Product datasheet

Specifications



Ultrasonic sensor - M18 metal - Sn 50mm - PNP NO - cable 2m

XXV18B1PAL2

Main

Range of product	Telemecanique Ultrasonic sensors XX
Sensor type	Ultrasonic sensor
Series name	General purpose
Sensor name	XXV
Sensor design	Cylindrical M18
Detection system	Diffuse
[Sn] nominal sensing distance	0.05 m fixed
Material	Metal
Type of output signal	Discrete
Discrete output function	1 NO
Wiring technique	3-wire
Discrete output type	PNP
[Us] rated supply voltage	12...24 V DC with reverse polarity protection
Electrical connection	Cable, 2 m cable length
[Sd] sensing range	0.003…0.05 m
Beam angle	10 °
IP degree of protection	IP67 conforming to IEC 60529

Complementary

Enclosure material	Brass
Front material	Epoxy
Thread type	M18 x 1
Supply voltage limits	10…36 V DC
[Sa] assured operating distance	0.003…0.05 m
Maximum differential travel	3 mm
Blind zone	0…3 mm
Transmission frequency	360 kHz
Repeat accuracy	1.5 %

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Deviation angle from 90° of object to be detected	-8…8 °
Minimum size of detected object	Cylinder diameter 2 mm at 0.02 m
Status LED	Output state: 1 LED (yellow)
Current consumption	15 mA
Maximum switching current	200 mA with overload and short-circuit protection
Maximum voltage drop	2 V
Switching frequency	<= 80 Hz
Maximum delay first up	5 ms
Maximum delay response	4 ms
Maximum delay recovery	4 ms
Marking	CE
Threaded length	51 mm
Height	18 mm
Width	18 mm
Depth	65 mm
Net weight	0.11 kg

Environment

Standards	IEC 60947-5-2
Product certifications	cULus
Ambient air temperature for operation	0…60 °C
Ambient air temperature for storage	-40…80 °C
Vibration resistance	+/- 2 mm conforming to IEC 60068-2-6 (f = 10…55 Hz)
Shock resistance	50 gn in all 3 axes for 11 ms conforming to IEC 60068-2-27
Resistance to electrostatic discharge	8 kV level 4 conforming to IEC 61000-4-2
Resistance to electromagnetic fields	10 V/m level 3 conforming to IEC 61000-4-3
Resistance to fast transients	1 kV level 3 conforming to IEC 61000-4-4

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	127.006 g
Package 1 Height	4.064 cm
Package 1 width	9.398 cm
Package 1 Length	13.208 cm

Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration

Mercury free	Yes
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information

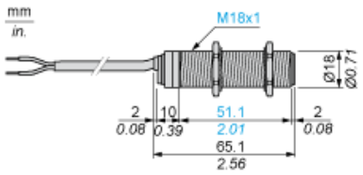
Contractual warranty

Warranty	18 months

Product datasheet XXV18B1PAL2

Dimensions Drawings

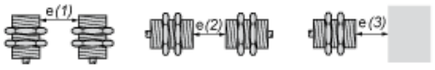
Dimensions



Product datasheet XXV18B1PAL2

Mounting and Clearance

Minimum Mounting Distances

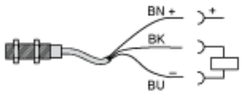


e(1) > 25 mm
e(2) > 700 mm
e(3) > 60 mm

Product datasheet XXV18B1PAL2

Connections and Schema

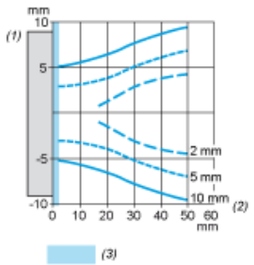
Wiring Diagram



BN Brown
BU Blue
BK Black

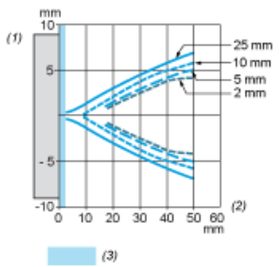
Curves

Square Object



(1) Parallel movement
(2) Distance
(3) Blind zone for diffuse sensors.

Cylindrical Object



(1) Parallel movement
(2) Distance
(3) Blind zone for diffuse sensors.