

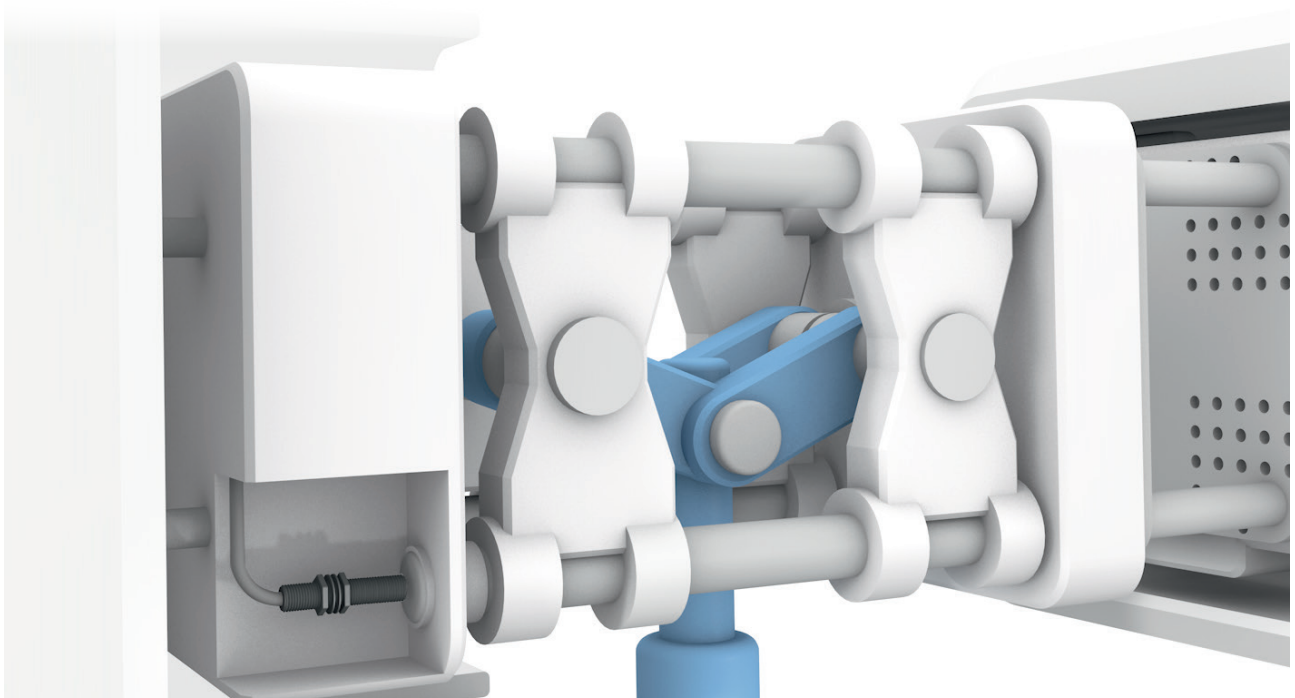
The next stage of function security achieved

## DISTANCE MEASUREMENT: M12 INDUCTIVE ANALOG SENSORS

Reliable and wear-free distance measurement is ensured by contact-free sensor technology. The BAW analog sensors allow you to go to the next step. They no longer only check the presence of metallic objects, but rather various target shapes, positions and distances reliably. Their analog and linear characteristics allow the new BAW to be used for clamping force measurement, measuring imbalances or implementing a soft-stop in the cylinder. The new sensor family features long service life. The convenient teach function ensures quick programming during initial installation and decreased downtime during sensor replacement due to the adjustable linear range.

### Features

- High linearity
- Long measuring range
- Low temperature drift
- Adjustable linearity area
- Analog (voltage and current) and IO-Link version



## INDUCTIVE ANALOG SENSORS



	BAW004K	BAW0055	BAW0056	
Series	M12×1	M12×1	M12×1	
Installation type (observe instructions in Basic Information chapter)	Flush	Flush	Non-flush	
Output signal	0...10 V	4...20 mA	IO-Link	
Linear range $s_l$	0.2...3.5 mm	0.2...3.5 mm	0.2...7 mm	
Supply voltage $U_S$	18...30 V DC	18...30 V DC	18...30 V DC	
Effective distance $s_e$	1.85 mm	1.85 mm	3.6 mm	
Polarity reversal protected/transposition protected/short-circuit protected	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	
Settings (Teach-in)	Measuring range	Measuring range	Measuring range	
Adjustment display (LED)	Yes	Yes	Yes	
Ambient temperature $T_a$	-40...+80 °C	-40...+80 °C	-25...+70 °C	
Repeat accuracy $R_{BWN}$	±7 µm	±7 µm	±7 µm	
Non-linearity max.	±35 µm	±35 µm	±70 µm	
Limit frequency (-3 dB)	1000 Hz	1000 Hz	1000 Hz	
Response time	0.2 ms	0.2 ms	2 ms	
Degree of protection as per IEC 60529	IP67	IP67	IP67	
Approvals	CE, cULus, EAC	CE, cULus, EAC	CE, cULus, EAC	
Material	Housing	Brass, coated	Brass, coated	Brass, coated
	Sensing surface	LCP	LCP	PBT
Connection	M12 connector, 4-pin	M12 connector, 4-pin	M12 connector, 4-pin	

## ACCESSORIES



	BAE00MN	BAE00MP	BAM00C0	BAM0218
Type	Teach adapter For BAW sensors	Teach adapter For BAW sensors	Mounting brackets For sensors and clamps M12	Mounting cuff For sensors Ø 12 mm and M12
Teach-in	PIN1 to PIN2	PIN1 to PIN4		
Material	PUR	PUR	Aluminium	Aluminium

## CONNECTORS



	BCC030U	BCC030L	BCC030Z	BCC031H
Type	M12 female, 3-pin (straight) with 5 m cable PUR shielded (black)	M12 female, 3-pin (straight) with 5 m cable PUR (black)	M12 female, 3-pin (straight) with 5 m cable PUR shielded (black)	M12 female, 3-pin (right- angle) with 5 m cable PUR shielded (black)