeee								
XMLe010Ceeee		(2)						
XMLe010Peeee, XMLeS10Aeeee								
XMLe020Aeeee, XMLe035Aeeee								
XMLe020Beeee, XMLe035Beeee								
XMLe020Ceeee, XMLe035Ceeee		(2)						
XMLe020Peese, XMLe035Peese, XMLeS20Aeeee								
XMLe070Deese, XMLe160Deese								
XMLe070Eeeee, XMLe160Eeeee		(4)						
XMLe070Neese, XMLe160Neese		(5)						
XML•300D••••								
XMLe300Eeeee		(4)						
XMLe300Neeee		(5)						
XMLe500Deeee								
XMLe500Eeeee								
XMLe500Neeee4		(5)						

Component materials in contact with fluid

^{(2) 1.4404 (}AISI 316L)

^{(3) 1.4305 (}AISI 316L) (4) 1.4404 (AISI 316L) + 1.4462 (5) 1.4404 (AISI 316L) + 1.4305 (AISI 303)

OsiSense XM

For control circuits, OsiSense ACW and ADW

Presentation

Pressure switches OsiSense ACW and ADW are switches for control circuits, with an adjustable differential.

Pressure switches OsiSense ACW are used to control the pressure of air, oils and other non corrosive fluids, up to 131 bar.

Pressure switches OsiSense ADW are used to control the pressure of oils (including synthetic), up to 340 bar.

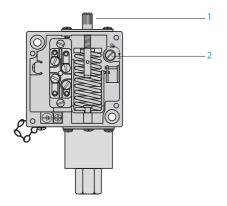
Setting, operating principle

Pressure switches OsiSense ACW

The switching point on falling pressure (low point - PB) is adjusted using screw 1.

The switching point on rising pressure (high point - PH) is made by adjusting screw 2. This sets the differential between the low and high points, giving a switching point on rising pressure of the displayed low point setting plus the differential setting.

The two adjustments are completely independent.



Contact block operation

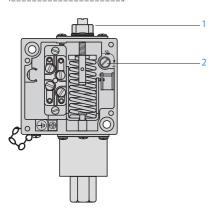
When the rising pressure reaches the high point setting (low point setting + differential setting), contact B (1-2) opens and contact A (3-4) closes. The contacts remain actuated until the pressure falls back to the low point setting.



The switching point on rising pressure (high point - PH) is adjusted using screw 1.

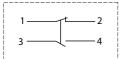
The switching point on falling pressure (low point - PB) is made by adjusting screw 2. This sets the differential between the high and low points, giving a switching point on falling pressure of the displayed high point setting minus the differential setting.

The two adjustments are completely independent.



Contact block operation

When the rising pressure reaches the high point setting, contact B (1-2) opens and contact A (3-4) closes. The contacts remain actuated until the pressure falls back to the low point setting (high point setting - differential setting).



For control circuits, OsiSense ACW and ADW

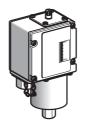
Pressure switch type		ACW (bellows operated)	ADW (pis	ton operated)
Conformity to standards		C€, IEC/EN 60947-5-1		
Product certifications		CSA, UL (Recognized)		
Protective treatment		"TC"		
Materials		Zinc alloy case Phosphor bronze bellows	Buna N di cylinder Pressure seal: Buna	case switches with drainage hole: laphragm, steel piston, cast iron switches with Quad-Ring piston a N diaphragm, Teflon and Viton lless steel piston and cylinder
Ambient air temperature (for operation)	°C	- 56+ 85	- 30+ 85	5
Fluids controlled		Air, oils and other non corrosive fluid from - 73 to + 125°C	(for ADW) Oils (inclu	other fluids, from - 25 to + 120°C 5, 6, 7S1, 25, 26, 27S1) rding synthetic) only, from - 5°C (for ADW3, 4, 7, 23, 24, 27)
Degree of protection		IP 65 conforming to IEC/EN 60529		
Fluid connection		G 1/4 (BSP female) conforming to NF E 03-005, ISO 228		P female) conforming 3-005, ISO 228
Electrical connection		Terminals. 1 tapped entry for n° 13 (E		
Contact block characteristics				
Rated operational current Category AC-15			ingle-pole re switches	2 CO single-pole pressure switches le 3 A 3 A 1.5 A 0.7 A
Category DC-13		Ue Ie 24 V 5 A 110 V 0.5 A 220 V 0.25 A 500 V 0.10 A 600 V 0.06 A		le 1.5 A 0.25 A - -
Short-circuit protection		10 A cartridge fuse type gG		
Connection		Screw terminals Minimum clamping capacity: 1 x 1 m Maximum clamping capacity: 2 x 2.5		



For control circuits, OsiSense ACW Sizes 0.70 to 131 bar (10.15 to 1900 psi) Adjustable differential, for regulation between 2 thresholds Fluid connection G 1/4 (female)

Pressure switches OsiSense ACW

Bellows operated



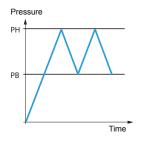


Adjustable range of switch (Falling pressure)	djustable range of switching point (PB) alling pressure)			0.071.4 bar (1.0120.3 psi)	0.075.2 bar (1.0175.4 psi)	0.077.6 bar (1.01110.2 psi)	
References							
Switches with 1 CO sir	ngle-pole contact						
Fluids controlled	Air, oils and othe fluids, from - 73 to (1)		ACW3M129012	ACW4M129012	ACW5M129012	ACW1M129012	
Weight (kg)			1.750		1.550		
Switches with 2 CO sir	ngle-pole contacts	,			1		
Fluids controlled	Air, oils and othe fluids, from - 73 (1)		ACW23M129012	ACW24M129012	ACW25M129012	ACW21M129012	
Weight (kg)			1.750		1.550		
Complementary c	haracteristics	not shown	under general	characteristics	(page 79)		
Possible differential (add to PB to give PH)	1 CO switches	Min.	0.04 bar (0.58 psi)	0.10 bar (1.45 psi)	0.30 bar (4.35 psi)	0.50 bar (7.25 psi)	
		Max.	0.34 bar (4.93 psi)	0.40 bar (5.8 psi)	1 bar (14.5 psi)	2 bar (29 psi)	
	2 CO switches	Min.	0.05 bar (0.73 psi)	0.14 bar (2.03 psi)	0.41 bar (5.95 psi)	0.9 bar (13.05 psi)	
		Max.	0.48 bar (6.96 psi)	0.70 bar (10.15 psi)	1.4 bar (20.3 psi)	2.8 bar (40.6 psi)	
Maximum permissible pre	ssure		2 bar (29 psi)		7 bar (101.5 psi)	17 bar (246.5 psi)	
Mechanical life			1 x 10 ⁶ operating cycl	es (average value, depe	nding on application)		
Cable entry			1 entry tapped for n° 13 cable gland, conforming to NF C 68-300 (DIN Pg 13.5). Clamping capacity 9 to 13 mm				
			(1) Can "Component of	notorials of units in conta	-4i4b-4b 4biall 7	·^	

(1) See "Component materials of units in contact with the fluid", page 79.

Operating curve

Contact block connections





-- Adjustable value

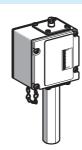
Other versions

Pressure switches with alternative tapped cable entries: ISO, NPT, etc. Please consult our Customer Care Centre.

Bellows operated







1.4…12 bar (20.3…174 psi)	0.718 bar (10.15261 psi)	0.721 bar (10.15304.5 psi)	5.234 bar (75.4493 psi)	1069 bar (1451000 psi)	24131 bar (3481900 psi)	
References						
Switches with 1 C	O single-pole contact					
ACW8M129012	ACW9M129012	ACW2M129012	ACW6M129012	ACW7M129012	ACW10M129012	
1.550		2.100				
Switches with 2 C	O single-pole contacts					
ACW28M129012	ACW29M129012	ACW22M129012	ACW26M129012	ACW27M129012	ACW20M129012	
1.550		2.100				

Complementary	Complementary characteristics not shown under general characteristics (page 79)									
0.70 bar (10.15 psi)	1 bar (14.5 psi)	1.7 bar (24.7 psi)	3.4 bar (49.3 psi)	5.9 bar (85.6 psi)	11 bar (159.5 psi)					
2 bar (29 psi)	1.7 bar (24.7 psi)	8.6 bar (124.7 psi)	8.3 bar (120.4 psi)	10 bar (145 psi)	21 bar (304.5 psi)					
1 bar (14.5 psi)	1.6 bar (23.2 psi)	2.4 bar (34.8 psi)	5.9 bar (85.6 psi)	9.3 bar (134.9 psi)	17 bar (246.5 psi)					
2.8 bar (40.6 psi)	2.4 bar (34.8 psi)	10 bar (145 psi)	11 bar (159.5 psi)	14 bar (203 psi)	24 bar (348 psi)					
17 bar (246.5 psi)	20 bar (290 psi)	41 bar (549.5 psi)	140 bar (2030 psi)	140 bar (2030 psi)	175 bar (2538 psi)					

¹ x 10⁶ operating cycles (average value, depending on application)

1 entry tapped for n° 13 cable gland, conforming to NF C 68-300 (DIN Pg 13.5). Clamping capacity 9 to 13 mm

Other versions

Pressure switches with alternative tapped cable entries: ISO, NPT, etc. Please consult our Customer Care Centre.



