

## Position feedback in the tightest spaces

# THE NEW BMP02 MAGNETIC FIELD POSITIONING SYSTEMS

With the BMP series, Balluff has a smart position system in its product range that delivers an absolute position signal for the stroke path of a piston and also provides information on the sensor status and the current ambient conditions via IO-Link.

With the BMP02, we are expanding our portfolio to include a magnetic field position measuring system whose size makes it particularly shines when used in pneumatics. This is because we have shrunk it down to be an ideal fit in applications that offer little space for a sensor, e.g. in factory automation, material handling or robotics.

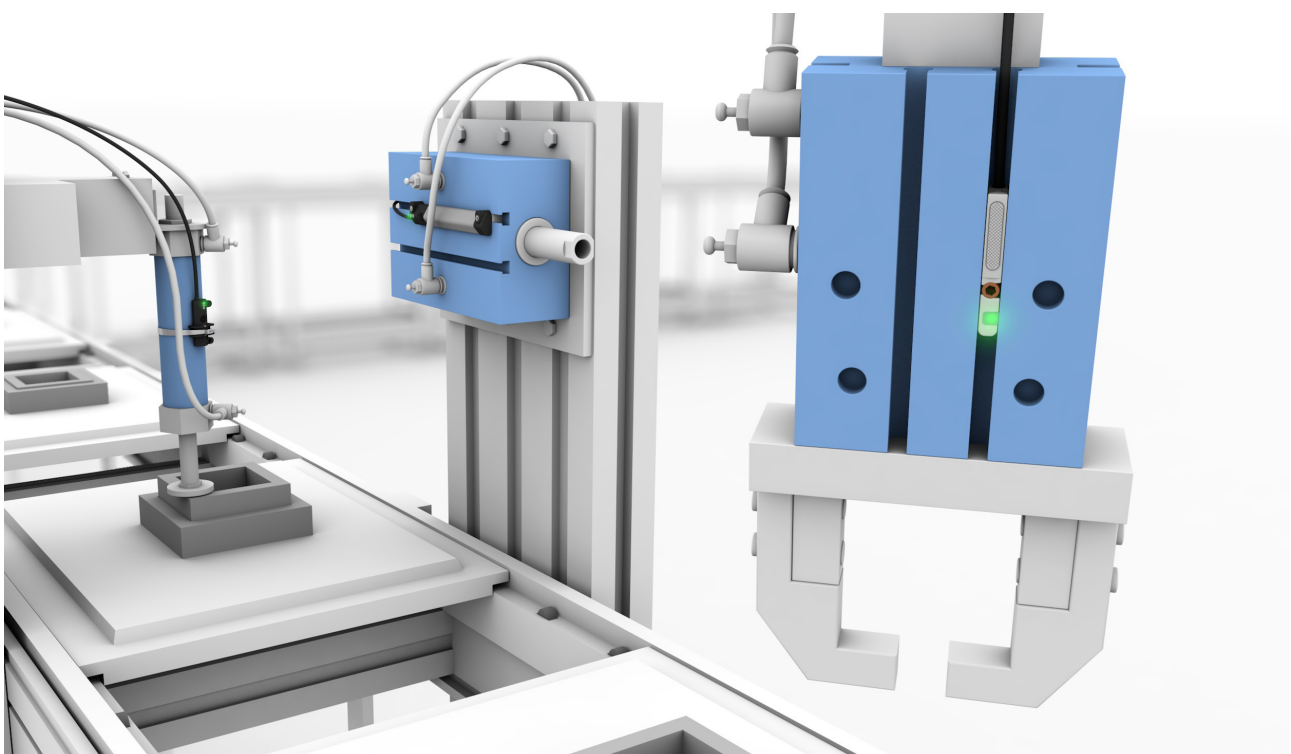
As with the BMP, the BMP02 provides continuous and precise contactless position feedback – the basis for high process reliability and automation quality. Due to the small form factor and the simple parameterization of the system, commissioning and adjustment in particular have been significantly improved. Condition monitoring, an intelligent stroke profile and the measuring sensor profile also ensure the BMP02 is smart and powerful. This way, you achieve the dynamics, precision and flexibility that the smart factory with its complex production lines requires.

