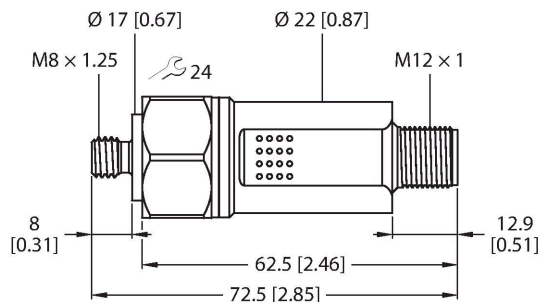


# CMVT-M8TA1X-LI2IOL-H1141

## Vibration and Temperature Sensor – For Condition Monitoring with IO-Link and 4...20 mA



mm [Inch]



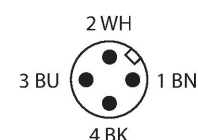
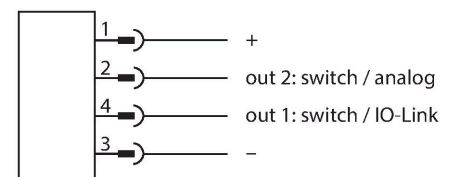
### Technical data

Type	CMVT-M8TA1X-LI2IOL-H1141
ID	100050420
<b>Vibration — Acceleration</b>	
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
<b>Vibration — Speed</b>	
RMS measuring range	0...128 mm/s @ 159 Hz
RMS resolution	0.01 mm/s
RMS accuracy, typical	≤ ±0,5 % @ 159 Hz
<b>Temperature</b>	
Temperature measuring range	-40...80 °C
Temperature linearity deviation	≤ 10 %
<b>Electrical data</b>	
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
<b>IO-Link</b>	
Communication mode	COM 2 (38.4 kBaud)
Function pin 4	IO-Link/SIO
Function Pin 2	4...20 mA/SIO

### 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

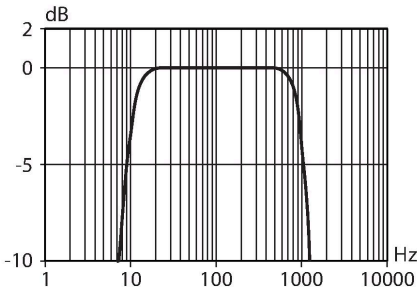
Condition monitoring sensors help to prevent unplanned downtimes and malfunctions during the production process. They monitor the condition of the machine as a preventative measure.

Technical data

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

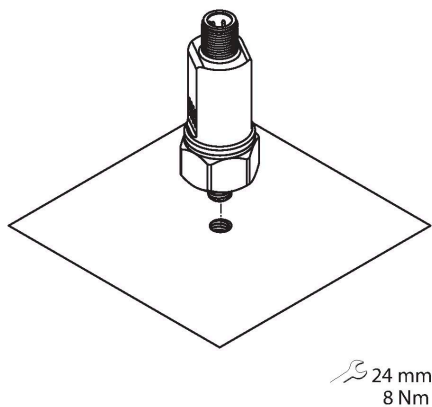
Using the CM sensors can prevent system downtime or machine damage, which in turn improves system effectiveness and allows uninterrupted operation.

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.

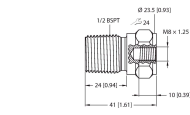
If other thread sizes are present in the component to be monitored, a wide range of accessories including thread adapters is available.

Accessories

MA-M8-1/2-BSPT

100050775

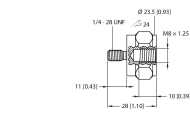
Mounting adapter, M8 to 1/2" BSPT



MA-M8-1/4-UNF28G

100050777

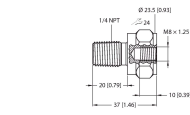
Mounting adapter, M8 to 1/4" UNF 28 G



MA-M8-1/4-NPT

100050776

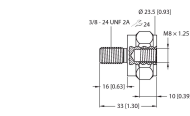
Mounting adapter, M8 to 1/4" NPT



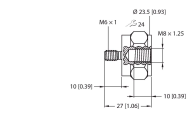
MA-M8-3/8-24UNF2A

100050778

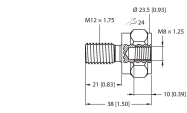
Mounting adapter, M8 to 3/8" 24 UNF 2A



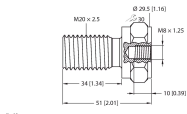
MA-M8-M6 100050779 Mounting adapter, M8 to M6



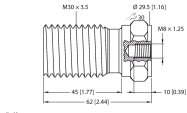
MA-M8-M12 100050781 Mounting adapter, M8 to M12



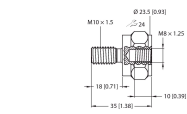
MA-M8-M20 100050783 Mounting adapter, M8 to M20



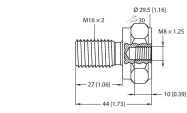
MA-M8-M30 100050785 Mounting adapter, M8 to M30



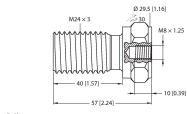
MA-M8-M10 100050780 Mounting adapter, M8 to M10



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



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

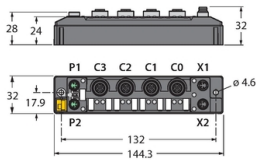
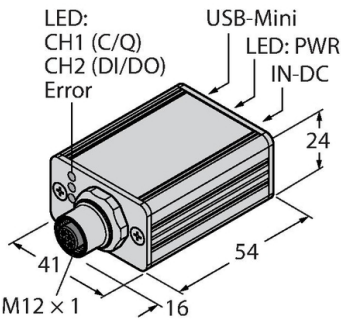


Accessories

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

Accessories

Dimension drawing	Type	ID	
	USB-2-IOL-0002	6825482	IO-Link Master with integrated USB port



TBEN-S2-4IOL	6814024	Compact multiprotocol I/O module, 4 IO-Link Master 1.1 Class A, 4 universal PNP digital channels 0.5 A
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