OsiSense XM

For control circuits, OsiSense ADW Sizes 69 to 340 bar (1000 to 4930 psi) Adjustable differential, for regulation between 2 thresholds Fluid connection G 3/8 (female)

28...210 bar

38...340 bar

Pressure switches OsiSense ADW

Adjustable range of switching point (PH)

Piston operated, with drainage hole (1)



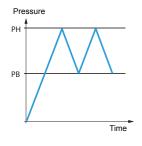
9.3...69 bar

(Rising pressure)			(1351000 psi)	(4063045 psi)	(5514930 psi)		
References							
Switches with 1 CO sing	le-pole contact						
Fluids controlled	Oils (including sy from - 30°C to +		ADW3M129012	ADW4M129012	ADW7M129012		
Weight (kg)			1.880				
Switches with 2 CO sing	le-pole contacts	3					
Fluids controlled	Oils (including sy from - 30°C to +		ADW23M129012	ADW24M129012	ADW27M129012		
Weight (kg)			1.880				
Complementary cha	aracteristics	not shown	under general char	acteristics (page 79)			
Possible differential (subtract from PH to give PB)	1 CO switches	Min.	2.4 bar (34.8 psi)	6.9 bar (100 psi)	8.6 bar (124.7 psi)		
		Max.	9.3 bar (135 psi)	28 bar (406 psi)	38 bar (551 psi)		
	2 CO switches	Min.	3.1 bar (45 psi)	8.6 bar (124.7 psi)	14 bar (203 psi)		
		Max.	14 bar (203 psi)	34 bar (493 psi)	41 bar (594.5 psi)		
Maximum permissible press	ure		690 bar (10 000 psi)	,			
Mechanical life			1 x 10 ^s operating cycles (average value, depending on application)				
Cable entry			1 entry tapped for n° 13 cable gland, conforming to NF C 68-300 (DIN Pg 13.5). Clamping capacity 9 to 13 mm				

⁽¹⁾ Since it is normal for piston type pressure switches (not incorporating a piston seal) to have a slight oil leakage past the piston, a drain hole through the cylinder wall is incorporated. To avoid back pressure, this hole should never be plugged. If for any reason this oil leakage is undesirable, use pressure switches incorporating a Quad-Ring piston seal.

Operating curve

Contact block connections





- Adjustable value

Other versions

Pressure switches with alternative tapped cable entries: ISO, NPT, etc. Please consult our Customer Care Centre.

Dimensions: page 84



⁽²⁾ See "Component materials of units in contact with the fluid", page 79.

⁽³⁾ Only for control of group 2 fluids, in accordance with directive 97/23/EEC.

Pressure switches OsiSense ADW

Piston operated, with Quad-Ring piston seal

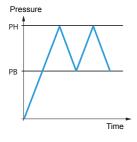


		9.369 bar (1351000 psi)	28210 bar (4063045 psi)	38340 bar (5514930 psi)		
References						
Switches with 1 CO sing	le-pole contact					
Fluids controlled	Oils and other flu from - 25°C to +		ADW5M129012	ADW6M129012	ADW7S1M129012	
Weight (kg)	, , , , ,		1.880			
Switches with 2 CO sing	le-pole contacts	•	1			
Fluids controlled	Oils and other fluids, from - 25°C to + 120°C (1) (2)		ADW25M129012	ADW26M129012	ADW27S1M129012	
Weight (kg)			1.880			
Complementary cha	aracteristics	not shown	under general chara	acteristics (page 79)		
Possible differential (subtract from PH to give PB)	1 CO switches	Min./max. at low setting	4.8/6.9 bar (69.6/100 psi)	14/21 bar (203/304.5 psi)	19/25 bar (275.5/362.5 psi)	
		Min./max. at high setting	8.6/10 bar (124.7/145 psi)	28/34 bar (406/493 psi)	38/45 bar (551/652.5 psi)	
	2 CO switches	Min./max. at low setting	6.2/7.9 bar (89.9/114.6 psi)	17/24 bar (246.5/348 psi)	22/28 bar (319/406 psi)	
		Min./max. at high setting	10/12 bar (145/174 psi)	34/39 bar (493/565.5 psi)	44/50 bar (638/725 psi)	
Maximum permissible pressi	ure		690 bar (10,000 psi)			
Mechanical life			1 x 10 ⁶ operating cycles (aver	age value, depending on applic	ation)	
Cable entry			1 entry tapped for n° 13 cable gland, conforming to NF C 68-300 (DIN Pg 13.5). Clamping capacity 9 to 13 mm			
			(1) Soo "Component meterials	of units in contact with the fluid	" naga 70	

(1) See "Component materials of units in contact with the fluid", page 79. (2) Only for control of group 2 fluids, in accordance with directive 97/23/EEC.

Operating curve

Contact block connections





--- Adjustable value

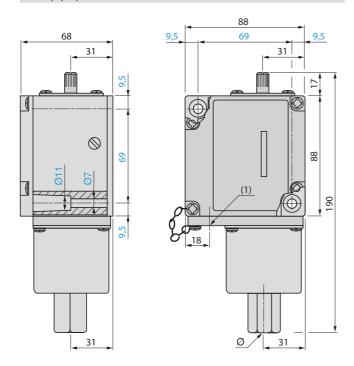
Other versions

Pressure switches with alternative tapped cable entries: ISO, NPT, etc. Please consult our Customer Care Centre.

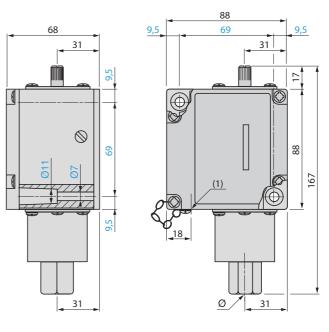


For control circuits, OsiSense ACW





ACW1, 5, 8, 9, 21, 25, 28, 29



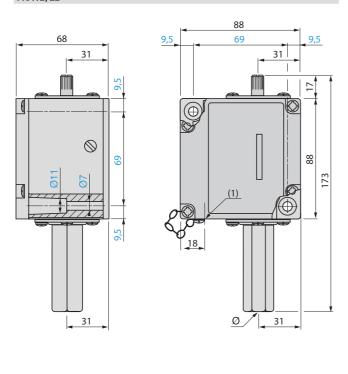
(1) Tapped entry for n° 13 cable gland

Ø: G 1/4 (female)

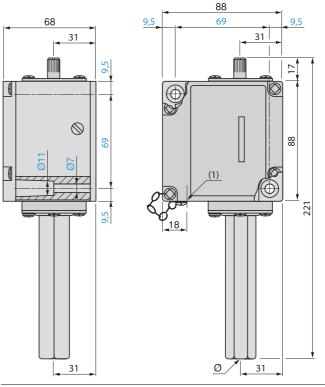
(1) Tapped entry for n° 13 cable gland

Ø: G 1/4 (female)

ACW2, 22



ACW6, 7, 10, 26, 27, 20



(1) Tapped entry for n° 13 cable gland

Ø: G 1/4 (female)

(1) Tapped entry for n° 13 cable gland

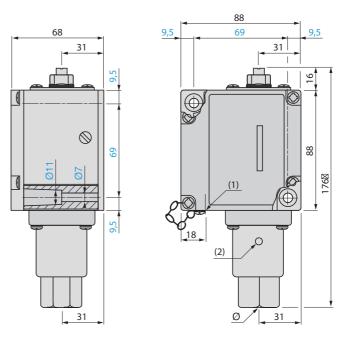
Ø: G 1/4 (female)

Characteristics pages 79 to 83

References pages 80 to 83

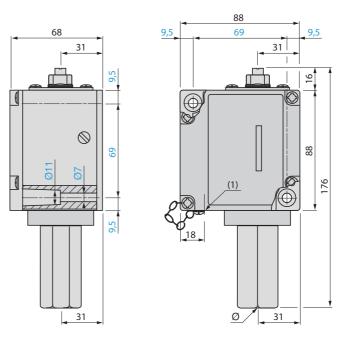
For control circuits, OsiSense ADW

ADW3, 4, 7, 23, 24, 27



- (1) Tapped entry for n° 13 cable gland
- (2) Drainage hole, tapped G 1/8 (female)
- Ø: G 3/8 (female)

ADW5, 6, 7S1, 25, 26, 27S1



- (1) Tapped entry for n° 13 cable gland
- Ø: G 3/8 (female)

OsiSense XM

For control circuits, OsiSense XMX and XMA

Presentation

Pressure switches OsiSense XMX and XMA are switches for control circuits, with an adjustable differential.

They are used to control the pressure of water and air, up to 25 bar.

Equipment fitted to the various models

Location of setting screw

Pressure switches OsiSense XMX have an internal setting screw that is only accessible after removing the cover.

Pressure switches OsiSense XMA have an external setting screw that is accessible without removing the cover.

Case

Pressure switches OsiSense XMX have a black opaque case.

