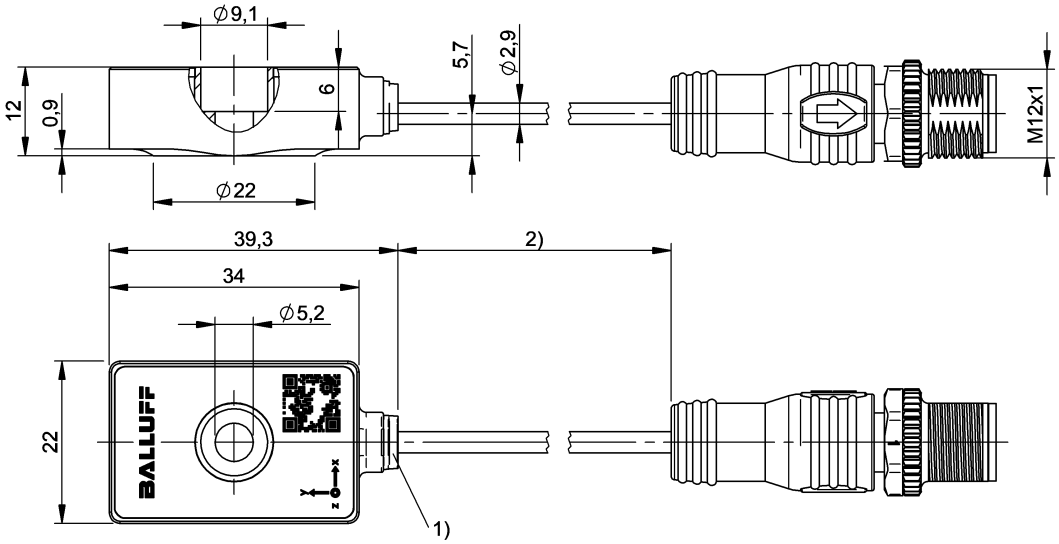
Condition Monitoring Sensors

BCM R16E-004-CI02-01,5-S4
Order Code: BCM0003



1) LED function indicator, 2) Cable length

Basic features

Approval/Conformity	CE UKCA WEEE cULus
Function	Vibration analysis in time domain Vibration analysis in frequency range Rotational speed input Contact temperature monitoring
Principle of operation	Condition Monitoring Sensors
Secondary features	Identification Device Discovery Switching Counter Logic Blocks Operating Hours Counter Boot Cycle Counter Voltage and Current Monitoring Pin Assignment
Secondary features for condition monitoring	Internal temperature monitoring
Series	R16

Display/Operation

Display	RGB LED

Electrical connection

Bending radius min., fixed cable	≥ 5 D
Bending radius min., flexible cable	≥ 10 D
Cable diameter D	2.9 mm ±0.1 mm
Conductor cross-section	0.10 mm²
Connection	Cable with connector, M12x1-Male, 4-pin, 1.5 m, PUR
Number of conductors	4
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Current draw max.	30 mA
Operating voltage Ub	10...30 VDC
Protection class	III
Rated operating voltage Ue DC	24 V
Ready delay tv max.	7 s

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Environmental conditions

Ambient temperature	-40...80 °C
EN 61000-4-2, ESD	2A (4kV)
EN 61000-4-3, RFI	80 MHz - 1000 MHz: 3A (12 V/m) 1400 MHz - 2000 MHz: 3A (12 V/m) 2000 MHz - 2700 MHZ: 2A (4 V/m)
EN 61000-4-4, Burst	4A (2kV)
EN 61000-4-6, High-frequency fields	2A (5Vrms)
IP rating	IP67, IP68, IP69K
Storage temperature	-40...80 °C

Function module contact temperature

Contact temperature, measuring error	±3 °C
Contact temperature, measuring range	-40...+80 °C
Contact temperature, non-linearity	±3.5 °C
Contact temperature, resolution	0.1 °C
Contact temperature, settling time	5 min

Function module vibration

Vibration, Evaluation values frequency domain	Amplitude Spectrum Envelope Spectrum
Vibration, Evaluation values time domain	RMS Peak Max Crest Factor Skewness Kurtosis
Vibration, frequency range	2...4500 Hz (±10 %) 2...6000 Hz (±3 dB)
Vibration, measuring principle	MEMS
Vibration, measuring range	-16...16 g
Vibration, number of measuring axes	3

Interface

Baud rate	COM3 (230,4 kBaud)
Interface	IO-Link 1.1.3
Process data IN	32 bytes
Process data OUT	3 bytes
Process data cycle min.	4 ms
Switching output	Pin 2: PNP/NPN/push-pull NO/NC Pin 4: Push-pull NO/NC

Material

Housing material	Stainless steel 1.4404 (316L)

Mechanical data

Dimension	22 x 12 x 34 mm
Mounting part	Screw M5
Mounting surface	≥ Ø22 mm
Tightening torque	max. 5 Nm (steel), max. 2.5 Nm (aluminium)
Weight	40.5 g

Remarks

For additional information, refer to user's guide.
Order accessories separately.
The recommended tightening torque for mounting refers to the mounting screw enclosed with the sensor.
The UL approval is only valid for an ambient temperature up to a maximum of 70 °C
For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

Connector Drawings

