

## Continuous linear feedback – measure cylinder position continuously and without contact

# BMP MAGNETIC POSITION SENSORS

The new IO-Link and analog all-in-one BMP magnetic position sensors overcome the limitations of discrete pneumatic cylinder switches by providing continuous position information over the entire cylinder stroke. They provide continuous linear feedback – detecting and measuring the position of pneumatic or hydraulic cylinder rods and actuators through (non-ferrous) housing walls, over the entire measurement range and without contact. The BMP sensors can be used in a wide range of industries and are ideal for Industry 4.0 as they improve ease of automatic size change and allow for condition monitoring and predictive maintenance.

This BMP magnetic position sensors calculate the actual target position of the magnet and output it as a position-dependent analog or IO-Link signal. They deliver signal stability and reliability, and the sensors' compact size allows for integration

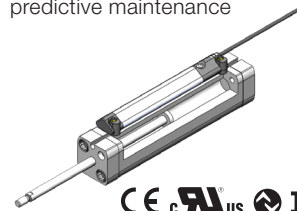
in very limited installation spaces. Analog current, analog voltage, and IO-Link are provided in this single sensor.

The BMP magnetic position sensors allow efficient and flexible settings, monitoring, and advanced diagnostics. The IO-Link and analog all-in-one options give the full suite of IO-Link functionality including integrated switch points, internal sensor temperature, fast cycle time, measurement value, and scaling factor and status.

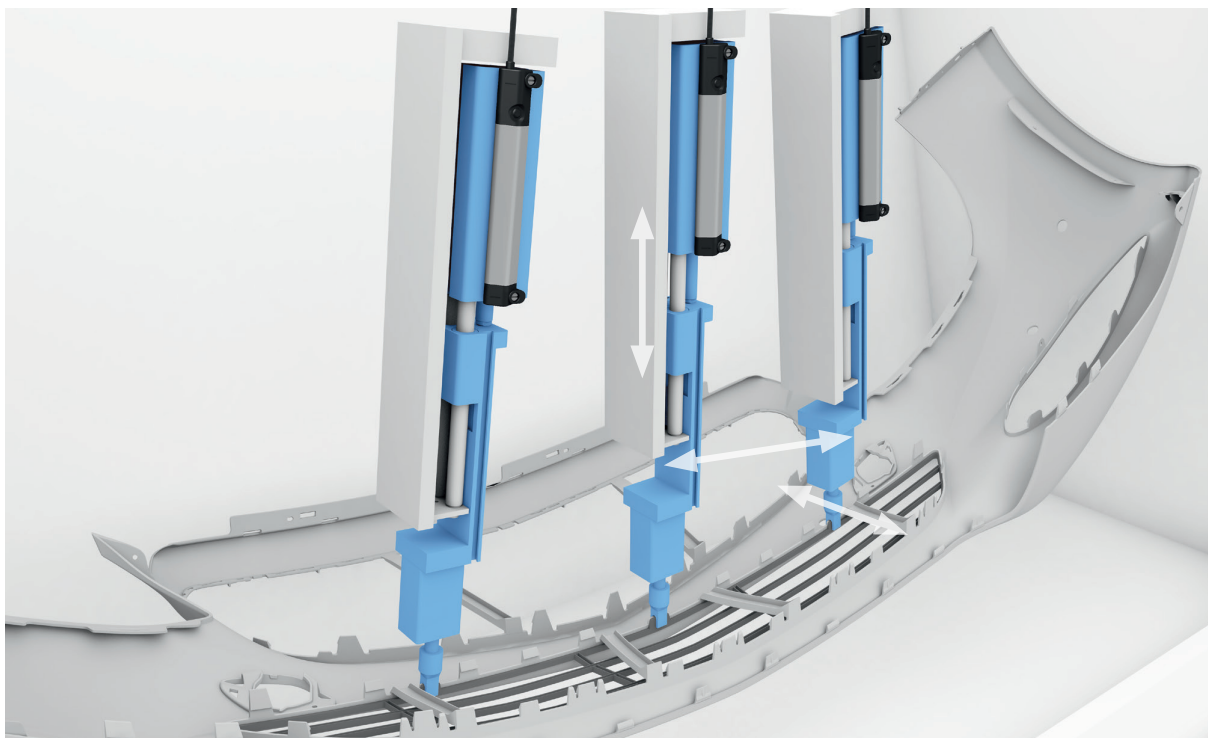
This BMP magnetic position sensors are highly adaptable. The compact form factor can be easily integrated and mounted onto a wide range of cylinders including C-Slot, T-Slot, round, or tie-rod, thanks to a universal housing with adapters. This BMP sensor is available in 8 different measurement ranges from 32 to 256 mm, in 32 mm increments. You can customize the measuring range along the entire stroke using the teach function.