Pressure switches OsiSense XMA can have a transparent case or a black opaque case.

Setting

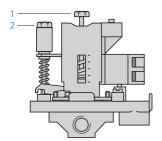
When setting pressure switches XMX or XMA, adjust the switching point on rising pressure (PH) first and then the switching point on falling pressure (PB).

Switching point on rising pressure

The switching point on rising pressure (PH) is set by adjusting screw-nut 1.

Switching point on falling pressure

The switching point on falling pressure (PB) is set by adjusting screw-nut 2.



For control circuits, OsiSense XMX and XMA

Environment characteristics		
Conformity to standards		CE, IEC/EN 60947-5-1
Product certifications		UL, CSA, ccc
Protective treatment		"TC"
Ambient air temperature	°C	For operation: -25+70 for 6 and 25 bar versions -25+55 for 12 bar version
		For storage: -40+70
Fluids controlled	°C	Air, fresh water, sea water: 0+70°C for 6 and 25 bar versions 0+55°C for 12 bar version
Materials		Case: polycarbonate impregnated with Lexan 500R fibreglass (black opaque cover or polycarbonate impregnated with Lexan 123 fibreglass (transparent cover) Component materials in contact with fluid: chromated zinc alloy (fluid entry), canvas covered nitrile (diaphragm)
Operating position		All positions
Electric shock protection		Class I conforming to IEC 536
Degree of protection		IP 54 conforming to IEC/EN 60529
Operating rate	Op. cycles/h	600
Repeat accuracy		< 3.5%
Fluid connection		G 1/4 or 4 x G 1/4 (BSP female) conforming to NF E 03-005, ISO 228
Electrical connection		Terminals 2 tapped entries for n° 13 (DIN Pg 13.5) cable gland
Contact block characteristics	·	
Rated operational characteristics		~ AC-15, B300 (Ue = 240 V, Ie = 1.5 A; Ue = 120 V, Ie = 3 A) DC-13, R300 (Ue = 250 V, Ie = 0.1 A)
Rated insulation voltage	V	Ui = 500 conforming to IEC/EN 60947-1
Rated impulse withstand voltage	kV	U imp = 6 conforming to IEC/EN 60947-1
Type of contacts		1 CO single-pole contact, snap action
Terminal referencing		Conforming to CENELEC EN 50013
Short-circuit protection		10 A cartridge fuse type gG (gI)
Connection		Screw clamp terminals Minimum clamping capacity: 1 x 1 mm ² Maximum clamping capacity: 2 x 2.5 mm ²
Electrical durability		AC supply 50/60Hz, Ith = 10 A Inductive circuit, utilisation category AC-15, 3 A/240 V: 1 million operating cycles





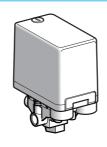
Electromechanical pressure switchesOsiSense XMX for control circuits

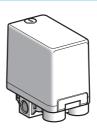
Sizes 6 to 25 bar (87 to 362.5 psi)

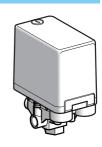
Adjustable differential, for regulation between 2 thresholds Switches with 1 CO single-pole contact

Pressure switches OsiSense XMX (internal setting screw)









Adjustable range of s (Rising pressure)	witching point (PH)	16 bar (14.587 psi)	1.312 bar (18.85174 psi)	3.525 bar (50.75362.5 psi)	16 bar (14.587 psi)	1.312 bar (18.85174 psi)	3.525 bar (50.75362.5 psi)	
Fluid connection		G 1/4 (female)			4 x G 1/4 (female	4 x G 1/4 (female)		
References								
Switches with bla	ck opaque cover							
Fluids controlled	Air, fresh water, sea water (1)	XMXA06L2135	XMXA12L2135	XMXA25L2135	XMXA06L2435	XMXA12L2435	XMXA25L2435	
Weight (kg)		0.430		0.650	0.430		0.650	
Complementa	ry characteristic	s not shown	under gener	al characteris	stics (page 87)			
Possible differential (subtract from PH	Min. at low setting	0.8 bar (11.6 psi)	1 bar (14.5 psi)	3.4 bar (49.3 psi)	0.8 bar (11.6 psi)	1 bar (14.5 psi)	3.4 bar (49.3 psi)	
to give PB)	Min. at high setting	1.2 bar (17.4 psi)	1.7 bar (24.6 psi)	4.5 bar (65.2 psi)	1.2 bar (17.4 psi)	1.7 bar (24.6 psi)	4.5 bar (65.2 psi)	
	Max. at high setting	4.2 bar (60.9 psi)	8.4 bar (121.8 psi)	20 bar (290 psi)	4.2 bar (60.9 psi)	8.4 bar (121.8 psi)	20 bar (290 psi)	
Maximum permissible pressure	Per cycle	7.5 bar (108.7 psi)	15 bar (217.5 psi)	31.25 bar (453.1 psi)	7.5 bar (108.7 psi)	15 bar (217.5 psi)	31.25 bar (453.1 psi)	
	Accidental	13.5 bar (195.7 psi)	27 bar (391.5 psi)	56.25 bar (815.6 psi)	13.5 bar (195.7 psi)	27 bar (391.5 psi)	56.25 bar (815.6 psi)	
Destruction pressure	•	30 bar (435 psi)		100 bar (1450 psi)	30 bar (435 psi)		100 bar (1450 psi)	
Mechanical life		1 x 10 ⁶ operating cycles						
Cable entry		2 entries tapped for n° 13 cable gland, conforming to NF C 68-300 (DIN Pg 13.5)						
Pressure switch type	1	Diaphragm						

⁽¹⁾ Component materials of units in contact with the fluid, see page 87.

XMXA25

Operating curves



bar 6 _T

Rising pressure

XMXA12

bar 12

Rising pressure 6

2 1.3

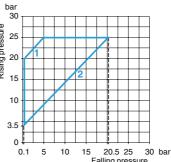
0

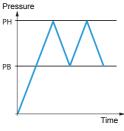
6 bar

0.3

10 10.3 bar

8





--- Adjustable value

Maximum differential

1 1.8 2

- Minimum differential
- 1 Maximum differential

2 3.64

- 2 Minimum differential
- Maximum differential
- Minimum differential

Connections



Other versions

Pressure switches with alternative tapped cable entries: ISO, NPT, etc. Please consult our

Accessories: page 90

Dimensions: page 91

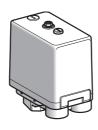


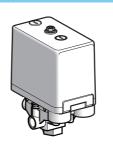
Electromechanical pressure switchesOsiSense XMA for control circuits

Sizes 6 to 25 bar (87 to 362.5 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 1 CO single-pole contact

Pressure switches OsiSense XMA (external setting screw)





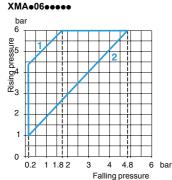


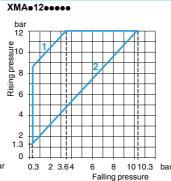


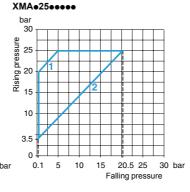
Adjustable range of switching point (PH) (Rising pressure)		16 bar (14.587 psi)	1.312 bar (18.85174 psi)	3.525 bar (50.75362.5 psi)	16 bar (14.587 psi)	1.312 bar (18.85174 psi)	3.525 bar (50.75362.5 psi)	
Fluid connection		G 1/4 (female)			4 x G 1/4 (female)		
References								
Switches with blac	k opaque cover							
Fluids controlled	Air, fresh water, sea water (1)	XMAH06L2135	XMAH12L2135	XMAH25L2135	XMAH06L2435	XMAH12L2435	XMAH25L2435	
Switches with trans	sparent cover							
Fluids controlled	Air, fresh water, sea water (1)	XMAV06L2135	XMAV12L2135	XMAV25L2135	XMAV06L2435	XMAV12L2435	XMAV25L2435	
Weight (kg)		0.430		0.650	0.430		0.650	
Complementary	y characteristic	s not shown เ	under genera	al characteris	stics (page 87)			
Possible differential (subtract from PH	Min. at low setting	0.8 bar (11.6 psi)	1 bar (14.5 psi)	3.4 bar (49.3 psi)	0.8 bar (11.6 psi)	1 bar (14.5 psi)	3.4 bar (49.3 psi)	
to give PB)	Min. at high setting	1.2 bar (17.4 psi)	1.7 bar (24.6 psi)	4.5 bar (65.2 psi)	1.2 bar (17.4 psi)	1.7 bar (24.6 psi)	4.5 bar (65.2 psi)	
	Max. at high setting	4.2 bar (60.9 psi)	8.4 bar (121.8 psi)	20 bar (290 psi)	4.2 bar (60.9 psi)	8.4 bar (121.8 psi)	20 bar (290 psi)	
Maximum permissible pressure	Per cycle	7.5 bar (108.7 psi)	15 bar (217.5 psi)	31.25 bar (453.1 psi)	7.5 bar (108.7 psi)	15 bar (217.5 psi)	31.25 bar (453.1 psi)	
	Accidental	13.5 bar (195.7 psi)	27 bar (391.5 psi)	56.25 bar (815.6 psi)	13.5 bar (195.7 psi)	27 bar (391.5 psi)	56.25 bar (815.6 psi)	
Destruction pressure		30 bar (435 psi) 100 bar		100 bar (1450 psi)	30 bar (435 psi)		100 bar (1450 psi)	
Mechanical life		1 x 10 ⁶ operating cycles						
Cable entry		2 entries tapped for n° 13 cable gland, conforming to NF C 68-300 (DIN Pg 13.5)						
Pressure switch type Diaphragm								

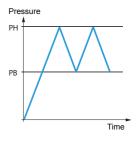
⁽¹⁾ Component materials of units in contact with the fluid, see page 87.

