



### 1) Sensing surface











### Basic features

Approval/Conformity	CE UKCA WEEE
Basic standard	IEC 60947-5-2
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	0.5 μF
Min. operating current Im	0 mA
No-load current lo max., damped	15 mA
No-load current lo max., undamped	12 mA
Operating voltage Ub	1055 VDC
Output resistance Ra	33.0 kOhm + D
Protection class	II
Rated insulation voltage Ui	250 V AC
Rated operating current le	200 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Ready delay tv max.	150 ms
Residual current Ir max.	20 μΑ
Ripple max. (% of Ue)	10 %
Switching frequency	50 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

# BES Q80KA-PSH50F-S04Q Order Code: BES0228



### 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

### Functional safety

MTTF (40 °C) 785 a Interface

# Material

Switching output

Housing material PBT, GF30 Material sensing surface PBT, GF30

### Mechanical data

Dimension 106 x 80 x 40 mm Installation non-flush 80x80 Size Tightening torque 3 Nm

### Range/Distance

Assured operating distance Sa 40 mm Hysteresis H max. (% of Sr) 15.0 % Rated operating distance Sn 50 mm Real switching distance sr 50 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.

Not for flush mounting: See installation instructions for inductive sensors with extended range 939228.

PNP normally open (NO)

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.

Subject to change without notice: 279584

## **Connector Drawings**



## Wiring Diagrams (Schematic)

