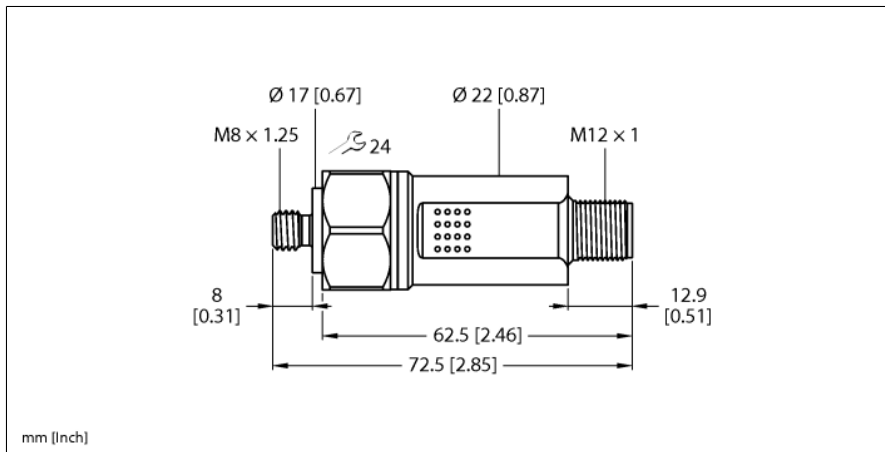


PRELIMINARY

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



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...147 mm/s @ 159 Hz
RMS resolution	0.01 mm/s
RMS accuracy, typical	≤ ±0,5 % @ 159 Hz

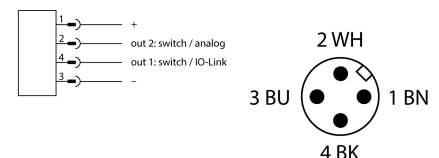
Temperature	
Temperature measuring range	-40...80 °C
Temperature linearity deviation	≤ 10 %

Electrical data	
Operating voltage U_s	18...30 VDC
Ripple U_s	≤ 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

IO-Link	
Communication mode	COM 2 (38.4 kBaud)
Function pin 4	IO-Link/SIO
Function Pin 2	4...20 mA/SIO

- 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

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.

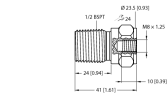
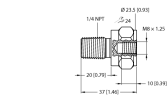
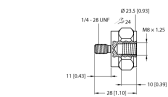
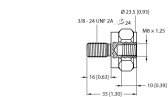
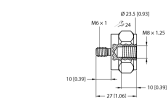
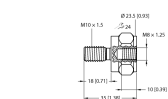
Using the CM sensors can prevent system downtime or machine damage, which in turn improves system effectiveness and allows uninterrupted operation.

The use of CMVT sensors also directly benefits the user in a quantifiable way.

Mechanical data	
Design	Cylinder, 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

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.

Accessories

Type code	Ident no.		Dimension drawing
MA-M8-1/2-BSPT	100050775	M8 to 1/2" BSPT	
MA-M8-1/4-NPT	100050776	M8 to 1/4" NPT	
MA-M8-1/4-UNF28G	100050777	M8 to 1/4" UNF 28 G	
MA-M8-3/8-24UNF2A	100050778	M8 to 3/8" 24 UNF 2A	
MA-M8-M6	100050779	M8 to M6	
MA-M8-M10	100050780	M8 to M10	

Accessories

Type code	Ident no.		Dimension drawing
MA-M8-M12	100050781	M8 to M12	
MA-M8-M16	100050782	M8 to M16	
MA-M8-M20	100050783	M8 to M20	
MA-M8-M24	100050784	M8 to M24	
MA-M8-M30	100050785	M8 to M30	