Operating curves









- Adjustable value

- 1 Maximum differential
- Minimum differential
- 1 Maximum differential
- Minimum differential
- Maximum differential
- Minimum differential

Connections



Other versions

Pressure switches with alternative tapped cable entries: ISO, NPT, etc. Please consult our Customer Care Centre.

Electromechanical pressure switchesOsiSense XMX and XMA for control circuits

Accessories and replacement parts











Description		Reference	Weight kg
Fixing bracket		XMAZL001	0.035
	ent knob, Ø 36 mm nt screws to facilitate setting	XMLZL003	0.010
13P cable gland	With anti pull-out ring (for cable Ø 69 mm)	DE9PM1201	0.005
	Without anti pull-out ring (for cable Ø 69 mm)	DE9PM1202	0.005
	With anti pull-out ring (for cable Ø 912.5 mm)	DE9PM1203	0.005
	Without anti pull-out ring (for cable Ø 912.5 mm)	DE9PM1204	0.005
Description	For pressure switch	Reference	Weight kg
Diaphragms	Size 6 bar	XMPZ31	0.005

XMPZ33

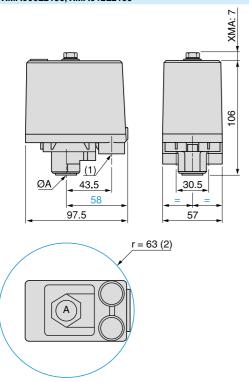
0.005

Size 25 bar

OsiSense XM

For control circuits, OsiSense XMX and XMA Accessories and replacement parts

XMXA06L2135, XMXA12L2135 XMA•06L2135, XMA•12L2135

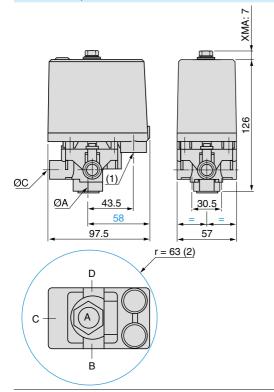


 $\overline{\text{ØA} = \text{G } 1/4 \text{ (female)}}$

(1) 2 tapped entries for n° 13 cable gland

(2) Minimum clearance zone for screwing-on pressure switch at point A

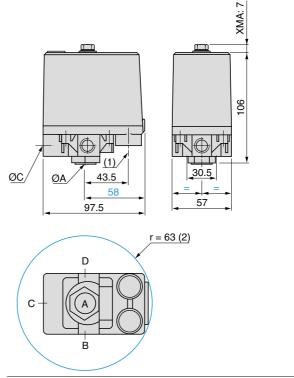
XMXA25L2135, XMXA25L2435 XMA•25L2135, XMA•25L2435



XM••25L2135: ØA only = G 1/4 (female)

XM••25L2435: ØA = ØB = ØC = ØD = G 1/4 (female)

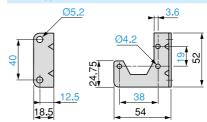
XMXA06L2435, XMXA12L2435 XMAe06L2435, XMAe12L2435



(1) 2 tapped entries for n° 13 cable gland

(2) Minimum clearance zone for screwing-on pressure switch at point A

Fixing bracket XMAZL001



(1) 2 tapped entries for n° 13 cable gland

(2) Minimum clearance zone for screwing-on pressure switch at point A



References: page 88



OsiSense XM

For power circuits, OsiSense FTG, FSG and FYG

Presentation

Pressure switches OsiSense FTG, FSG and FYG are switches for power circuits. They are used to control the pressure of water, up to 10.5 bar.

2 types of product are available:

- pressure switches OsiSense FTG with fixed differential, for detection of a single threshold.
- pressure switches OsiSense FSG and FYG with an adjustable differential, for regulation between 2 thresholds.

For specific needs, these 2 types of product can be supplied in IP 65 versions, thus ensuring a higher degree of protection. They feature 2 cable entries, fitted with cable gland, and are referenced FoGoNE.

Setting

Pressure switches with fixed differential (FTG)

Only the switching point on rising pressure is adjustable.

Switching point on rising pressure

The switching point on rising pressure (PH) is set by adjusting screw-nut 1.

Switching point on falling pressure

The switching point on falling pressure (PB) is not adjustable.

The difference between the tripping and resetting points of the contact is the natural differential of the switch (contact differential, friction, etc.).

Pressure switches with adjustable differential (FSG and FYG)

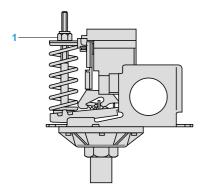
When setting the pressure switch, adjust the switching point on rising pressure (PH) first and then the switching point on falling pressure (PB).

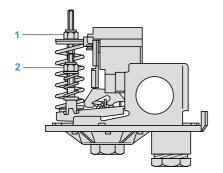
Switching point on rising pressure

The switching point on rising pressure (PH) is set by adjusting screw-nut 1.

Switching point on falling pressure

The switching point on falling pressure (PB) is set by adjusting screw-nut 2.





For power circuits, OsiSense FTG, FSG and FYG

Environment characteristi	00				less.		
Pressure switch type			FTG• FTG•NE		FSGe and FYGe FSGeNE and FYG	S ● NE	
Conformity to standards			C€, IEC/EN 60730				
Protective treatment			Standard version:	"TC"			
Ambient air temperature		°C	For operation: 0+	+ 45. For storage: - 30.	+ 80		
luids controlled			Fresh water, sea w	vater (0+ 70°C)			
Materials .				, resistant to mechanic ials in contact with fluid		ed steel, nitrile	
Operating position			All positions				
lectric shock protection			Class I conforming	to IEC 536			
Degree of protection conforming to IEC/EN 60529	FTGe, FSGe and FYGe		IP 20				
3	FTGeNE, FSGeNE and FYGeNE		IP 65				
Operating rate			600				
Repeat accuracy			< 2%				
Fluid connection	id connection F●G 2, FYG●2 G 1/4 (BSP female) conforming to NF E 03-005, I			03-005, ISO 228			
	F●G 9		R 1/4 (BSP male) o	conforming to NF E 03	-004, ISO 7		
Electrical connection	FTG●, FSG● and FYG●		Terminals. 2 cable entries, with grommet				
	FTG•NE, FSG•NE and FYG•NE		Terminals. 2 entries incorporating 13P cable gland (DIN Pg 13.5)				
Contact block characteris	tics						
Rated operational characteristics			le = 10 A, Ue = \sim 2	250 V conforming to El	N 60730-1		
Power ratings of controlled motors	Voltage		\sim 2-pole 1-phase	∼ 2-pole 3-phase	∼ 2-pole 1-phase	∼ 2-pole 3-phase	
	110 V		0.75 kW (1 HP)	1.1 kW (1.5 HP)	0.75 kW (1 HP)	1.1 kW (1.5 HP)	
	230 V		1.1 kW (1.5 HP)	1.5 kW (2 HP)	1.5 kW (2 HP)	2.2 kW (3 HP)	
	400 V		1.5 kW (2 HP)	1.5 kW (2 HP)	1.5 kW (2 HP)	2.2 kW (3 HP)	
Rated insulation voltage conforming to IEC/EN 60947-1		V	Ui = 500				
Rated impulse withstand voltage conforming to IEC/EN 60947-1			U imp = 6				
ype of contacts			1 2-pole 2 NC (4 terminal) contact, snap action				
Short-circuit protection			20 A cartridge fuse type gG				
Connection			Screw clamp terminals. Minimum clamping capacity: 1 x 1 mm², max: 2 x 2 mm²				
Electrical durability at an operating rate of 600 operating cycles/hour		Op.	40 000 100 000				

References: page 94

Dimensions: page 97



OsiSense XM

For power circuits, OsiSense FTG Size 4.6 bar (66.7 psi), fixed differential, for detection of a single threshold. Switches with 2-pole 2 NC contact. Degree of protection IP 20 or IP 65

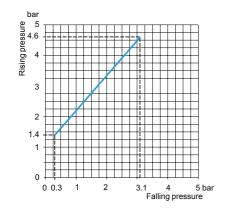
Fluid connection	G 1/4 (female)	R 1/4 (male)	G 1/4 (female)	R 1/4 (male)

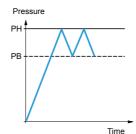
Adjustable range of switching (Rising pressure)	point (PH) 1.44.6 bar (20.366.7 psi)				
Degree of protection conforming to IEC/EN 60529		IP 20		IP 65	
References					
Fluids controlled	Fresh water, sea water, from 0°C to + 70°C (1)	FTG2	FTG9	FTG2NE	FTG9NE
Weight (kg)		0.340			

rroight (kg)		0.010				
Complementary cha	aracteristics not show	wn under general character	istics (page 93)			
Natural differential (subtract from PH to give PB)	At low setting	1.1 bar (15.95 psi)	1.1 bar (15.95 psi)			
	At middle setting	1.3 bar (18.85 psi)	1.3 bar (18.85 psi)			
	At high setting	1.5 bar (21.75 psi)	1.5 bar (21.75 psi)			
Maximum permissible pressure	Per cycle	5.75 bar (83.38 psi)	5.75 bar (83.38 psi)			
	Accidental	8 bar (116 psi)	8 bar (116 psi)			
Destruction pressure		20 bar (290 psi)	20 bar (290 psi)			
Mechanical life		4 x 10⁵ operating cycles	4 x 10 ⁵ operating cycles			
Cable entry		2 cable entries, with grommet	2 entries with 13P cable gland (DIN Pg 13.5)			
Clamping capacity		-	9 to 13 mm			
Pressure switch type		Diaphragm				
Clamping capacity		-	(DIN Pg 13.5)			

⁽¹⁾ Component materials of units in contact with the fluid, see page 93.

