

BALLUFF

High Pressure Rated Inductive Sensors

High-End for extreme applications

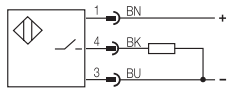


Inductive Sensors

Pressure Rated Inductive Sensors High-End for Extreme Applications

+120°C
+90°C
500 bar

Housing size	M12x1	M12x1	M12x1	M12x1
Mounting	flush	flush	flush	flush
Rated operating distance s_n	1.5 mm/2.5 mm	1.5 mm/2.5 mm	1.5 mm/2.5 mm	1.5 mm/2.5 mm
Assured operating distance s_a	0...1.2 mm/0...2 mm	0...1.2 mm/0...2 mm	0...1.2 mm/0...2 mm	0...1.2 mm/0...2 mm



PNP Normally-open

s_n 1.5 mm	s_a 1.2 mm	T_a 120 °C	BHS B135V-PSD15-S04	BHS B400V-PSD15-S04	BHS B249V-PSD15-S04	BHS B265V-PSD15-S04
s_n 2.5 mm	s_a 2 mm	T_a 90 °C	BHS B135V-PSD25-S04-003	BHS B400V-PSD25-S04-003	BHS B249V-PSD25-S04-003	BHS B265V-PSD25-S04-003

Rated operational voltage U_e	24 V DC	24 V DC	24 V DC	24 V DC
Supply voltage U_B	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
Voltage drop U_d at I_e	≤ 2.5 V	≤ 2.5 V	≤ 2.5 V	≤ 2.5 V
Rated insulation voltage U_i	75 V DC	75 V DC	75 V DC	75 V DC
Rated operational current I_e^*	200 mA	200 mA	200 mA	200 mA
No-load supply current I_0 max.	≤ 8 mA	≤ 8 mA	≤ 8 mA	≤ 8 mA
Off-state current I_r	≤ 10 µA	≤ 10 µA	≤ 10 µA	≤ 10 µA
Protected against polarity reversal	yes	yes	yes	yes
Short circuit protected	yes	yes	yes	yes
Load capacity	≤ 0.5 µF	≤ 0.5 µF	≤ 0.5 µF	≤ 0.5 µF
Repeat accuracy R	≤ 5 %	≤ 5 %	≤ 5 %	≤ 5 %
Ambient temperature range T_a	-25...+120/90 °C	-25...+120/90 °C	-25...+120/90 °C	-25...+120/90 °C
Frequency of operating cycles f	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Utilization category	DC 13	DC 13	DC 13	DC 13
Function indication	no	no	no	no
Degree of protection IEC 60529	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20
Housing material	stainless steel	stainless steel	stainless steel	stainless steel
Material of sensing face	ceramic	ceramic	ceramic	ceramic
Connection	connector	connector	connector	connector
Recommended connector	BKS-S 23/BKS-S 24/BKS-S144	BKS-S 23/BKS-S 24/BKS-S144	BKS-S 23/BKS-S 24/BKS-S144	BKS-S 23/BKS-S 24/BKS-S144
O-ring/replacement part number	7 x 2/123170	7 x 2/123170	7 x 2/123170	7 x 2/123170
Support ring/replacement part number	10 x 7 x 1.5/128168	10 x 7 x 1.5/128168	10 x 7 x 1.5/128168	10 x 7 x 1.5/128168
High pressure rated up to	500 bar	500 bar	500 bar	500 bar

Temperature rated up to +120 °C

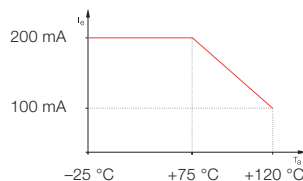
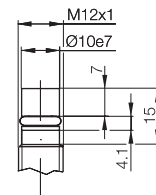
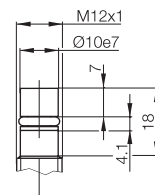
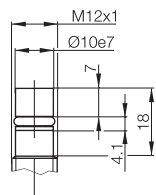
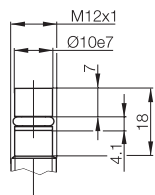
- Especially suitable for modern high performance hydraulic systems
- For new hydraulic fluids that are allowed to get hot
- For hydraulic cylinders on high-temperature injection molds

Switching distance 2.5 mm

- Even more function reserve
- For compensating cylinder tolerances

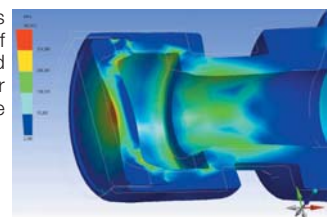
Pressure rated up to 500 bar

- Just like our classic high pressure switches



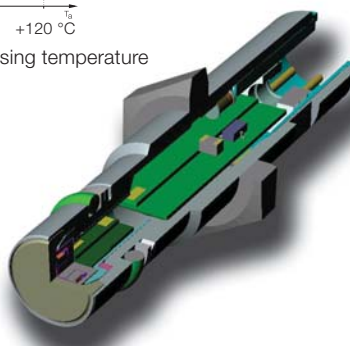
*Current falls with increasing temperature

Stress analysis (FEM method) of housing and ceramic cap under high pressure



For more sensors see main catalog "The Sensor Program" on CD-ROM or online!

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