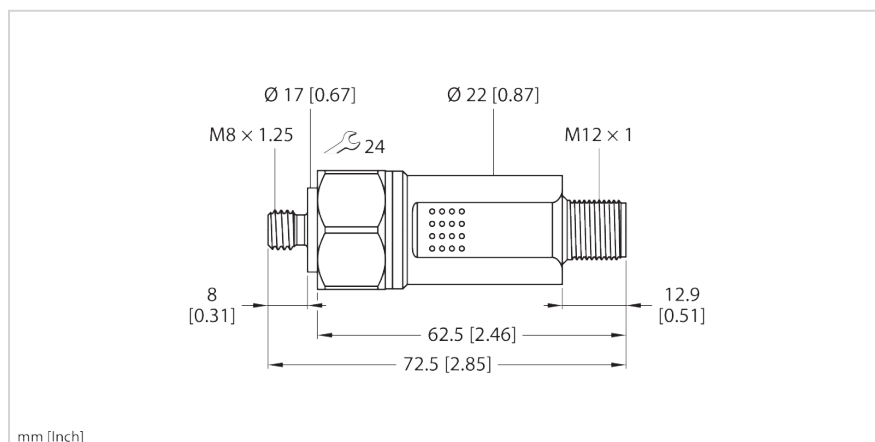


CMVT-M8TA1X-LI2IOL-H1141

Vibration and Temperature Sensor

For condition monitoring with IO-Link and 4...20 mA



Type designation	CMVT-M8TA1X-LI2IOL-H1141
Ident-No.	100050420

Technical data

Vibration - Acceleration	
Sampling rate of the acceleration measuring cell	23,6 KHz
RMS measuring range	10 g
RMS resolution	0.01 g
Accuracy RMS, typical	≤ +0,5 % @ 159 Hz
Vibration - Speed	
RMS measuring range	0...128 mm/s @ 159 Hz
RMS resolution	0.01 mm/s
RMS accuracy, typical	≤ ±0,5 % @ 159 Hz
Temperature	
Temperature measuring range	-40...80 °C
Temperature linearity deviation	≤ 10 %
Power supply	
Operating voltage U _B	18...30 VDC
Electrical data	
Current consumption	< 120 mA in IO-Link mode
Residual ripple	≤ 10 % U _{SS}
Interfaces	

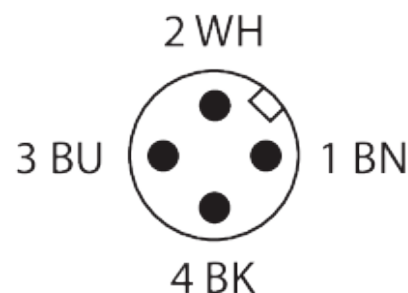
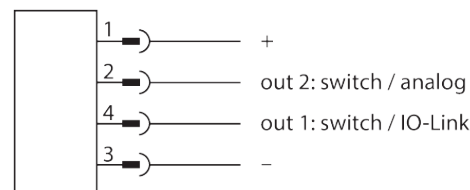
Features

- Stainless steel housing with M8 screw-in thread
- Speed output RMS and acceleration RMS, peak
- Acceleration measuring range RMS 10 g, peak 14 g
- Detection over one axis
- Frequency ranges configurable
- IO-Link, PNP, 4...20 mA
- Temperature measuring range -40 °C... +80 °C
- High protection class IP66/IP67
- M12 × 1 connector, 4-pin

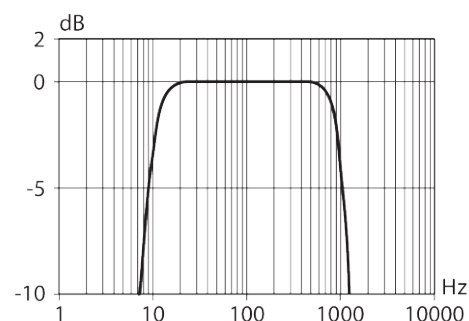
Technical data

Communication protocol	IO-Link
IO-Link	
Communication mode	COM 2 (38.4 kBaud)
Function Pin 2	4...20 mA/SIO
Function pin 4	IO-Link/SIO
Mechanical data	
Design	Cylinder, threaded
Dimensions	72,5 mm x 23,8 mm
Housing material	Stainless steel
Electrical connection	Connector, M12 x 1
Ambient conditions	
Ambient temperature	-40...+80 °C
Shock resistance (EN 60068-2-27)	60 g, 6 ms
Vibration resistance (EN 60068-2-6)	20 g; 5 h/axis; 3 axes
Protection class	IP66 IP67
Tests/approvals	
MTTF	164 Years acc. to SN 29500 (Ed. 99) 40 °C

