

**Sensor box**  
**SRBE-CA3-YR90-N-1-P-C2M20-EX**  
Part number: 3471015

**FESTO**



**Data sheet**

| Feature                                      | Value                                                                                                                                                                                                                                                     |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Design                                       | Rectangular                                                                                                                                                                                                                                               |
| Based on norm                                | EN 60947-5-2<br>ISO 5211<br>VDI/VDE 3845                                                                                                                                                                                                                  |
| Certification                                | RCM compliance mark                                                                                                                                                                                                                                       |
| CE marking (see declaration of conformity)   | As per EU EMC directive<br>as per EU explosion protection directive (ATEX)<br>As per EU RoHS directive                                                                                                                                                    |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC<br>acc. to UK EX instructions<br>To UK RoHS instructions                                                                                                                                                                       |
| Explosion prevention and protection          | Zone 1 (ATEX)<br>Zone 1 (BR)<br>Zone 1 (CN)<br>Zone 1 (IEC-EX)<br>Zone 1 (KR)<br>Zone 1 (UKEX)<br>Zone 2 (ATEX)<br>Zone 21 (ATEX)<br>Zone 21 (BR)<br>Zone 21 (CN)<br>Zone 21 (IEC-EX)<br>Zone 21 (IN)<br>Zone 21 (KR)<br>Zone 21 (UKEX)<br>Zone 22 (ATEX) |
| ATEX category gas                            | II 2G                                                                                                                                                                                                                                                     |
| Type of ignition protection for gas          | Ex db IIC T6 Gb                                                                                                                                                                                                                                           |
| ATEX category for dust                       | II 2D                                                                                                                                                                                                                                                     |
| Type of (ignition) protection for dust       | Ex tb IIIC T...°C Db                                                                                                                                                                                                                                      |

| Feature                                                                  | Value                                                                                                                                                                                    |
|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Explosion protection certification outside the EU                        | EPL Db (BR)<br>EPL Db (CN)<br>EPL Db (GB)<br>EPL Db (IEC-EX)<br>EPL Db (IN)<br>EPL Db (KR)<br>EPL Gb (BR)<br>EPL Gb (CN)<br>EPL Gb (GB)<br>EPL Gb (IEC-EX)<br>EPL Gb (IN)<br>EPL Gb (KR) |
| Explosive ambient temperature                                            | -20°C ≤ Ta ≤ +60°C                                                                                                                                                                       |
| Max. surface temperature                                                 | 61 °C                                                                                                                                                                                    |
| Certificate issuing authority                                            | 18-GA4BO-0516X<br>18-GA4BO-0517X<br>DNV 16.0067X<br>FTZU 15 ATEX 0095X<br>GYJ16.1497X<br>GYJ23.1167X<br>IECEx FTZU 15.0014X<br>KCC-18-GA4BO                                              |
| Note on materials                                                        | RoHS-compliant                                                                                                                                                                           |
| Safety integrity level (SIL)                                             | SIL 2                                                                                                                                                                                    |
| Measuring principle                                                      | Inductive                                                                                                                                                                                |
| Ambient temperature                                                      | -20 °C...60 °C                                                                                                                                                                           |
| Switching output                                                         | PNP                                                                                                                                                                                      |
| Switching element function                                               | N/O contact                                                                                                                                                                              |
| Max. output current DC                                                   | 100 mA                                                                                                                                                                                   |
| Voltage drop                                                             | 3 V                                                                                                                                                                                      |
| Residual current                                                         | 0 mA...0.5 mA                                                                                                                                                                            |
| Short-circuit protection                                                 | Pulsed                                                                                                                                                                                   |
| DC operating voltage range                                               | 10 V...30 V                                                                                                                                                                              |
| Idle current                                                             | 15 mA                                                                                                                                                                                    |
| Reverse polarity protection                                              | for all electrical connections                                                                                                                                                           |
| Microswitch type                                                         | P&F NBB2-V3-E2                                                                                                                                                                           |
| Electrical connection                                                    | 10-pin<br>Screw terminal                                                                                                                                                                 |
| Closable nominal conductor cross-section                                 | 0.25 mm²...2.5 mm²                                                                                                                                                                       |
| Cable fitting                                                            | M20x1.5                                                                                                                                                                                  |
| Type of mounting                                                         | as per VDI/VDE 3845                                                                                                                                                                      |
| Connection point for positioner and position sensor conforms to standard | VDI/VDE 3845 size AA 1                                                                                                                                                                   |
| Mounting position                                                        | Any                                                                                                                                                                                      |
| Product weight                                                           | 1700 g                                                                                                                                                                                   |
| Housing colour                                                           | Silver                                                                                                                                                                                   |
| Housing material                                                         | Die cast aluminum, painted                                                                                                                                                               |
| Seals material                                                           | NBR                                                                                                                                                                                      |
| Shaft material                                                           | High-alloy stainless steel                                                                                                                                                               |
| Material of screws                                                       | High-alloy stainless steel                                                                                                                                                               |
| Material of mounting bracket                                             | High-alloy stainless steel                                                                                                                                                               |
| Pointer material                                                         | PC                                                                                                                                                                                       |
| Circlip material                                                         | High-alloy stainless steel                                                                                                                                                               |
| Disc material                                                            | High-alloy stainless steel                                                                                                                                                               |
| Position indicator                                                       | Yellow/red                                                                                                                                                                               |
| Angle detection setting range                                            | 0 deg...90 deg                                                                                                                                                                           |
| Storage temperature                                                      | -20 °C...60 °C                                                                                                                                                                           |
| Degree of protection                                                     | IP67                                                                                                                                                                                     |

| Feature                | Value                                                                                |
|------------------------|--------------------------------------------------------------------------------------|
| Shock resistance       | Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27                |
| Vibration resistance   | Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6 |
| LABS (PWIS) conformity | VDMA24364 zone III                                                                   |
| Contamination level    | 3                                                                                    |