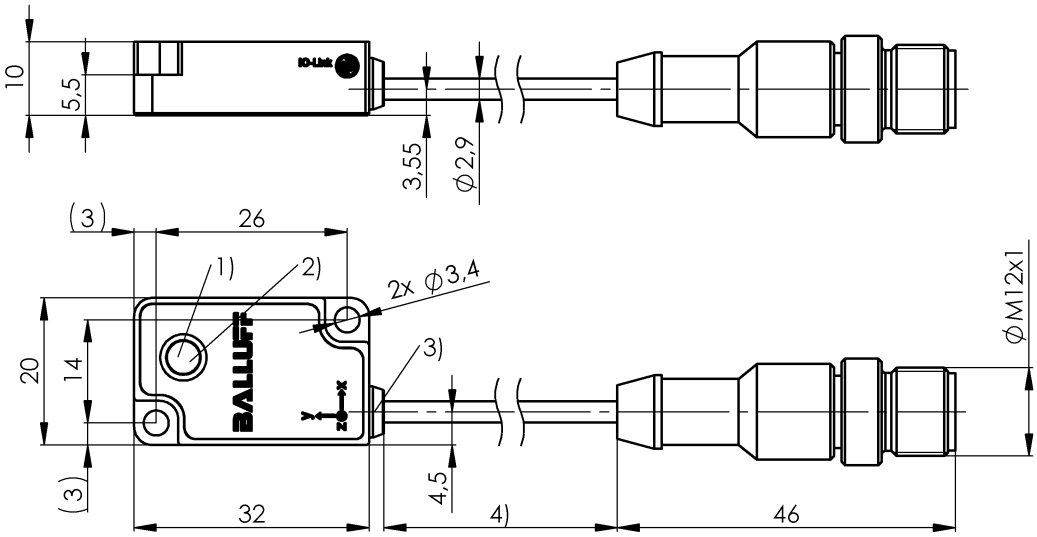
Condition Monitoring Sensors

# BCM R15E-002-DI00-01,5-S4
# Order Code: BCM0002




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

## Basic features

| | |
|---|---|
| Approval/Conformity | CE<br>UKCA<br>WEEE<br>cULus |
| Function | Vibration analysis in time domain<br>Contact temperature monitoring<br>Relative Humidity<br>Ambient Pressure |
| Principle of operation | Condition Monitoring Sensors |
| Series | R15 |

## Display/Operation

| | |
|---|---|
| Display | LED green<br>LED orange |

## Electrical connection

| | |
|---|---|
| Bending radius min., fixed cable | 3 x D |
| Bending radius min., flexible cable | ≥ 5 D |
| Cable diameter D | 2.9 mm +0.1/-0.05 mm |
| Conductor cross-section | 0.14 mm² |
| Connection | Cable with connector, M12x1-Male, 3-pin, 1.5 m, PUR |
| Number of conductors | 3 |
| Polarity reversal protected | yes |
| Protection against device mix-ups | yes |
| Short-circuit protection | yes |

## Electrical data

| | |
|---|---|
| Current draw max. | 10 mA |
| Operating voltage Ub | 18...30 VDC |
| Protection class | III |
| Rated operating voltage Ue DC | 24 V |
| Ready delay tv max. | 1.5 s |

## Environmental conditions

| | |
|---|---|
| Ambient temperature | -25...70 °C |
| 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 |
| IP rating | IP67 |
| Storage temperature | -25...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 error | ±1.5 °C |
| Contact temperature, measuring range | -25...+70 °C |
| Contact temperature, non-linearity | ±0.5 °C |
| Contact temperature, resolution | 0.1 °C |
| Contact temperature, settling time | 5 min |

Condition Monitoring Sensors

# BCM R15E-002-DI00-01,5-S4
# Order Code: BCM0002

## Function module relative humidity

| | |
|---|---|
| **Relative humidity, measuring range** | 5...95 %RH |
| **Relative humidity, non-linearity** | ±2.5 % RH |
| **Relative humidity, resolution** | 1 %RH |
| **Relative humidity, settling time** | 5 min |

## Function module vibration

| | |
|---|---|
| **Vibration, Evaluation values time domain** | RMS<br>Peak to Peak<br>Max<br>Crest Factor<br>Skewness<br>Kurtosis |
| **Vibration, frequency range** | 2...1800 Hz (±10 %)<br>2...2500 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 |
| **Process data IN** | 20 bytes |
| **Process data OUT** | 0 bytes |
| **Process data cycle min.** | 10 ms |

## Material

| | |
|---|---|
| **Housing material** | 1.4404 stainless steel, Membrane: ePTFE with nylon fleece |

## Mechanical data

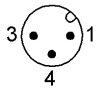
| | |
|---|---|
| **Dimension** | 20 x 10 x 32 mm |
| **Mounting part** | Screw M3 (2x) |
| **Mounting surface** | ≥ 32 x 20 mm |
| **Weight** | 30 g |

## Remarks

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




## Wiring Diagrams (Schematic)

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