

Overview

- Effectively suppresses transient disturbances
- Scanning range 100 ... 1000 mm
- 0.5 ... 4.5 V voltage output
- Off-highway connector
- Off-highway EMC and environmental conformance



Picture similar



Technical data

General data

Scanning range Sd	100 ... 1000 mm (nominal)
Scanning range close limit Sdc	100 mm
Scanning range far limit Sde	1000 mm
Repeat accuracy	< 0.5 mm (typical) < 1 mm at 1000 mm
Resolution	< 0.3 mm < 0.9 mm at 1000 mm
Response time ton/toff	≤ 80 ms (if target is visible, 5.6 V/s slew rate limit)
Hold time (t hold)	700 ms (if target echo disappears)
Maximum output slew rate	≤ 780 ms (from 0.5V to 4.5V/from 4.5V to 0.5V)
Temperature drift	< 2 % of distance to target So
Power-up drift	Compensated after 15 min.
Sonic frequency	205 ... 235 kHz
Approvals/certificates	EN ISO 14982:2009 ^{1) 2)} EN 13309:2010 ^{1) 3)} ISO 13766:2006 ¹⁾ EN 61000-6-2 EN 61000-6-3

Electrical data

Voltage supply range +Vs	9 ... 27 VDC (12 VDC nominal system voltage)
Current consumption max. (no load)	35 mA
Output type	Analog voltage output
Output (Uout)	0.5 ... 4.5 V DC
Uout at Sdc	0.4 ... 0.6 V DC , nominal
Uout at Sde	4.4 ... 4.6 V DC , nominal

Electrical data

Uout at object too close	0.4 ... 0.6 V DC
Uout at object out of range	4.4 ... 4.6 V DC
Uout at sensor error	< 0.25 V
Maximum output current	≤ 10 mA
Short circuit protection	Yes
Reverse polarity protection	Yes

Mechanical data

Type	Flange mount with M6 mounting holes (6.6 mm +/- 0.1 mm)
Housing material	PA (glass fiber reinforced, with aluminium inserts)
Recommended mounting screws	MBN 10105 steel 8.8/10.9 M6 x 1 (Hexagon head screws with flange)
Installation torque	8 ... 10 Nm
Weight	40 g
Connection types	AMPSEAL 16, 3 pin
Mating connector housing	TE part #776429-1
Mating connector receptacles	TE part #1924464-1

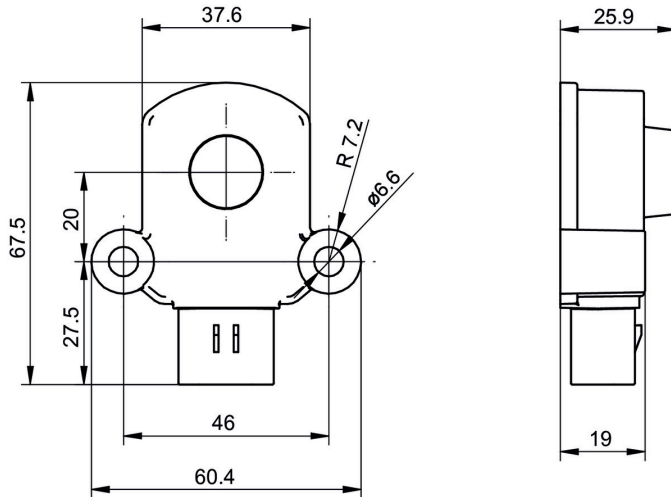
Ambient conditions

Operating temperature	-25 ... +70 °C
Storage temperature	-40 ... +85 °C
Altitude	< 2000 m
B10 life	10 000 h / 90 % confidence
Protection class	ISO 20653:2013 (IP 68/69K (50bar))
Random vibration	IEC 60068-2-64 (10 Hz ... 2000 Hz, 2.68 Grms)
Operating Mechanical Shock	IEC 60068-2-27 (50 g)

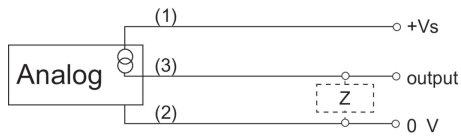
Remarks

- 1) only for use in machines with centralized load dump suppression (35 V @ 12 VDC vehicle power)
- 2) shall not be used in the direct control and modification of the state of function of the machine
- 3) not for operations during engine start phase in 12 V systems

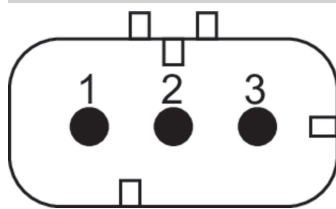
Dimension drawing



Connection diagram



Pin assignment



Typical sonic cone profile

