

# BALLUFF

## Magneto-inductive Position Sensor Micro-BIL

... analog position feedback for miniature grippers

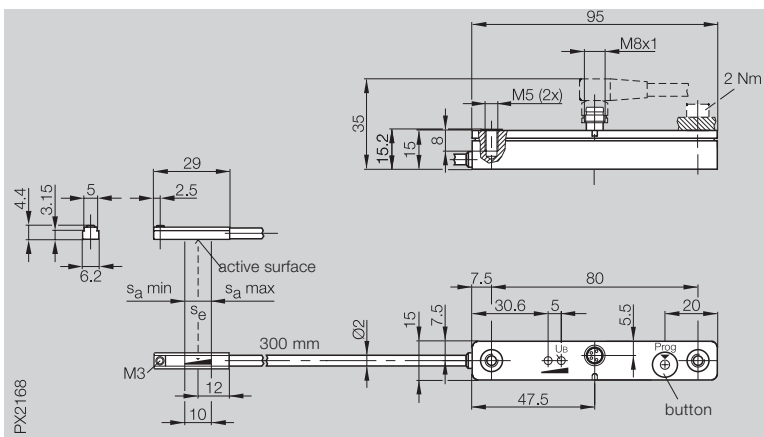


## Micro-BIL for analog position sensing

Output signal $U_a$
Output signal $I_a$
Working range $s_a$
Linear range $s_l$

**voltage 0...10 V or  
current 4...20 mA**

0...10 mm
0...10 mm



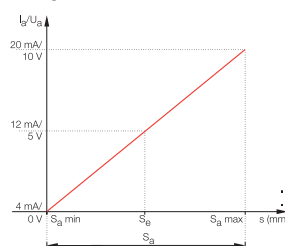
Ordering code	BIL ED0-B010P-02/30-S75
Field strength axial $H_n$	10 kA/m typical
-3dB width of axial field distribution, typical (axial field strength typ. – parallel to active surface)	2.5 mm
Rated operational voltage $U_e$	24 V DC
Supply voltage $U_B$	at $U_a$ 15...30 V DC, at $I_a$ 10...30 V DC
Ripple	$\leq 10\%$ of $U_e$
Rated insulation voltage $U_i$	75 V DC
Rated sensing distance $s_e$	5 mm
Load resistance $R_L$	at $U_a \geq 2\text{ k}\Omega$ , at $I_a \leq 500\text{ }\mu\text{A}$
No-load supply current $I_0$ at $U_e$	$\leq 30\text{ }\mu\text{A}$
Protected against polarity reversal	yes
Short circuit protected	yes
Ambient temperature range $T_a$	-10...+70 °C
Repeat accuracy $R_{BWN}$	$\leq \pm 30\text{ }\mu\text{m}$
Non-linearity	$\leq \pm 0.3\text{ mm}$
Temperature coefficient TK	+4 $\mu\text{m/K}$
in the optimal range	+2 $\mu\text{m/K}$
from 10...+50 °C	+10 $\mu\text{m/K}$
Supply voltage indication	yes
Programming indication	yes
Degree of protection per IEC 60529	IP 67
Housing material	PA fiberglass reinforced
Connection	connector
Recommended connector	BKS-S 74/BKS-S 75



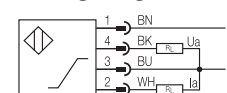
**Micro-BIL** is the solution for continuous position sensing on pneumatic miniature grippers with T-slot. The analog output signal allows you to sense end-of-travel and intermediate positions of gripper jaws absolutely and without contact.

To use the Micro-BIL a magnet is installed in the gripper. A button is provided for calibrating to various magnetic field strengths. The technical data refer to reference measurements. Different grippers with differing magnetic field strengths may affect the technical data.

### Output curve



### Wiring diagram



Connect to either voltage or current output.



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