Operating curves Connections







- --- Adjustable value
- ---- Non adjustable value

References, characteristics

Electromechanical pressure switches

OsiSense XM

For power circuits, OsiSense FSG

Size 4.6 bar (66.7 psi), adjustable differential, for regulation between 2 thresholds. Switches with 2-pole 2 NC contact. Degree protection IP 20 or IP 65

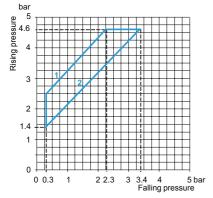
Fluid connection	G 1/4 (female)	R 1/4 (male)	G 1/4 (female)	R 1/4 (male)
Adjustable range of switching point (PH)	1.44.6 bar (20.36	6 7 nsi)		

Adjustable range of switch (Rising pressure)	hing point (PH)	1.44.6 bar (20.366.7 psi)			
Degree of protection conforming to IEC/EN 6052	29	IP 20		IP 65	
References					
Fluids controlled	Fresh water, sea water, from 0°C to + 70°C (1)	FSG2	FSG9	FSG2NE (2)	FSG9NE
Weight (kg)		0.340	*	•	•

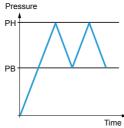
Weight (kg)		0.340				
Complementary cha	aracteristics not shown	under general characteristics (page 93)			
Possible differential (subtract from PH to give PB)	Max. at low setting	2.1 bar (30.45 psi)				
	Max. at middle setting	2.2 bar (31.9 psi)				
	Max. at high setting	2.3 bar (33.35 psi)				
	Min. at low setting	1 bar (14.5 psi)				
	Min. at middle setting	1.1 bar (15.95 psi)				
	Min. at high setting	1.2 bar (17.4 psi)				
Maximum permissible pressure	Per cycle	5.75 bar (83.38 psi)				
	Accidental	8 bar (116 psi)				
Destruction pressure		20 bar (290 psi)				
Mechanical life		1 x 10 ⁶ operating cycles				
Cable entry		2 cable entries, with grommet	2 entries with 13P cable gland (DIN Pg 13.5)			
Clamping capacity		-	9 to 13 mm			
Pressure switch type		Diaphragm				

⁽¹⁾ Component materials of units in contact with the fluid, see page 93.

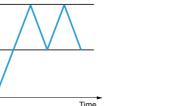
Operating curves Connections



- 1 Maximum differential
- 2 Minimum differential









⁽²⁾ Variant: for a G 3/8 female fluid entry that pivots throughout 360°, select the FSG2NEG.

OsiSense XM

For power circuits, OsiSense FYG Sizes 7 and 10.5 bar (101.5 and 152.3 psi), adjustable differential, for regulation between 2 thresholds. Switches with 2-pole 2 NC contact. Degree of protection IP 20 or IP 65

Fluid connection		G 1/4 (female)				
Adjustable range of switchin (Rising pressure)	g point (PH)	2.87 bar (40.6101	.5 psi)	5.610.5 bar (81.2	152.3 psi)	
Degree of protection conforming to EN/IEC 60529		IP 20	IP 65	IP 20	IP 65	
References						
Fluids controlled	Fresh water, sea water, from 0°C to + 70°C (1)	FYG22 (2)	FYG22NE	FYG32 (3)	FYG32NE	
Weight (kg)		0.340				
Complementary cha	aracteristics not show	n under general o	haracteristics (page 93)		
Possible differential (subtract from PH to give PB)	Max. at low setting	2.3 bar (33.35 psi)		3 bar (43.5 psi)		
	Max. at middle setting	2.5 bar (36.25 psi)		3.2 bar (46.4 psi)		
	Max. at high setting	2.7 bar (39.15 psi)		3.4 bar (49.3 psi)		
	Min. at low setting	1.2 bar (17.4 psi)		1.9 bar (27.55 psi)		
	Min. at middle setting	1.4 bar (20.3 psi)		2.1 bar (30.45 psi)		
	Min. at high setting	1.6 bar (23.2 psi)		2.3 bar (33.35 psi)		
Maximum permissible pressure	Per cycle	8.75 bar (126.9 psi)		13 bar (188.5 psi)		
	Accidental	15 bar (217.5 psi)		15 bar (217.5 psi)		
Destruction pressure		20 bar (290 psi)		20 bar (290 psi)		
Mechanical life		1 x 10 ⁶ operating cycles				
Cable entry		2 cable entries, with grommet				

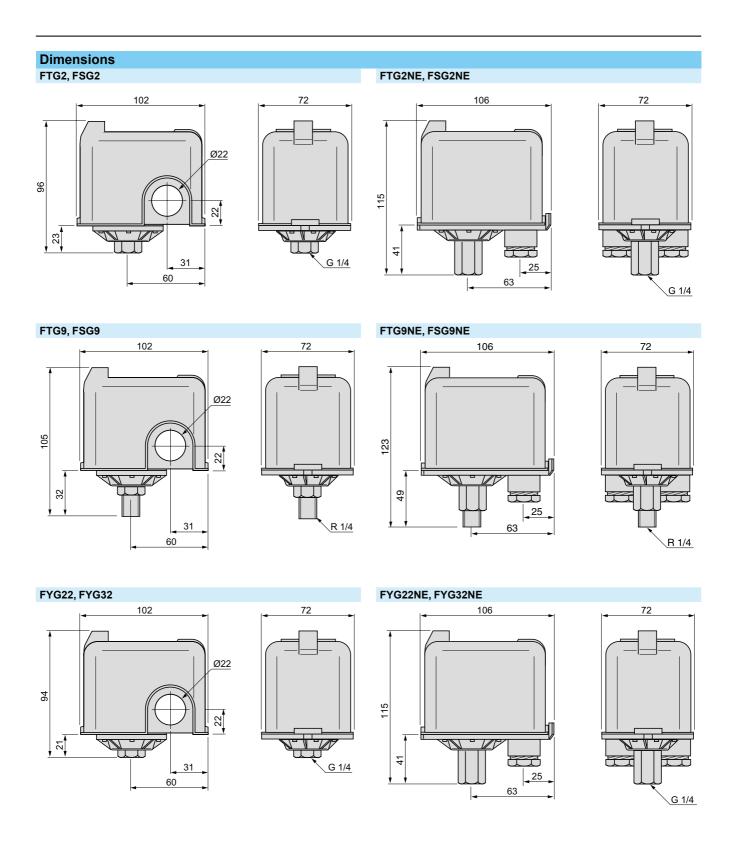
- (1) Component materials of units in contact with the fluid, see page 93.
- (2) Variant: for a 2.8 to 7 bar, IP 20, pressure switch with R 1/4 (male) fluid entry, select the **FYG29**.
- (3) Variant: for a 5.6 to 10.5 bar, IP 20, pressure switch with R 1/4 (male) fluid entry, select the FYG39.

Operating curves Connections FYG22 FYG32 Rising pressure Rising pressure 10 9 8 6 7.1 8.29 10 Falling pressure Falling pressure 1 Maximum differential 1 Maximum differential - Adjustable value 2 Minimum differential 2 Minimum differential

Diaphragm

Pressure switch type

For power circuits, OsiSense FTG, FSG and FYG



OsiSense XM

For power circuits, OsiSense XMP

Presentation

Pressure switches OsiSense XMP are switches for power circuits (direct switching), with an adjustable differential.

They are used to control the pressure of water and air, up to 25 bar.

Equipment fitted to the various models

Case

Pressure switches OsiSense XMP, depending on the model, include:

- 3 types of case:
- □ bare case,
- □ case with On/Off knob (black): used as a switch for starting and stopping the installation.
- case with reset knob (yellow): necessary when the safety requirements of the system include tripping in the event of overpressure. Resetting is not automatic on return to normal pressure, and it can only be achieved by manually turning the "Reset" knob.
- 2 degrees of protection:
- □ IP 54.
- □ IP 65.

