

Eddy current digital reference sensor

DRS-020

FEATURES

- Operating distance : 0 to 2mm
- Supply voltage range 10 to 30 VDC
- Output voltage drop < 2V at 200 mA
- Switching frequency < 3kHz
- Built-in protection : short-circuit, voltage reversal, and induction

Related applications

Phase reference measurement



DESCRIPTION

The Model DRS-020 Eddy current digital reference sensor is a self-contained, non-contact reference signal sensor.

Reference signal sensor is broadly used in the monitoring of rotating machine for analysis.

The sensor detects a metallic target glued on the shaft and provides a digital signal to the monitoring system. The distance between the target and the sensor tip must be below 2mm. The built-in LED enable to check the correct sensor operation.

The eddy current proximity switches react to metal parts only making them insensitive to dirt.

The embedded sensor head makes it robust to mechanical shocks. The built-in electronic is protected against short-circuits, induced overvoltage and power supply reversal.

The DRS-020 includes an extension cable, a metallic target and a package of glue.

GLOBAL SPECIFICATION

ELECTRICAL CHARACTERISTICS

Power supply	+10V _{DC} to +30V _{DC}
Current consumption	approx. 10mA
Signal output - Pulse	approx. +24V _{DC}
Rated operating distance	Sn 2mm
Hysteresis	< 10%
Repeat accuracy	0.04mm
Output current	< 200mA
Output voltage drop at 200mA	< 2V
No-load supply current	< 10mA
Leakage current	< 0.1mA
Switching frequency	< 3kHz
Time delay before availability	10ms
LED indicator	Built-in

ENVIRONMENTAL

Temperature range (sensor only)	
Operation	-25°C to 70°C
Storage	-40°C to +80°C
Sensor protection class	IP67
Connector protection class	IP67
Shocks and vibration	IEC 60947-5-2/7.4
EMC protection	IEC 60255-5 1kV
	IEC 61000-4-2 Level 3
	IEC 61000-4-3 Level 3
	IEC 6100-4-4 Level 3

PHYSICAL CHARACTERISTICS

Dimensions	Threaded body M8x1
Connector	S12, mating connector M12

CABLE PINOUT

Brown	+24VDC
White	0VDC
Green	Output signal
Black	Cable shield

ORDERING INFORMATION

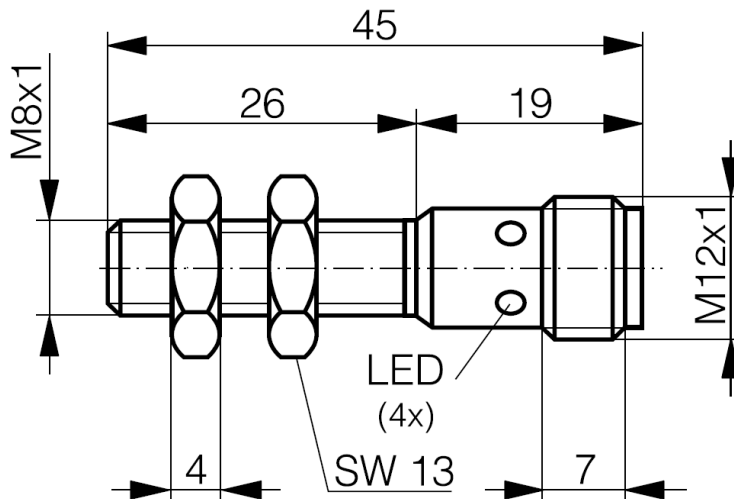
Part type	DRS-020
Ordering code	06.020.000
Description	Eddy current digital reference

The DRS-020 include :

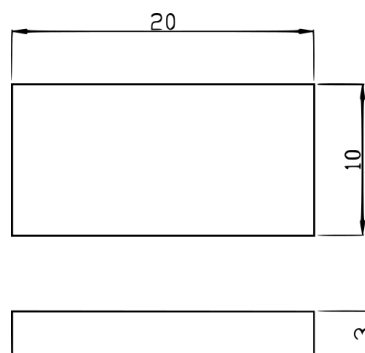
- 10m extension cable (20.600.010)
- metallic target (20x10x3mm)
- glue (Loctite 330)

MECHANICAL DRAWING

DRS-020 Probe



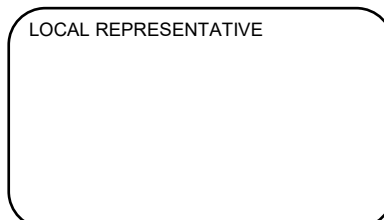
DRS-020 Target



MC-monitoring Quality certifications



LOCAL REPRESENTATIVE



MC-monitoring SA
Route André Piller 19 | PO BOX 97
CH-1762 Givisiez | Switzerland
Phone : +41 58 411 54 00
Fax : +41 58 411 54 10
Mail : info@mc-monitoring.com
sales@mc-monitoring.com
Web : mc-monitoring.com