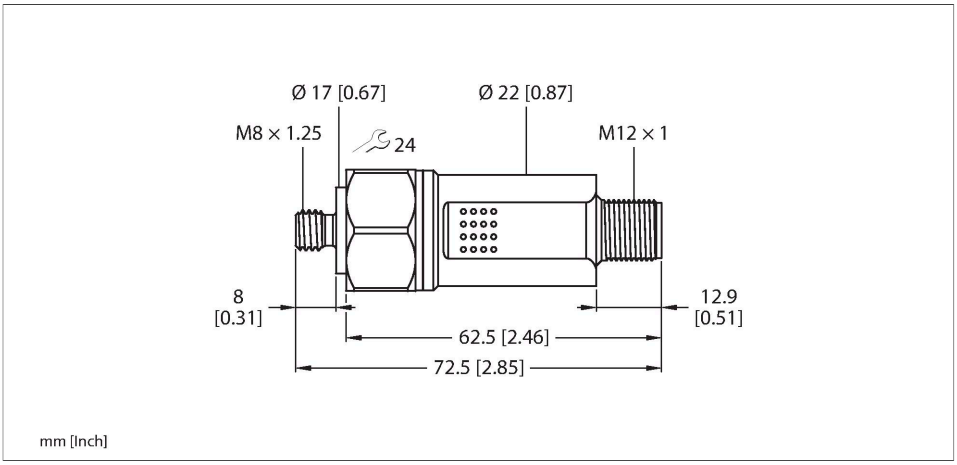
CMVT-M8TA1X-LI2IOL-H1141
Vibration and Temperature Sensor – For Condition Monitoring with IO-Link and 4…20 mA



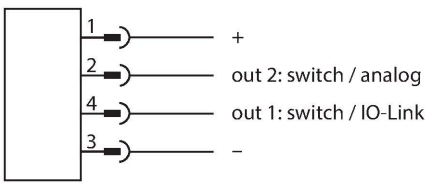
Technical data

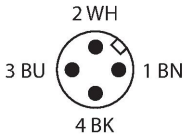
Type	CMVT-M8TA1X-LI2IOL-H1141
ID	100050420
Vibration — Acceleration	
Sampling rate of the acceleration measuring cell	23.6 KHz
RMS measuring range	10 g
RMS resolution	0.01 g
RMS accuracy, typical	≤ ±0,5 % @ 159 Hz
Vibration — Speed	
RMS measuring range	0…128 mm/s @ 159 Hz
RMS resolution	0.01 mm/s
RMS accuracy, typical	≤ ±0,5 % @ 159 Hz
Temperature	
Temperature measuring range	-40…80 °C
Temperature linearity deviation	≤ 10 %
Electrical data	
Operating voltage U_B	18…30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
Communication protocol	IO-Link
Current output	4…20 mA
Load resistance current output	≤ 0.5 kΩ
Current consumption	< 120 mA in IO-Link mode

Features

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

Wiring diagram



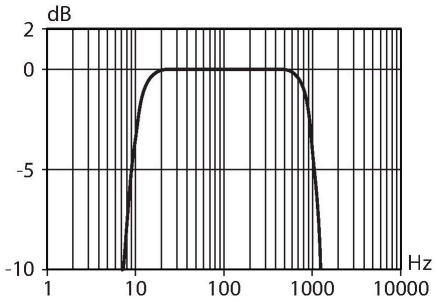


Functional principle

Technical data

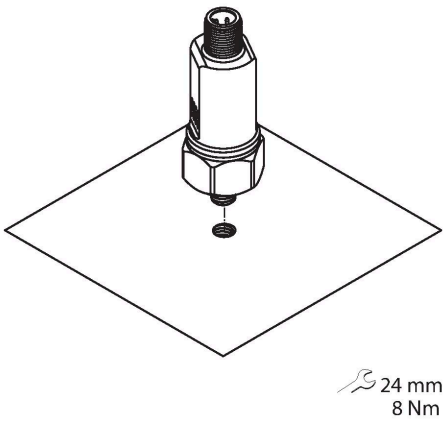
IO-Link	
Communication mode	COM 2 (38.4 kBaud)
Function pin 4	IO-Link/SIO
Function Pin 2	4…20 mA/SIO
Mechanical data	
Design	Cylindrical/threaded
Dimensions	72.5 x 23.8 mm
Housing material	Stainless steel
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-40…+80 °C
Vibration resistance (EN 60068-2-6)	20 g; 5 h/axis; 3 axes
Shock resistance (EN 60068-2-27)	60 g, 6 ms
Protection class	IP66 IP67
MTTF	164 years acc. to SN 29500 (Ed. 99) 40 °C

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.



Mounting instructions

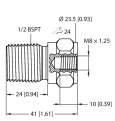
Mounting instructions/Description



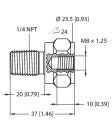
Using an M8 screw-in thread, the vibration sensors can be easily screwed into the component to be monitored and fastened into place.
If other thread sizes are present in the component to be monitored, a wide range of accessories including thread adapters is available.

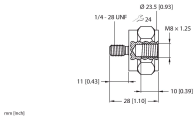
Accessories

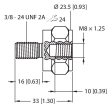
MA-M8-1/2-BSPT	100050775
Mounting adapter, M8 to 1/2" BSPT	

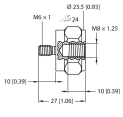


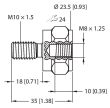
MA-M8-1/4-NPT	100050776
Mounting adapter, M8 to 1/4" NPT	

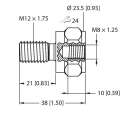


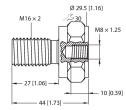
MA-M8-1/4-UNF28G	100050777
	Mounting adapter, M8 to 1/4" UNF 28 G

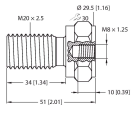
MA-M8-3/8-24UNF2A	100050778
	Mounting adapter, M8 to 3/8" 24 UNF 2A

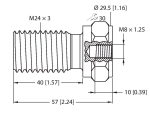
MA-M8-M6	100050779
	Mounting adapter, M8 to M6

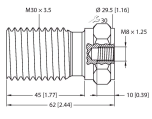
MA-M8-M10	100050780
	Mounting adapter, M8 to M10

MA-M8-M12	100050781
	Mounting adapter, M8 to M12

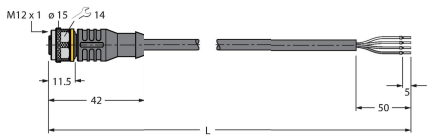
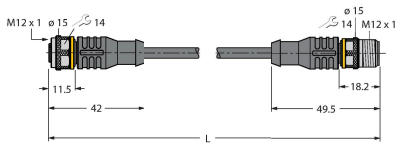
MA-M8-M16	100050782
	Mounting adapter, M8 to M16

MA-M8-M20	100050783
	Mounting adapter, M8 to M20

MA-M8-M24	100050784
	Mounting adapter, M8 to M24

MA-M8-M30	100050785
	Mounting adapter, M8 to M30

Wiring accessories

Dimension drawing	Type	ID	
	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