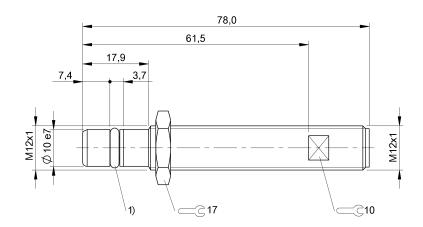
BES 516-100-S45-S4-D Order Code: BHS0001

BALLUFF



1) O-Ring with thrust ring



Bas	ic	fe	atu	res

Approval/Conformity	CE	
	UKCA	
	cULus	
	EAC	
	WEEE	
Basic standard	IEC 60947-5-2	

Display/Operation

Function indicator	no
Power indicator	no

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	10 mA
No-load current lo max., undamped	10 mA
Operating voltage Ub	1030 VDC
Output resistance Ra	33.0 kOhm + D
Rated insulation voltage Ui	75 V DC
Rated operating current le	200 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Ready delay tv max.	10 ms
Residual current Ir max.	20 μΑ
Ripple max. (% of Ue)	15 %
Switching frequency	1000 Hz
Utilization category	DC -13
Voltage drop static max.	1.5 V

Environmental conditions

Ambient temperature	-2580 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 g_n , 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP68
Functional safety	
MTTF (40 °C)	720 a

Inductive Sensors

BES 516-100-S45-S4-D Order Code: BHS0001



Interface

Switching output

PNP normally open/normally closed (NO/NC)

Material

Housing material

Material sensing surface
Support ring material

PTFE

Mechanical data

Dimension Ø 12 x 78 mm Installation for flush mounting M12x1 Mounting part Pressure rating max. 500 bar Pressure rating, note oil pressure rated 5.85 × 2.4 mm Sealing ring, size Size M12x1 **Tightening torque** 15 Nm ±10 %

Range/Distance

Assured operating distance Sa	1.2 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	1.5 mm
Real switching distance sr	1.5 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Remarks

The sensor is functional again after the overload has been eliminated. With connector, e.g. BKS-S 20-... total length = switch length +18 mm. 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