### Features

- Reliable and wear-free position feedback in confined spaces
- Measuring range up to 22 mm
- Axial and radial magnetic polarization
- Application-relevant linearity and repeatability
- Low temperature drift and very good electromagnetic compatibility
- Ideal for condition monitoring, predictive maintenance and format change thanks to IO-Link



CE UK CA IO-Link



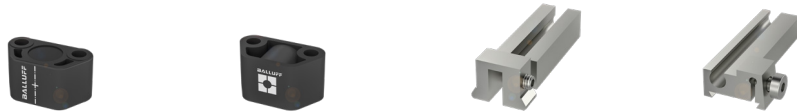
Detecting a gripper position with the new BMP02 magnetic field position measuring system.

BMP MAGNETIC  
FIELD POSITIONING  
SYSTEMS



|                                       |  |
|---------------------------------------|--|
| ORDERING EXAMPLE                      | BMP 02 - <b>a b c d d e f g</b> - <b>h h h h</b> - <b>i i</b> - <b>k</b> - <b>l l l l</b> - <b>m m m</b> |
| Model                                 | BMP 02 plastic housing, (polypropylen), 22.5 × 2.9 × 7 mm  |
| Interface, analog <b>(a)</b>          | Z = no analog output, A = 0...10 V   |
| Intelligent interface <b>(b)</b>      | P = IO-Link interface for parametrization and measurement value output                                   |
| Resolution analog signal <b>(c)</b>   | 1 = 12 bit   |
| Switching output <b>(dd)</b>          | PP = PNP, NO/NC programmable, NP = NPN, NO/NC programmable   |
| Output characteristics <b>(e)</b>     | 2 = switchable, rising is default ex works, 3 = switchable, falling is default ex works                  |
| Switching output, number <b>(f)</b>   | 2 = 2 programmable switching output  |
| Adjustment of working area <b>(g)</b> | A = Null point and end point of characteristics, resp. switching points via teach-in button or IO-Link   |
| Working area <b>(hhhh)</b>            | 0022 = 22 mm   |
| Mounting <b>(ii)</b>                  | 06 = via clamping bars for T-slot, 07= via clamping bars for C-slot                                      |
| Connection <b>(k)</b>                 | P = Polyurethane (PUR)   |
| Cable length <b>(llll)</b>            | 00,3 = 0.3 m, 02 = 2 m, 05 = 5 m, 10 = 10 m  |
| Connector <b>(mmm)</b>                | S4 = M12 connector, 4-pin, S75 = M8 connector, 4-pin   |

ACCESSORIES



|             | BAM039T                | BAM0416                 | BAM0474   | BAM0475   |
|-------------|------------------------|-------------------------|---|---|
| Description | Position sensor, axial | Position sensor, radial | Bracket for dovetail groove for BMP 02 magnetic field position measuring system | Bracket for dovetail rail for BMP 02 magnetic field position measuring system |

CONNECTIVITY



|              | BCC02N2                               | BCC02TF                                 | BCC032F                               | BCC039H                                 |
|--------------|---------------------------------------|---|---------------------------------------|---|
| Connection 1 | M8 female, straight, 4-pin, A-coded   | M8 female, straight, 4-pin, A-coded     | M12 female, straight, 5-pin, A-coded  | M12 female, straight, 5-pin, A-coded    |
| Connection 2 |                                       | M8 male, straight, 4-pin, A-coded       |                                       | M12 male, straight, 4-pin, A-coded      |
| Cable        | PUR black, 2 m, drag chain compatible | PUR black, 0.3 m, drag chain compatible | PUR black, 2 m, drag chain compatible | PUR black, 0.3 m, drag chain compatible |