



Model Number

CCB10-30GS55-N1-V1

Features

- 10 mm flush
- The switching distance can be set over a wide range with the potentiometer

Accessories

BF 30

Mounting flange, 30 mm

V1-W-N4-2M-PVC

Female cordset, M12, 4-pin, NAMUR, PVC cable

V1-W-N4-5M-PVC

Female cordset, M12, 4-pin, NAMUR, PVC cable

V1-G-N4-5M-PVC

Female cordset, M12, 4-pin, NAMUR, PVC cable

V1-G-N4-5M-PUR

Female cordset, M12, 4-pin, NAMUR, PUR cable

V1-W-N4-5M-PUR

Female cordset, M12, 4-pin, NAMUR, PUR cable

Technical Data

General specifications

| | |
|--------------------------|--------------------|
| Switching function | Normally open (NO) |
| Output type | NAMUR |
| Rated operating distance | s_n 10 mm |
| Installation | flush |
| Output type | 2-wire |

Nominal ratings

| | |
|------------------------------|--|
| Installation conditions | |
| A | 0 mm |
| B | 0 mm |
| C | 20 mm |
| F | 60 mm |
| Nominal voltage | U_o 8.2 V (R_i approx. 1 k Ω) |
| Operating voltage | U_B 5 ... 15 V |
| Switching frequency | f 0 ... 50 Hz |
| Reverse polarity protection | reverse polarity protected |
| Current consumption | |
| Measuring plate not detected | ≤ 1.5 mA |
| Measuring plate detected | ≥ 2.5 mA |
| Switching state indicator | LED, yellow |

Functional safety related parameters

| | |
|--------------------------|--------|
| MTTF _d | 1134 a |
| Mission Time (T_M) | 20 a |
| Diagnostic Coverage (DC) | 0 % |

Ambient conditions

| | |
|---------------------|-------------------------------|
| Ambient temperature | -20 ... 70 °C (-4 ... 158 °F) |
|---------------------|-------------------------------|

Mechanical specifications

| | |
|----------------------|-----------------------------------|
| Connection type | Connector plug M12 x 1, 4-pin |
| Housing material | Stainless steel 1.4305 / AISI 303 |
| Sensing face | PTFE |
| Degree of protection | IP67 |

General information

| | |
|---------------------------|-------------------------|
| Use in the hazardous area | see instruction manuals |
| Category | 1G; 1D |

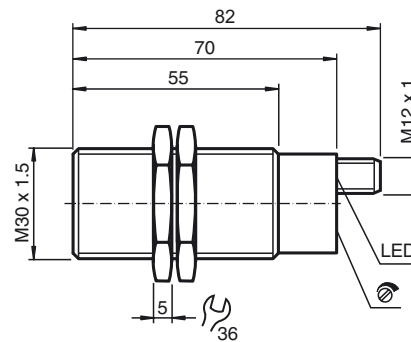
Compliance with standards and directives

| | |
|---------------------|---|
| Standard conformity | |
| NAMUR | EN 60947-5-6:2000 IEC 60947-5-6:1999 |
| Standards | |
| | EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012 |

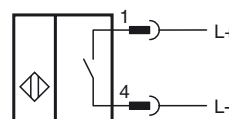
Approvals and certificates

| | |
|--------------|--|
| ETL approval | cETLus |
| CCC approval | CCC approval / marking not required for products rated ≤ 36 V |

Dimensions



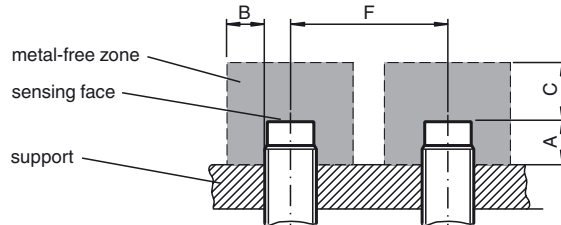
Electrical Connection



Pinout



Installation Conditions



Equipment protection level Ga

| | | |
|---|---|------------------------|
| CE marking | CE 0102 | |
| ATEX marking | II 1G Ex ia IIC T1-T6 Ga | |
| Standards | EN 60079-0:2012, EN 60079-11:2012, EN 60079-26:2007 Ignition protection "Intrinsic safety" | |
| Appropriate type | CCB10-30GS55-N1... | |
| Effective internal capacitance | C_i | $\leq 250 \text{ nF}$ |
| Effective internal inductance | L_i | $\leq 200 \mu\text{H}$ |
| Highest permissible ambient temperature | | |
| T6 when $P_i = 100 \text{ mW}$, $U_i = 15 \text{ V}$, $I_i = 30 \text{ mA}$ | 40 °C (104 °F) | |
| T5 when $P_i = 100 \text{ mW}$, $U_i = 15 \text{ V}$, $I_i = 30 \text{ mA}$ | 40 °C (104 °F) | |
| T4 when $P_i = 100 \text{ mW}$, $U_i = 15 \text{ V}$, $I_i = 30 \text{ mA}$ | 80 °C (176 °F) | |
| T3, T2, T1 when $P_i = 100 \text{ mW}$, $U_i = 15 \text{ V}$, $I_i = 30 \text{ mA}$ | 100 °C (212 °F) | |
| Special conditions | | |

Equipment protection level Da

| | | |
|--------------------------------|---|------------------------|
| CE marking | CE 0102 | |
| ATEX marking | II 1D Ex ia IIIC T101°C Da | |
| Standards | EN 60079-0:2012; EN 60079-11:2012 type of protection intrinsic safety "ia" | |
| Appropriate type | CCB10-30GS55-N1... | |
| Effective internal capacitance | C_i | $\leq 250 \text{ nF}$ |
| Effective internal inductance | L_i | $\leq 200 \mu\text{H}$ |
| Special conditions | | |

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