Decompression valve

Depending on the model, 2 types of decompression valve can be fitted to pressure switches OsiSense XMP:

- Straight, instant connection, decompression valve (connection by Ø 6 mm plastic tube).
- \blacksquare Straight, olive connection, decompression valve (connection by Ø 6 mm plastic or metal tube).

Setting

When setting XMP pressure switches, adjust the switching point on rising pressure (PH) first and then the switching point on falling pressure (PB).

Switching point on rising pressure

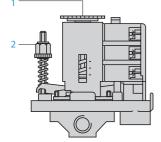
The switching point on rising pressure (PH) is set by adjusting the screw-nut or knurled knob 1.

Tighten either the nut or knurled knob 1 to increase the high point switching value.

Switching point on falling pressure

The switching point on falling pressure is set by adjusting screw-nut 2.

Tighten nut 2 to reduce the low point switching value (increase in differential).





For power circuits, OsiSense XMP

Conformity to standards		C€, IEC/EN 60947-4	1-1			
•		,				
Ambient air temperature	°C		For operation: - 25+ 70 For storage: - 40+ 70			
Fluids controlled		Air, fresh water, sea	water (0+ 70°C)			
Materials			pregnated with fibreglass als in contact with fluid: chromate iile (diaphragm)	ed zinc alloy (fluid entry),		
Operating position		All positions				
Vibration resistance		3 gn (10500 Hz) (conforming to IEC 60068-2-6			
Shock resistance		50 gn, conforming t	o IEC 60068-2-27			
Electric shock protection		Class I conforming to IEC 60536				
Degree of protection		IP 54 conforming to IEC/EN 60529 or IP 65 for universal model				
Operating rate	Op. cycles/h	≤600				
Repeat accuracy		<3.5%				
Fluid connection		G 1/4, 4 x G 1/4 or G 3/8 (BSP female) conforming to NF E 03-005, ISO 228				
Electrical connection		2 tapped entries for	n° 13 (DIN Pg 13.5) cable gland	i		
Contact block characteristics						
Rated insulation voltage	V	Ui = 500 conforming	g to IEC/EN 60947-1			
Rated impulse withstand voltage	V	U imp = 6 kV confor	ming to IEC/EN 60947-1			
Type of contacts		One 2-pole 2 NC or	3-pole 3 NC contact, snap action	on		
Resistance across terminals	mΩ	≤ 25 conforming to	NF C 93-050 method A or IEC 2	55-7 category 3		
Ferminal referencing		Conforming to CEN	ELEC EN 50013			
Short-circuit protection		Cartridge fuse type	Am			
Connection		Screw clamp termin	nals. Minimum clamping capacit	y: 2 x 4 mm²		
Electrical durability		Power	Number of operating of	cycles		
Operating rate: 600 operating cycles/hour Load factor: 0.4		kW	\sim 400 V, 3-phase	\sim 230 V, 3-phase		
2000 100001. 0.7		1.5	1 000 000	600 000		
		2.2	700 000	-		
		3	500 000	_		



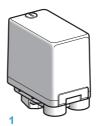


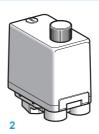
OsiSense XMP. IP 54

Size 6 bar (87 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 2-pole 2 NC or 3-pole 3 NC contact

Fluid connection G 1/4 (female)



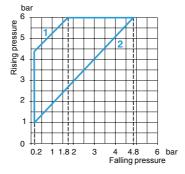


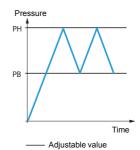
Adjustable range of switching point (PH) (Rising pressure)	16 bar (14.587 psi)	
Type of contact	2-pole 2 NC	3-pole 3 NC
References (1)		
Switches without decompression valve		
Bare case 1	XMPA06B2131	XMPA06C2131
Case with reset knob 2	XMPB06B2131	-
Case with On/Off knob 2	XMPC06B2131	XMPC06C2131
Weight (kg)	0.430	
Switches with straight decompression valve	e, instant connection	
Bare case 1	XMPD06B2131	XMPD06C2131
Case with On/Off knob 2	XMPE06B2131	XMPE06C2131
Weight (kg)	0.450	·

Complementary characteristics not shown under general characteristics (page 99)		
Possible differential	Min. at low setting	0.8 bar (11.6 psi)
(subtract from PH to give PB)	Min. at high setting	1.2 bar (17.4 psi)
	Max. at high setting	4.2 bar (60.9 psi)
Destruction pressure		30 bar (435 psi)
Mechanical life		1 million operating cycles
Cable entry		2 entries tapped for n° 13 cable gland, conforming to NF C 68-300 (DIN Pg 13.5)
Pressure switch type		Diaphragm

⁽¹⁾ References for individually packaged switches. Also available packaged in lots of 10. To order, add the letter C to the reference selected from above. Example: reference for lot of 10 pressure switches XMPA06B2131 in one package becomes XMPA06B2131C.

Operating curves



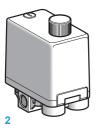


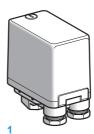
- 1 Maximum differential
- 2 Minimum differential

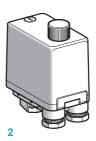


4 x G 1/4 (female)

G 3/8 (female)







1	6	har	(14.587)	nsi)

2-pole 2 NC	3-pole 3 NC	2-pole 2 NC	3-pole 3 NC
References (1)			
Switches without	decompression valve		
_	•	XMPA06B2242	XMPA06C2242
_		XMPB06B2242	-
_		XMPC06B2242	XMPC06C2242
-		0.430	
Switches with stra	ight decompression valve, i	nstant connection	
_		XMPD06B2242	XMPD06C2242
XMPE06B2431	XMPE06C2431	XMPE06B2242	XMPE06C2242

0.450

Complementary characteristics not shown under general characteristics (page 99)

0.8 bar (11.6 psi)

1.2 bar (17.4 psi)

4.2 bar (60.9 psi)

30 bar (435 psi)

1 million operating cycles

2 entries tapped for n° 13 cable gland, conforming to NF C 68-300 (DIN Pg 13.5) 2 entries incorpo Clamping capaci

2 entries incorporating n° 13 plastic cable gland (DIN Pg 13.5) Clamping capacity 9 to 13 mm

Diaphragm

Other versions

Pressure switches not listed above, comprising the equipment proposed for the choice of reference. Please consult our Customer Care Centre.

Terminal connections

XMP●●●B●●●	XMP•••C•••
~ ~ - ~ - ~	



101



⁽¹⁾ References for individually packaged switches. Also available packaged in lots of 10.

To order, add the letter C to the reference selected from above. Example: reference for lot of 10 pressure switches XMPA06B2242 in one package becomes XMPA06B2242C.

Adjustable range of switching point (PH)

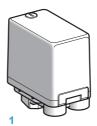
Electromechanical pressure switches

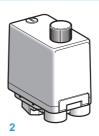
OsiSense XMP, IP 54

Size 12 bar (174 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 2-pole 2 NC or 3-pole 3 NC contact

Fluid connection	G 1/4 (female)
------------------	----------------





(Rising pressure)		
Type of contact	2-pole 2 NC	3-pole 3 NC
References (1)		
Switches without decompression valve	9	
Bare case 1	XMPA12B2131	XMPA12C2131
Case with reset knob 2	XMPB12B2131	-
Case with On/Off knob 2	XMPC12B2131	XMPC12C2131
Weight (kg)	0.430	•
Switches with straight decompression	valve, instant connection	
Bare case 1	XMPD12B2131	XMPD12C2131
Case with On/Off knob 2	XMPE12B2131	XMPE12C2131
Weight (kg)	0.450	•
Switches with straight decompression	valve, olive connection	
Case with On/Off knob 2	XMPR12B2131	XMPR12C2131
Weight (kg)	0.450	

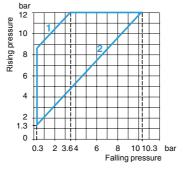
1.3...12 bar (18.85...174 psi)

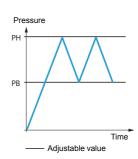
Complementary cha	aracteristics not shown	under general characteristics (page 99)
Possible differential	Min. at low setting	1 bar (14.5 psi)
(subtract from PH to give PB)	Min. at high setting	1.7 bar (24.6 psi)
	Max. at high setting	8.4 bar (121.8 psi)
Destruction pressure		30 bar (435 psi)
Mechanical life		1 million operating cycles
Cable entry		2 entries tapped for n° 13 cable gland, conforming to NF C 68-300 (DIN Pg 13.5)
Pressure switch type		Diaphragm

⁽¹⁾ References for individually packaged switches. Also available packaged in lots of 10.

To order, add the letter C to the reference selected from above. Example: reference for lot of 10 pressure switches XMPA12B2131 in one package becomes XMPA12B2131C.