Wiring diagram



Typical frequency response



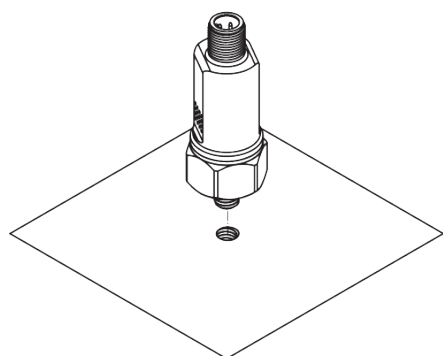
Functional principle

Condition monitoring sensors help to prevent unplanned downtimes and malfunctions during the production process. They monitor the condition of the machine as a preventative measure.

Using the CM sensors can prevent system downtime or machine damage, which in turn improves system effectiveness and allows uninterrupted operation.

The use of CMVT sensors also directly benefits the user in a quantifiable way. Information on vibration and temperature is output via the standardized IO-Link protocol. Warning and alarm messages can also be displayed via simple switching outputs.

Assembly instructions



24 mm
8 Nm

Installation information:

Using an M8 screw-in thread, the vibration sensors can be easily screwed into the component to be monitored and fastened into place.

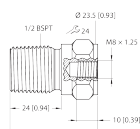
If other thread sizes are present in the component to be monitored, a wide range of accessories including thread adapters is available.

Mounting accessories

MA-M8-1/2-BSPT

100050775

M8 to 1/2" BSPT

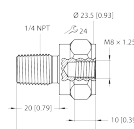


mm (inch)

MA-M8-1/4-NPT

100050776

M8 to 1/4" NPT

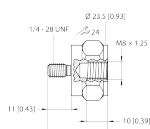


mm (inch)

MA-M8-1/4-UNF28G

100050777

M8 to 1/4" UNF 28 G

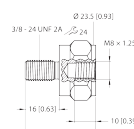


mm (inch)

MA-M8-3/8-24UNF2A

100050778

M8 to 3/8" 24 UNF 2A

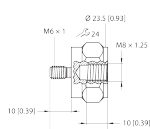


mm (inch)

MA-M8-M6

100050779

M8 to M6

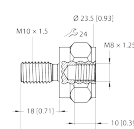


mm (inch)

MA-M8-M10

100050780

M8 to M10

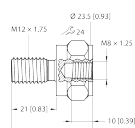


mm (inch)

MA-M8-M12

100050781

M8 to M12

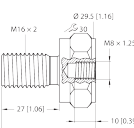


mm (inch)

MA-M8-M16

100050782

M8 to M16

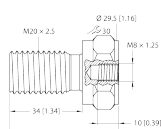


mm (inch)

MA-M8-M20

100050783

M8 to M20

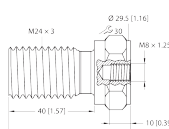


mm (inch)

MA-M8-M24

100050784

M8 to M24



mm (inch)

Mounting accessories

MA-M8-M30	100050785	M8 to M30	
			Mounting magnet for installing the CMVT-M8T housing; the sensor's magnetic mounting provides a flexible installation option. Permanent and operationally secure fixing depends on the application conditions and must be evaluated by the user.

Connection accessories

RKC4.4T-2/TXL	6625503	
		Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval
RKC4.4T-2-RSC4.4T/TXL	6625608	
		Extension cable, M12 female connector, straight, 4-pin to M12 male connector, straight, 4-pin; cable length: 2 m, jacket material: PUR, black; cULus approval

Functional accessories

USB-2-IOL-0002	6825482	IO-Link Master with integrated USB port	
			Compact multiprotocol I/O module, 4 IO-Link Master 1.1 Class A, 4 universal PNP digital channels 0.5 A