



1) Sensing surface



### Basic features

Approval/Conformity	CE cULus WEEE
Basic standard	IEC 60947-5-2
Scope of delivery	Mounting bracket BES Q40-HW-2

### Display/Operation

Function indicator	yes
Power indicator	yes

### Electrical connection

Connection	M12x1-Male, 4-pin, A-coded
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

### Electrical data

Load capacitance max. at Ue	1 µF
Min. operating current I <sub>m</sub>	0 mA
No-load current I <sub>o</sub> max., damped	20 mA
No-load current I <sub>o</sub> max., undamped	15 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Output resistance R <sub>a</sub>	33.0 kOhm + D
Protection class	II
Rated insulation voltage U <sub>i</sub>	250 V AC
Rated operating current I <sub>e</sub>	200 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Rated short circuit current	100 A
Ready delay t <sub>v</sub> max.	30 ms
Residual current I <sub>r</sub> max.	80 µA
Ripple max. (% of U <sub>e</sub> )	15 %
Switching frequency	50 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

## Environmental conditions

Ambient temperature	-25...70 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 g <sub>n</sub> , 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP67

## Interface

Switching output	PNP normally open/normally closed (NO/NC)
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## Material

Housing material	PBT
Material sensing surface	PBT

## Mechanical data

Dimension	40 x 40 x 62 mm
Installation	for flush mounting
Size	40x40
Tightening torque	40 Nm

## Range/Distance

Assured operating distance Sa	16 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	20 mm
Real switching distance sr	20 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

## Remarks

LED 1: Function  
 LED 2: Operating voltage  
 The sensor is functional again after the overload has been eliminated.

## Connector Drawings



## Wiring Diagrams (Schematic)