Operating curves





- 1 Maximum differential
- 2 Minimum differential

Accessories: page 108

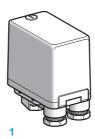
Dimensions: page 109

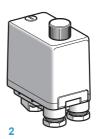
page 109



4 x G 1/4 (female)

G 3/8 (female)





1.3...12 bar (18.85...174 psi)

KMPE12B2431	XMPE12C2431	XMPE12B2242	XMPE12C2242
•		XMPD12B2242	XMPD12C2242
Switches with strai	ght decompression valve, in	stant connection	
-		0.430	
•		XMPC12B2242	XMPC12C2242
-		XMPB12B2242	-
-		XMPA12B2242	XMPA12C2242
Switches without d	lecompression valve		
References (1)			
e-pole 2 NO	3-pole 3 NC	2-pole 2 NO	3-pole 3 NO
2-pole 2 NC	3-pole 3 NC	2-pole 2 NC	3-pole 3 NC

Switches with straight decompression valve, olive connection

_

Complementary characteristics not show	n under general characteristics (page 99)
1 bar (14.5 psi)	
1.7 bar (24.6 psi)	
8.4 bar (121.8 psi)	
30 bar (435 psi)	
1 million operating cycles	
2 entries tapped for n° 13 cable gland, conforming to NF C 68-300 (DIN Pg 13.5)	2 entries incorporating n° 13 plastic cable gland (DIN Pg 13.5) Clamping capacity 9 to 13 mm
Diaphragm	
Other versions	Pressure switches not listed above, comprising the equipment proposed for the choice of reference. Please consult our Customer Care Centre

⁽¹⁾ References for individually packaged switches. Also available packaged in lots of 10. To order, add the letter C to the reference selected from above. Example: reference for lot of 10 pressure switches XMPA12B2242 in one package becomes XMPA12B2242C.

Terminal connections



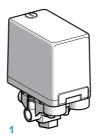


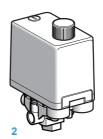
OsiSense XMP. IP 54

Size 25 bar (362.5 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 2-pole 2 NC or 3-pole 3 NC contact

Fluid connection	G 1/4 (female)





Adjustable range of switching point (PH) (Rising pressure)	3.525 bar (50.75362.5 psi)
Type of contact	2-pole 2 NC

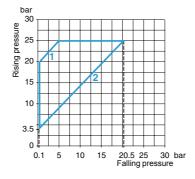
References (1)	
Switches without decompression valve	
Bare case 1	XMPA25B2131
Case with reset knob 2	XMPB25B2131
Case with On/Off knob 2	XMPC25B2131
Weight (kg)	0.650
Switches with straight decompression valve, olive co	nnection
Case with On/Off knob 2	XMPR25B2131
Weight (kg)	0.670

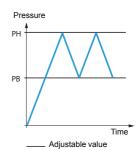
Complementary cha	aracteristics not shown	under general characteristics (page 99)		
		3.4 bar (49.3 psi)		
(subtract from PH to give PB)	Min. at high setting	4.5 bar (65.2 psi)		
	Max. at high setting	20 bar (290 psi)		
Destruction pressure		100 bar (1450 psi)		
Mechanical life		1 million operating cycles		
Cable entry		2 entries tapped for n° 13 cable gland, conforming to NF C 68-300 (DIN Pg 13.5)		
Pressure switch type		Diaphragm		

⁽¹⁾ References for individually packaged switches. Also available packaged in lots of 10.

To order, add the letter C to the reference selected from above. Example: reference for lot of 10 pressure switches XMPA25B2131 in one package becomes XMPA25B2131C.

Operating curves

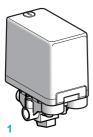


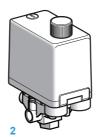


- 1 Maximum differential
- 2 Minimum differential



G 1/4 (female)





3.5...25 bar (50.75...362.5 psi)

3-pole 3 NC

References (1)

Switches without decompression valve

XMPA25C2131

_

XMPC25C2131

0.650

Switches with straight decompression valve, olive connection

XMPR25C2131

0.670

Complementary characteristics not shown under general characteristics (page 99)

3.4 bar (49.3 psi)

4.5 bar (65.2 psi)

20 bar (290 psi)

100 bar (1450 psi)

1 million operating cycles

2 entries tapped for n° 13 cable gland, conforming to NF C 68-300 (DIN Pg 13.5)

Diaphragm

Other versions

Pressure switches not listed above, comprising the equipment proposed for the choice of reference. Please consult our Customer Care Centre.

(1) References for individually packaged switches. Also available packaged in lots of 10. To order, add the letter C to the reference selected from above. Example: reference for lot of 10 pressure switches XMPA25C2131 in one package becomes XMPA25C2131C.

Terminal connections

XMP•••B••••

XMPeeeCeeee





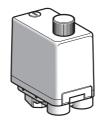


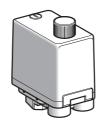
OsiSense XMP. IP 65

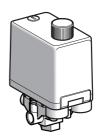
Sizes 6 to 25 bar (87 to 362.5 psi)

Adjustable differential, for regulation between 2 thresholds Switches with 2-pole 2 NC or 3-pole 3 NC contact

Fluid connection G 1/4 (female)





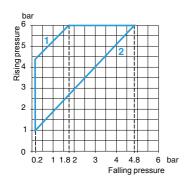


Adjustable range of s (Rising pressure)	ljustable range of switching point (PH) 16 bar (14.587 psi) 1.312 bar (18.85174 psi) ising pressure)		5174 psi)	3.525 bar (50.75362.5 psi)				
Type of contact		2-pole 2 NC	3-pole 3 NC	2-pole 2 NC	3-pole 3 NC	2-pole 2 NC	3-pole 3 NC	
References (1)								
Switches with str	aight decompression	n valve, olive co	nnection					
Case with On/Off knd	ob	XMPR06B2133	XMPR06C2133	XMPR12B2133	XMPR12C2133	XMPR25B2133	XMPR25C2133	
Weight (kg)		0.450		0.670				
Complementa	ry characteristi	cs not shown	under gener	al characteri	stics (page 99)			
Possible differential	Min. at low setting	0.8 bar (11.6 psi)		1 bar (14.5 psi)		3.4 bar (49.3 psi)		
(subtract from PH	Min. at high setting	1.2 bar (17.4 psi)		1.7 bar (24.6 psi)		4.5 bar (65.2 psi)		
to give PB) Max. at high setting		4.2 bar (60.9 psi)		8.4 bar (121.8 psi)	20 bar (290 psi)		
Destruction pressure	9	30 bar (435 psi)		100 bar (1450 psi)				
Mechanical life		1 million operating cycles						
Cable entry		2 entries tapped for n° 13 cable gland, conforming to NF C 68-300 (DIN Pg 13.5)						
Adjustment of high s	etting point (PH)	By screw-nut						
Pressure switch type	Pressure switch type Diaphragm							

(1) References for individually packaged switches. Also available packaged in lots of 10. To order, add the letter C to the reference selected from above. Example: reference for lot of 10 pressure switches XMPR06B2133 in one package becomes XMPR06B2133C.

Operating curves

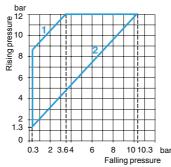
XMPR06





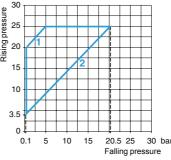
2 Minimum differential





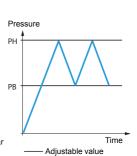
- Maximum differential
- 2 Minimum differential

XMPR25



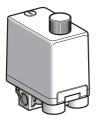


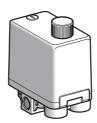
2 Minimum differential

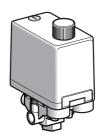




4 x G 1/4 (female)







16 bar (14.587 psi)		1.312 bar (18.85.	1.312 bar (18.85174 psi)		3.525 bar (50.75362.5 psi)	
2-pole 2 NC	3-pole 3 NC	2-pole 2 NC	3-pole 3 NC	2-pole 2 NC	3-pole 3 NC	
References (1)						
Switches with straigh	nt decompression valve, o	live connection				
XMPR06B2433	XMPR06C2433	XMPR12B2433	XMPR12C2433	XMPR25B2433	XMPR25C2433	
0.450		-		0.670		
Complementary	characteristics not sl	nown under genera	I characteristics	(page 99)		
0.8 bar (11.6 psi)		1 bar (14.5 psi)		3.4 bar (49.3 psi)		
1.2 bar (17.4 psi)		1.7 bar (24.6 psi)	1.7 bar (24.6 psi)		4.5 bar (65.2 psi)	
4.2 bar (60.9 psi)		8.4 bar (121.8 psi)	8.4 bar (121.8 psi)		20 bar (290 psi)	
30 bar (435 psi)				100 bar (1450 psi)		
1 million operating cycles						
2 entries tapped for n° 13	cable gland, conforming to NF C	68-300 (DIN Pg 13.5)				
By screw-nut						
Diaphragm						
Other versions		Pressure switches not listed above, comprising the equipment proposed for the choice of reference. Please consult our Customer Care Centre.			sed for the choice	

(1) References for individually packaged switches. Also available packaged in lots of 10. To order, add the letter C to the reference selected from above. Example: reference for lot of 10 pressure switches XMPR06B2433 in one package becomes XMPR06B2433C.

