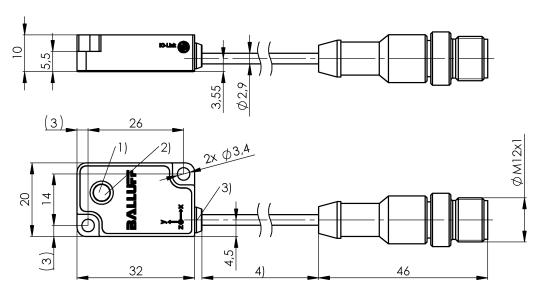
BCM R15E-002-DI00-01,5-S4

Order Code: BCM0002

BALLUFF



- 1) Membrane
- 2) LED orange
- 3) LED green
- 4) Cable length









Basic features

Approval/Conformity

CE cULus WEEE

Function

Vibration Velocity Vibration Acceleration Vibration Severity Zone Contact Temperature Relative Humidity Ambient Pressure Sensor Self-Awareness **Condition Monitoring Sensors**

Principle of operation

Series

Display/Operation

Display

Run - LED green Communication - LED green, slow flashing (1 Hz) Ping - LED green, asyncronous very fast flashing (4 Hz) and fast

flashing (2 Hz) Event - LED orange, fast flashing

(2 Hz)

Electrical connection

Bending radius min., fixed cable Bending radius min., flexible cable

Cable diameter D

Conductor cross-section

Number of conductors

Connection

2.9 mm +0.1/-0.05 mm

Male, 3-pin, 1.5 m, PUR

0.14 mm²

3 x D

5 x D

Cable with connector, M12x1-

Polarity reversal protected Protection against device mix-ups

Short-circuit protection

yes yes yes

Electrical data

Current draw max. Operating voltage Ub

Protection class

10 mA 18...30 VDC

Rated operating voltage Ue DC

24 V

Ready delay tv max.

1.5 s

1/3

Condition Monitoring Sensors

BCM R15E-002-DI00-01.5-S4 Order Code: BCM0002



Environmental conditions

0...70 °C Ambient temperature EN 61000-4-2, ESD Severity Level 2 EN 61000-4-3, RFI Severity Level 3 EN 61000-4-4, Burst Severity Level 4 EN 61000-4-6, High-frequency fields Severity Level 3 IP67 IP rating Storage temperature -20...70 °C

Function module ambient pressure

Ambient pressure, measuring range 300...1100 hPa Ambient pressure, non-linearity ±0.1 %FS Ambient pressure, resolution 0.15 hPa

Function module contact temperature

Contact temperature, measuring 0...70 °C range Contact temperature, non-linearity ±0.75 %FS Contact temperature, resolution 0.1 °C Contact temperature, settling time 5 min

Contact temperature, measuring error ±2 %FS

Function module relative humidity

Relative humidity, measuring range 5...95 %rF Relative humidity, non-linearity ±2.5 %FS Relative humidity, resolution 1 %rF Relative humidity, settling time 5 min

Function module vibration

2...3200 Hz Vibration, frequency range Vibration, measuring principle MEMS Vibration, number of measuring axes 3 Vibration, sampling rate 6400 Hz

Function module vibration acceleration

±5 %FS @79.4 Hz Vibration acceleration, measuring error RMS

Vibration acceleration, measuring 0...16 g

range RMS

±2 %FS @79.4 Hz Vibration acceleration, non-linearity

RMS

Vibration acceleration, resolution 0.006 g @79.4 Hz

Vibration acceleration, statistical RMS Peak to Peak evaluation variables [for each

measuring axis]

Remarks

For additional information, refer to user's guide. Order accessories separately.

Function module vibration velocity

Vibration velocity, evaluation variables [for each measuring axis] Peak to Peak Mean

Standard Deviation Crest Factor Skewness Kurtoisis

Vibration velocity, measuring error

±5 %FS @79.4 Hz

RMS

Vibration velocity, measuring range

0...220 mm/s @79.4 Hz

RMS

Vibration velocity, non-linearity RMS ±2 %FS @79.4 Hz Vibration velocity, resolution RMS 0.42 mm/s @79.4 Hz

Material

Housing material Stainless steel (1.4404),

Membrane: ePTFE with nylon

fleece

Mechanical data

Dimension 20 x 10 x 32 mm Mounting Screw M3 (2x) Weight 30 g

Output/Interface

Baud rate COM3 (230,4 kBaud)

Interface IO-Link 1.1

Interface setting option Flexible process data

configuration

Vibration measurement based on

ISO 10816-3

Data preprocessing (statistics) Events (pre-alarms and main

Delay times for alarms

Search function with LED display

(ping)

Process data IN 20 bytes Process data OUT 0 bytes Process data cycle min. 10 ms

2/3

Condition Monitoring Sensors

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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.

Wiring Diagrams

Pin	Color	Signal
1	BN	+24V
3	BU	GND
4	BK	C/Q

Subject to change without notice: 279554