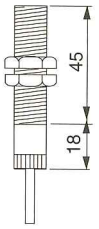
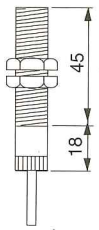
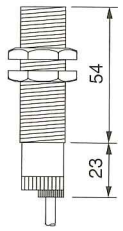
Sn: 0.2...60mm Inductive proximity sensors

Cylindrical and block type, forms A, C and D
Analogue output models

Connection : cable (pre-wired) L = 2m.
screw clamp terminals

Sensors flush-mountable in metal (screened)		Sensors not flush-mountable in metal (unscreened)		
M: Metal case **P: Plastic case**	**Dimensions in mm.**	M 12 x 1  M	M 12 x 1  P	M 18 x 1  P
References				
DC, 3 wire type	3 wire connection : 0...10 mA 2 wire connection : 4...14 mA			**XSP-H08762**
	3 wire connection : 0...16 mA 2 wire connection : 4...20 mA	**XSA-H02362**	**XSP-H04362**	**XSP-H08362**

Mechanical characteristics

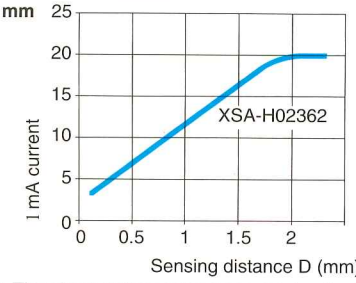
Connection mode	**3x0.2mm2**		**3x0.34mm2**
Degree of protection	IP 67		
Nominal sensing distance Sn	**0.2...2 mm**	**0.4...4 mm**	**0.8...8 mm**
Operating zone	**0.2...2 mm**	**0.4...4 mm**	**0.8...8 mm**
Ambient air temperature	- 25 to +70°C		

Electrical characteristics

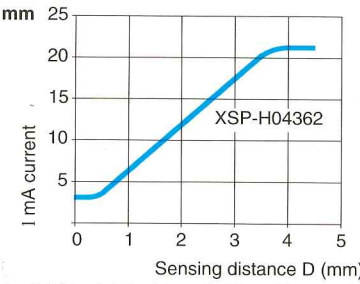
Supply voltage	**24 V DC**	**24...48 V DC**	**24 V DC**
Voltage limit (including ripple)	19...30 V DC	19...58 V DC	19...30 V DC
Current consumption, no load	4 mA		
Output current stability - 25 to + 70°C	≤ 10%		

Output curves

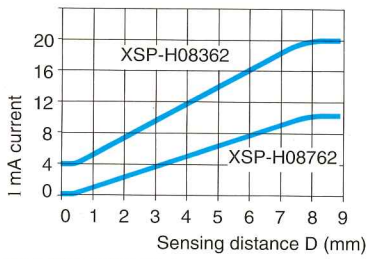
Sn:2 mm



Sn:4 mm



Sn:8 mm



Note: The above curves have been obtained using a standard A37 mild steel target object. The versions XS•-•••3•• are 2 wire connected and versions XS•-•••7••• are 3 wire connected.

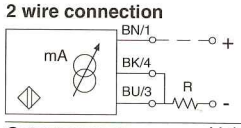
Mounting precautions

Minimum distances
Refer to the minimum distances for the corresponding cylindrical or block type sensor.

* R= load impedance

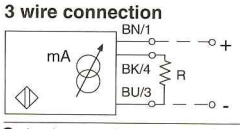
Wiring diagram

2 wire connection

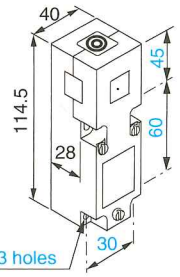


Output current		Value of R*
24V	4...14mA	≤ 640 Ω
	4...20mA	≤ 450 Ω
48V	4...14mA	≤ 2350 Ω

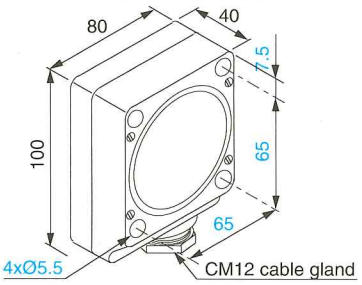
3 wire connection



Output current		Value of R*
24V	0...10mA	≤ 1800 Ω
	0...16mA	≤ 1125 Ω
48V	0...10mA	≤ 4200 Ω



P



P

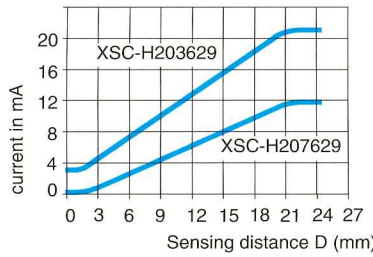
XSC-H207629		**XSD-H607629**	
	XSC-H203629		**XSD-H603629**

2x1.5mm2			
IP 67			
2...20 mm		**6...60 mm**	
2...20 mm		**6...60 mm**	
- 25 to +70°C			

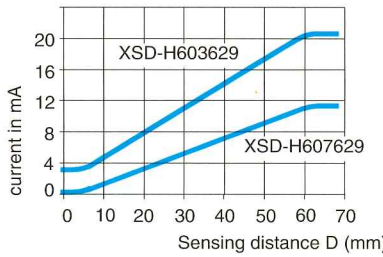
24...48 V DC	**24 V DC**	**24...48 V DC**	**24 V DC**
19...58 V DC	19...30 V DC	19...58 V DC	19...30 V DC
4 mA			
≤ 10%			

Output curves

Sn:20 mm

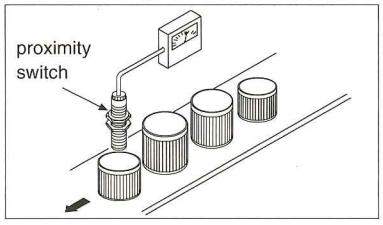


Sn:60 mm



Note: The above curves have been obtained using a standard A37 mild steel target object. The versions XS•-•••3•• are 2 wire connected and versions XS•-•••7••• are 3 wire connected.

Example: Sorting parts



These analogue proximity sensors are solid state sensors, designed for monitoring displacements.
They have a wide number of applications, but are particularly suitable for :
- deformation or displacement monitoring
- vibration amplitude and frequency monitoring
- control of dimensional tolerances
- position control
- monitoring of concentricity and eccentricity.

Principle of operation

The operating principle of the sensor is that of a damped oscillator.
The degree of damping will depend on the distance of the target object from the sensing face. The sensor will sense the distance and produce an output current with a value directly proportional to this distance.