

**BALLUFF**

**NEW**  
Magnetoinductive  
Technology

# BIL

**Non-contact Analog  
Position Sensor**

absolute linear  
position feedback  
with magnetic targets



# Non-contact Analog Position Sensor

# innovative magnetoinductive technology

## Analog Position Sensor BIL

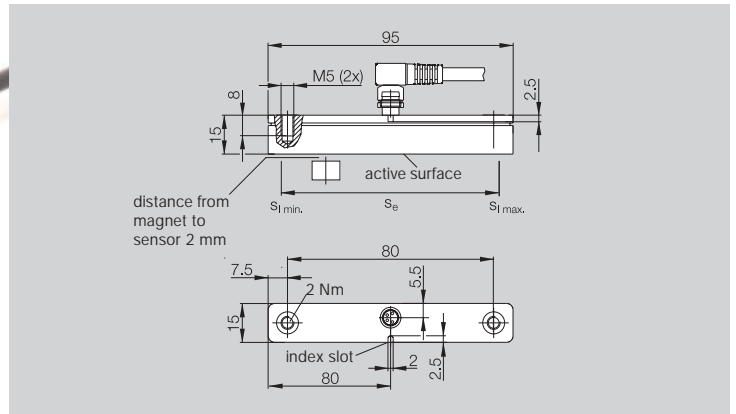
Balluff's innovative magnetoinductive sensing technology is the best choice for short displacement linear position feedback devices.

Balluff's BIL magnetoinductive linear position sensor is mini proportioned and optimized to provide highly accurate, non-contact continuous positioning information for linear displacements up to 60 mm in length. The versatile BIL allows existing motion control systems to be affordably upgraded from end-of-stroke to the flexibility and precision of continuous absolute positioning feedback.

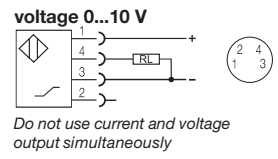
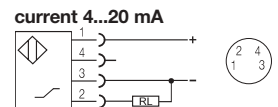
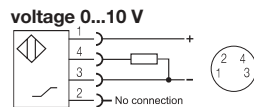
- Innovative, cost-effective magnetoinductive analog technology involving a specially shaped triangular coil and an associated magnet provides accurate, continuous positioning information.
- Temperature-compensated analog output signal delivers linearized stroke information up to 50 mm; non-linearized stroke information up to 60 mm. Voltage and current-output versions available.

- Only 95 mm long – fits in tight places other sensors can't.
- Ideal replacement for wear-prone contact devices such as potentiometers – no moving parts other than the magnet.
- Robust design – sensor head and processing elements are potted, providing high resistance to shock, vibration, and moisture.
- Perfect for harsh industrial applications – resistant to common contaminants that would foul potentiometers or photoelectric sensors.

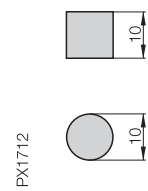
Series	BIL
Output Signal	0...10 V current 4...20 mA voltage 0...10 V
Working range $s_a$	0...60 mm
Linear range $s_l$	5...55 mm



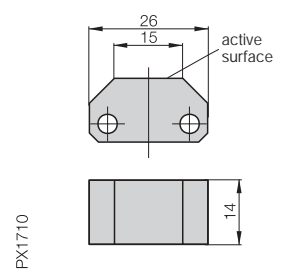
Ordering Code	BIL AD0-P060A-01-S75	BIL ED0-P060A-01-S75
Rated operational voltage $U_e$	24 Vdc	
Supply voltage $U_B$	15...30 Vdc	10...30 Vdc / 15...30 Vdc
Load resistance $R_L$	$\geq 2 \text{ k}\Omega$	$\leq 500 \Omega / \geq 2 \text{ k}\Omega$
No-load supply current $I_0$ at $U_e$	$\leq 35 \text{ mA}$	$\leq 30 \text{ mA}$
Protected against polarity reversal	yes	
Ambient temperature range $T_a$	$-10...+75 \text{ }^\circ\text{C}$	
Housing material	PA 6.6	
Environmental protection	IP 67	
Shock	Half-sinus, 30g, 11ms	
Vibration	55 Hz, 1mm amplitude, axis x-y-z 30 minutes	
Non-linearity (5...55 mm)	$\leq 1\%$ of full scale	
Repeatability	$\leq 0.1\%$ of position	
Temperature drift ( $+10\text{ }^\circ\text{C}...+75\text{ }^\circ\text{C}$ )	$\leq 2\%$ of full scale	
Recommended connector	C75 ANL or C75 BNL	



Position marker*	
Housing size	$\varnothing 10 \times 10$



Housing size	$26 \times 14 \times 14$
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Ordering code	BIL 000-MH-A	BIL 001-MH-A
Housing material	hard ferrite	PA 6.6-GF30

\* Specifications valid only in combination with these markers.

**BALLUFF**  
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