Terminal connections



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For power circuits, OsiSense XMP Accessories and replacement parts

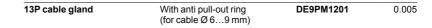


References		
Description	Reference	Weight kg
Fixing bracket	XMAZL001	0.035



Knurled adjustment knob, Ø 36 mm	XMPMDR01	0.010
fits over adjustment screws to facilitate setting		



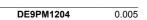




XMPZ3

Without anti pull-out ring	DE9PM1202	0.005
(for cable Ø 69 mm)		





0.005

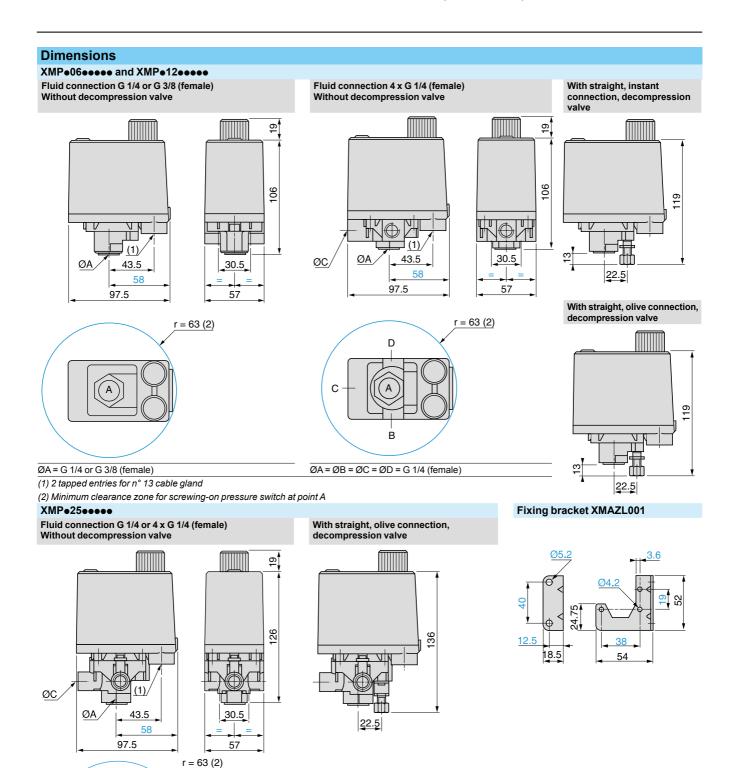


Description	For pressure switch	Sold in lots of	Unit reference	Weight kg
Diaphragms	Size 6 bar	50	XMPZ31	0.005
	Size 25 bar	50	XMPZ33	0.005

Without anti pull-out ring (for cable Ø 9...12.5 mm)

OsiSense XM

For power circuits, OsiSense XMP Accessories and replacement parts



XMP•25•21••: ØA only = G 1/4 (female)

D

 $XMP \bullet 25 \bullet 24 \bullet \bullet$: $\emptyset A = \emptyset B = \emptyset C = \emptyset D = G 1/4 (female)$

(1) 2 tapped entries for n° 13 cable gland

(2) Minimum clearance zone for screwing-on pressure switch at point A

Product reference index

ACWIM128912										
ACVEMIA120012	Α		FYG32	96	XMLA035C2C11	50	XMLB010C2S12	43	XMLBM03R2S12	22
ACWIMIT29012 80	ACW1M129012	80	FYG32NE	96		50	XMLB010P2C11	43	XMLBM03S2S12	22
ACWAM129012 60 00 MAH0BL2135 69 XMLA97002512 67 XMLBM082028512 47 XMLBM08202611 22 XMAH0BL2135 69 XMLA97002512 67 XMLBM082028512 22 XMAH12L2135 69 XMLA97002512 67 XMLBM082028512 22 XMAH12L2135 69 XMLA97002512 67 XMLBM082028512 22 XMAH12L2135 69 XMLA970E2512 67 XMLBM082028512 24 XMAH0BL2135 89 XMLA970E2512 67 XMLBM082028512 47 XMLBM082028512 22 XMAH0BU12012 67 XMAH0BL2135 89 XMLA970E2512 67 XMLBM082028512 47 XMLBM082028512 22 XMAH0BU12012 67 XMAH0BU12013 69 XMLA970E2512 67 XMLBM082028512 67 XMLBW082028512 67 XMLBW082028512 67 XMLBW082028512 67 XMLBW082028512 67 XMLBW0828513 69 XMLA970E2512 69 XMLBBU12012 67 XMAH0BL2135 89 XMLA970E2512 69 XMLBBU12012 67 XMAH0BU12012 67 XMAH0BU12012 67 XMAH0BU12012 67 XMAH0BU12012 67 XMLBW082028512 69 XMLA970E2512 69 XMLBBU12012 69 XMLBU12012 69	ACW2M129012	81	V		XMLA035P2C11	50	XMLB010P2S12	43	XMLBM05A2C11	24
ACWMM199012 89 XMAH0BL2435 89 XMLA07002512 59 XMLB00268214 47 XMLB00682812 24 ACWMM199012 87 XMAH0BL2435 89 XMLA07082615 54 XMLB002682614 47 XMLB006622614 24 ACWMM199012 87 XMAH0BL2435 89 XMLA07082615 54 XMLB00262614 47 XMLB006622614 24 ACWMM199012 87 XMAH0BL2435 89 XMLA07082615 54 XMLB00262614 47 XMLB00662812 24 ACWMM199012 87 XMAH0BL2435 89 XMLA07082615 54 XMLB00262614 47 XMLB00662812 24 ACWMM199012 87 XMAH0BL2435 89 XMLA07082615 54 XMLB00262614 47 XMLB00672614 24 ACWMM199012 87 XMAH0BL2435 89 XMLA16002611 58 XMLB00262614 57 XMLB00662614 34 XMLB0062614 54 XMLB00262614 58 XMLB00262614 59 XMLB00262614 58 XMLB00262614 58 XMLB00262614 59 XMLB00262614 58 XMLB00262614 59 XMLB002626	ACW3M129012	80		00	XMLA035P2S12	50	XMLB020A2C11	47	XMLBM05A2S12	24
ACWEM139012 89 XMAH12L2155 89 XMLA07002512 54 XML000026213 47 XML00006201 22 ACWEM139012 81 XMAH12L2155 89 XMLA07002512 54 XML000026214 47 XML00006201 22 ACWEM139012 81 XMAH28L2155 89 XMLA07002512 54 XML000026214 47 XML00006201 22 ACWEM139012 81 XMAH28L2355 89 XMLA07002512 54 XML000026214 47 XML00006201 22 ACWEM139012 81 XMAH08L2355 89 XMLA07002512 55 XML000026214 47 XML00006201 22 ACWEM139012 81 XMAH08L2355 89 XMLA07002512 58 XML000052621 47 XML00006201 22 ACWEM139012 81 XMAH08L2355 89 XMLA0002512 58 XML000052621 57 XML00002521 23 ACWEM139012 80 XMAH28L2355 89 XMLA00025212 58 XML000052621 57 XML00002521 39 XML00002521 58 XML000052621 57 XML00002521 39 XML00002521 58 XML000052621 57 XML00002521 39 XML00002521 58 XML000052621 57 XML00002521 23 ACWEM139012 80 XML2001 58 XML00002511 58 XML00002521 57 XML00002521 23 ACWEM139012 80 XML2001 58 XML00002511 58 XML00002521 57 XML00002521 23 ACWEM139012 81 XML00002521 30 XML000002521 30 XML00002521 30 XML0000252	ACW4M129012	80			XMLA070D2C11	54	XMLB020A2S12	47	XMLBM05B2C11	24
ACWEM199012 87 XMAH12L2435 89 XMLA07082C11 54 XMLB00302C11 47 XMLB008C3912 24 XMLA07082C11 25 XMLA07082C11 55 XMLD008C3912 24 XMLA07082C11 55 XMLD008C3912 24 XMLA07082C11 55 XMLD008C3912 24 XMLA07082C11 55 XMLB008C2912 24 XMLA0708C1912 57 XMLA0708C1315 59 XMLA0	ACW5M129012	80			XMLA070D2S12	54	XMLB020B2C11	47	XMLBM05B2S12	24
ACWEM199012 67 XMAH2SL2135 69 XMLA070K2912 57 XMAH2SL2135 69 XMLA070K2912 57 XMAH2SL2135 69 XMLA070K2912 57 XMAH2SL2135 69 XMLA070K2912 57 XMAH2SL2135 69 XMLA160CCC11 58 XMAH2SL2135 69 XMLA160CCC11 58 XMLB002PS212 57 XMAH2SL2135 69 XMLA160CCC11 58 XMLB002PS212 57 XMLB002PS212 5	ACW6M129012	81			XMLA070E2C11	54	XMLB020B2S12	47	XMLBM05C2C11	24
ACWBM129012 87 XMA200L2313 89 XMLA070N2111 39 XMLB00025211 47 XMLB00025312 23 XMLA070N212012 87 XMA200L2313 89 XMLA070N2112 35 XMLB00202511 47 XMLB00202512 37	ACW7M129012	81			XMLA070E2S12	54	XMLB020C2C11	47	XMLBM05C2S12	24
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