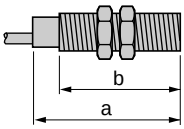
Inductive proximity sensors

Cylindrical type, M18 x 1 threaded
Metal case (brass), form A
a.c. or d.c. supply

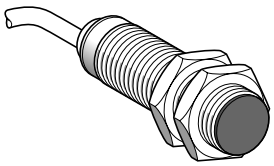
Accessories :
page 3/0

References, characteristics, dimensions, schemes

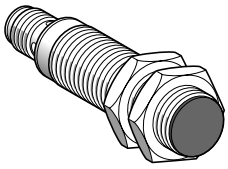
Flush mountable in metal



Lengths (mm) :
a = Overall
b = Threaded section



a = 60
b = 51.5



a = 70
b = 51.5

	AC/DC	AC/DC
Nominal sensing distance (Sn)	**5 mm**	**5 mm**

References

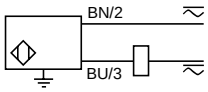
2-wire ∿ or ⎓	NO	**XS1-M18MA230**	**XS1-M18MA230K**
	NC	**XS1-M18MB230**	**XS1-M18MB230K**
2-wire ∿ or ⎓ (protected against short-circuits)	NO	**XS1-M18MA250**	**XS1-M18MA250K**
	NC	**XS1-M18MB250**	**XS1-M18MB250K**
2-wire ∿	NO	–	–
	NC	–	–
Weight (kg)		0.120	0.060

Characteristics

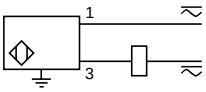
Connection		**Pre-cabled, 2 x 0.5 mm², length 2 m** (1)	**Connector (types 13 and 14)** (2)
Degree of protection		IP 68	Depending on connector (see page 3/5)
Operating zone		**0…4 mm**	
Repeat accuracy		3 % of Sr	
Differential travel		1…15 % of Sr	
Operating temperature		- 25…+ 80 °C	
Output state indication	non protected model	LED, annular	LED, 4 viewing ports at 90°
	protected model	1 red LED (output state), 1 green LED (supply & s/c indic.)	LED, 4 viewing ports at 90°
Rated supply voltage		**∿ 24…240 V (50/60 Hz) or ⎓ 24…210 V**	
Voltage limits (including ripple)		∿ or ⎓ 20…264 V	
Switching capacity		(∿) **5…300 mA or** (⎓) **5…200 mA** (3)	
Voltage drop, closed state		≤ 5.5 V	
Residual current, open state	non protected model	≤ 0.8 mA / 24 V or ≤ 1.5 mA / 120 V	
	protected model	≤ 1.5 mA	
Current consumption, no-load		–	
Maximum switching frequency		(∿) 25 Hz or (⎓) 200 Hz	
Delays		First-up : ≤ 40 or ≤ 70 ms (models with short-circuit protection) ; response : ≤ 2 ms ; recovery : ≤ 4 ms	

Wiring schemes

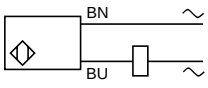
2-wire ∿ or ⎓, NO or NC output
XS1-M18M●230/250/230K/250K



XS1-M18M●2●0A



2-wire ∿, NO or NC output
XS1-M18F●260



⏚ For connector version sensors

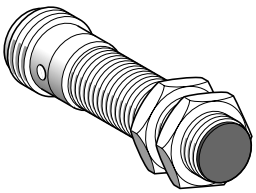
(1) Sensors pre-cabled with other cable lengths :

Length of cable	Suffix to be added to references stated above for 2 m pre-cabled sensors	Weight increase
5 m	**L1**	0.120 kg
10 m	**L2**	0.320 kg

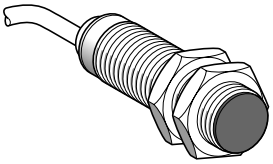
Example : sensor **XS1-M18MA230** with 5 m cable becomes **XS1-M18MA230L1**

(2 The type numbers refer to suitable female extension cables, see pages 3/5 and 3/6.

(3) For the sensors not incorporating overload or short-circuit protection, it is recommended that a 0.8 A “quick-blow” fuse be connected in series with the load. See page 3/0.



a = 75
b = 55

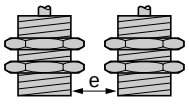
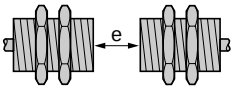
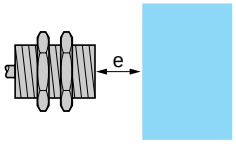
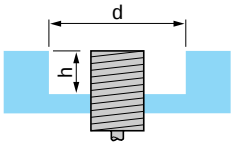


a = 60
b = 51.5

AC/DC	AC
5 mm	**5 mm**
XS1-M18MA230A	–
XS1-M18MB230A	–
XS1-M18MA250A	–
XS1-M18MB250A	–
–	**XS1-M18FA260**
–	**XS1-M18FB260**
0.065	0.120

Connector (type 18) (2)	**Pre-cabled, 2 x 0.5 mm², length 2 m** (1)
Depending on connector (see page 3/6)	IP 68
0…4 mm	
3 % of Sr	
1…15 % of Sr	
- 25…+ 80 °C	
LED, side mounted	LED, annular
1 red LED (output state), 1 green LED (supply and short-circuit indication)	–
∿ 24…240 V (50/60 Hz) or ⎓ 24…210 V	**∿ 24…240 V (50/60 Hz)**
∿ or ⎓ 20…264 V	∿ 20…264 V
(∿) 5…300 mA or (⎓) 5…200 mA (3)	**5…300 mA** (3) **(2 A to inrush)**
≤ 5.5 V	≤ 4.5 V
≤ 0.8 mA / 24 V or ≤ 1.5 mA / 120 V	≤ 1.5 mA
≤ 1.5 mA	–
–	–
(∿) 25 Hz or (⎓) 200 Hz	25 Hz
First-up : ≤ 40 or ≤ 70 ms ; response : ≤ 2 ms ; recovery : ≤ 4 ms	First-up ≤ 40 ms ; response ≤ 10 ms ; recovery ≤ 15 ms

Setting-up

Minimum mounting distances (mm)	Side by side	Face to face	Facing a metal object	Mounted in a metal support
				
XS1 flush mountable in metal	e ≥ 10	e ≥ 60	e ≥ 15	d ≥ 18, h ≥ 0
Fixing nut tightening torque :	< 35 N.m			

Other versions Inductive proximity sensors specifically designed for other ambient operating temperatures.
Please consult your local Customer support centre.