### Features

- Modular concept for greater flexibility – measuring range up to 256 mm
- Continuous monitoring of piston position in tight spaces with analog voltage and current output as well as IO-Link interface
- Reliable, accurate, and repeatable absolute position feedback
- High process security – low temperature drift and high quality electromagnetic compatibility
- Ideal for Industry 4.0 – automatic size change, condition monitoring, and predictive maintenance



CE cRU<sup>us</sup> IO-Link



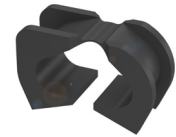
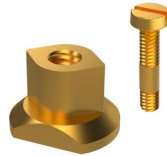
## BMP MAGNETIC FIELD POSITIONING SENSORS



	BMP000L	BMP000P	BMP000W
Measuring Range	32 mm *	128 mm *	256 mm *
Dimension (l x w x h)	17.5 x 9.6 x 42 mm	17.5 x 9.6 x 138 mm	17.5 x 9.6 x 266 mm
Analog output	Analog, voltage/Analog, current selectable 0...10 V/4...20 mA	Analog, voltage/Analog, current selectable 0...10 V/4...20 mA	Analog, voltage/Analog, current selectable 0...10 V/4...20 mA
Interface	IO-Link 1.1	IO-Link 1.1	IO-Link 1.1
Resolution	≤ 1 μm (IO-Link), 12 Bit (Analog)	≤ 1 μm (IO-Link), 12 Bit (Analog)	≤ 1 μm (IO-Link), 12 Bit (Analog)
Repeat accuracy	± 100 μm	± 100 μm	± 100 μm
Operating voltage U <sub>b</sub>	15...30 VDC	15...30 VDC	15...30 VDC
Approval/Conformity	CE, cURus, IO-Link, WEEE	CE, cURus, IO-Link, WEEE	CE, cURus, IO-Link, WEEE
Housing material	PA 12 Aluminum	PA 12 Aluminum	PA 12 Aluminum
Ambient temperature	-25...+85 °C	-25...+85 °C	-25...85 °C
Protection degree	IP67	IP67	IP67
Connection Type	Cable with connector, M12x 1-Male, 4-pole, 0.5 m, PUR *	Cable with connector, M12x 1-Male, 4-pole, 0.5 m, PUR *	Cable with connector, M12x 1-Male, 4-pole, 0.5 m, PUR *

\* Stroke lengths from 32mm to 256 mm, in 32 mm increments, are available

## ACCESSORIES



	BAM0383	BAM0382	BAM0381	BAM037Z
Use	Mounting set for T-slot	Mounting set for C-slot	Mounting screws	Holder for round cylinders

## CONNECTORS



	BCC032K	BCC05FF	BCC05MC	BCC0C00
2 M CABLE	BCC032K	BCC05FF	BCC05MC	BCC0C00
5 M CABLE	BCC032L	BCC05FJ	BCC05ME	BCC0C02
10 M CABLE	BCC032M	BCC05FK	BCC05N1	BCC0C03
Description	M12 straight PUR shielded black, single ended	M12 straight PVC unshielded yellow, single ended	M12 straight PVC unshielded yellow, double ended	M12 straight PUR shielded black, double ended

\* Additional connector options include M8 connector, 4-pin, and cable with flying leads (no connector)