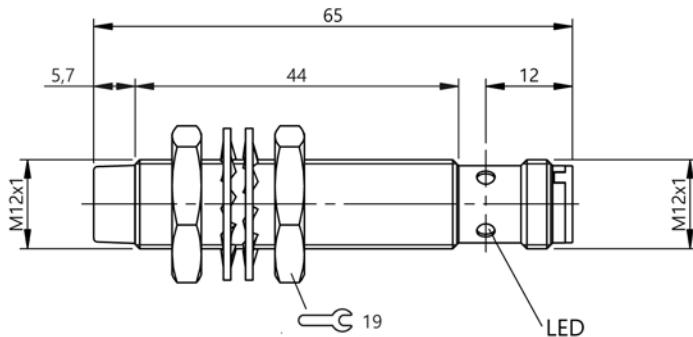


## Inductive Sensors

BES M12MI-PSC80E-S04G-W08

Order Code: BES05KW

**BALLUFF**

## Basic features

## Additional features

Factor 1  
Extended temperature range  
Housing resistant to weld spatter  
weld-immune (magnetic field 100kA/m)

## Approval/Conformity

CE

UKCA

WEEE

## Basic standard

IEC 60947-5-2

## Scope of delivery

2x nut M12x1

Toothed washer D13 (2x)

## Trademark

Factor 1

## Display/Operation

## Function indicator

yes

## Power indicator

no

## Electrical connection

Connection M12x1-Male, 3-pin, A-coded  
Electrical version 3-wire  
Polarity reversal protected yes  
Protection against device mix-ups yes  
Short-circuit protection yes

## Electrical data

Load capacitance max. at Ue	1 $\mu$ F
Min. operating current I <sub>m</sub>	0 mA
No-load current I <sub>o</sub> max., damped	27 mA
No-load current I <sub>o</sub> max., undamped	20 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Output resistance R <sub>a</sub>	100.0 kOhm
Protection class	II
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.	50 ms
Ripple max. (% of U <sub>e</sub> )	10 %
Switching frequency	2000 Hz
Utilization category	DC-13
Voltage drop static max.	1.5 V

## Environmental conditions

Ambient temperature	-40...85 °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	IP68, according to BWN Pr 20
Magnetic field immune	magnetic field immune (AC/DC)

## Functional safety

MTTF (40 °C) 365 a

## Interface

Switching output PNP normally open (NO)

#### Material

Housing material	Brass, PTFE coated
Material sensing surface	PBT

#### Mechanical data

Dimension	Ø 12 x 65 mm
Installation	non-flush
Mounting length	44 mm
Size	M12x1
Tightening torque	12 Nm

#### Remarks

The sensor is functional again after the overload has been eliminated.  
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

