Use the position transmitter SMAT to open up new areas of applications for pneumatic cylinders.

The new SMAT continuously monitors the position of a cylinder piston within a range of 50 mm. It has an analogue output with an output signal proportional to the piston position. The integrated OOR (out of range) function indicates when the piston is outside the detection range. The transmitter can be connected directly to an analogue input, for evaluation of the 0 ... 10 V or 0 ... 20 mA signal.

- Process monitoring/measurement: Quality, wear, process feedback
- Object detection: Orientation, position, good/bad separation
- Object presence detection: Clamping and pressing operations
Position transmitter SMAT

The advantages of SMAT:
- Robust: Contactless measuring principle = Wear-free sensing
- Fast installation: Insert the transmitter into the slot; tighten the Allen screw and you’re ready
- Reliability: Measuring range always 50 mm, independent of cylinder; reproducibility 0.1 mm
- Flexible: The SMAT can be installed in the slot either way round
- Universal: Can be used with virtually all Festo cylinders with a T-slot
- Secure: “Power on” and “Out of range” display via 2 LEDs on the unit
- Standardised: 0 ... 10 V, 0 ... 20 mA analogue output
- Compact: Direct mounting in T-slot without accessories

Examples of typical applications

Object detection
- Press fitting
- Clamping
- Orientation/position detection
- "Good/bad" workpiece separation
- Workpiece changing

Process monitoring
- Sheet-metal handling/production
- Wear monitoring
- Quality checking

Technical data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Type</td>
<td>SMAT-8E-S50-IU-M8, SMAT-8E-S50-IU-E-0,3-M8D</td>
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<tr>
<td>Voltage output</td>
<td>0 ... 10 V, integrated “Out of range” detection</td>
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<tr>
<td>Current output</td>
<td>0 ... 20 mA, integrated “Out of range” detection</td>
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<tr>
<td>Operating voltage range</td>
<td>15 ... 30 V DC</td>
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<tr>
<td>Electrical connection</td>
<td>Plug M8x1, 4-pin</td>
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<tr>
<td>Measuring range</td>
<td>50 ±2 mm</td>
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<td>Reproducibility</td>
<td>±0.064 mm</td>
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<td>Sampling rate</td>
<td>3 ms</td>
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<tr>
<td>Mounting</td>
<td>1x Allen screw 1.5 mm</td>
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</tbody>
</table>

Position transmitter SMAT
Simple compact solution.
Robust, thanks to contactless measuring principle.

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