



## Magnetic Cylinder Sensors Analog positioning sensors

MPS-224TLTQ0



**Model Name** > [MPS-224TLTQ0](#)  
**Part No.** > [1062522](#)



**At a glance**

- Magnetic position sensor for pneumatic cylinders with T-slot
- Output signal: IO-Link
- Superior precision: 0.05 mm resolution, 0.1 mm repeatability, 0.3 mm linearity, 1 ms measurement rate
- Electric setting of zero point and end point via teach-in button (optional)
- Various lengths available from 32 - 256 mm
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

**Your benefits**

- Maximum flexibility with several different measuring ranges from 32 to 256 mm
- Easy analog output setup: adjustable zero and end point can be taught via single button
- Drop-in T-slot mounting from above makes assembly easy
- Selectable installation direction to optimize cabling
- Efficient measurement of stroke due to minimal blind zones, increasing machine throughput
- Simple commissioning due to "in-range" indicator
- IO-Link provides easy data access from the PLC
- Quick and easy configuration



**Features**

Output function:	IO-Link
Electrical wiring:	DC 4-wire
Teach-in:	1
Cylinder type:	T-slot
Cylinder types with adapter:	Roundbody cylinder SMC rail cylinder CDQ2 SMC rail cylinder ECDQ2 Cylinders with dovetail slots
Measurement range:	224 mm <sup>1)</sup>
Housing length:	237 mm
Enclosure rating:	IP 67 <sup>2)</sup>
IO-Link functions:	Standard functions

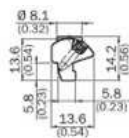
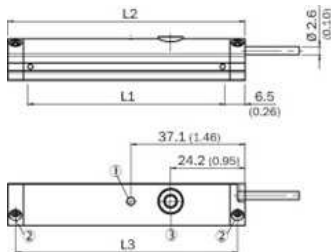
<sup>1)</sup> ± 1 mm <sup>2)</sup> According to EN 60529

## Mechanics/electronics

Connection type:	Cable with connector M12, 4-pin, 0.3 m <sup>1)</sup>
Supply voltage:	15 V DC ... 30 V DC
EMC:	According to EN 60947-5-2 <sup>2)</sup>
Load resistance, max.:	500 Ω <sup>3)</sup>
Min. load resistance:	2 kΩ <sup>4)</sup>
Cable material:	PUR
Conductor cross-section:	0.14 mm <sup>2</sup>
Reverse polarity protection:	✓
Short-circuit protection:	✓
Housing material:	Plastic
IO-Link:	✓
Output indicator:	✓
Linearity typ.:	0.3 mm
Resolution typ.:	0.03 % FSR (max. ≥ 0.05 mm) <sup>5)</sup>
Repeat accuracy typ.:	0.06 % FSR (≥ 0.1 mm) <sup>6)</sup>
Shock and vibration resistance:	30 g, 11 ms/10 ... 55 Hz, 1 mm
Ambient temperature operation:	-20 °C ... +70 °C
Protection class:	III
Magnetic field sensitivity, typ.:	3 mT
Sampling rate typ.:	1 ms

<sup>1)</sup> Do not bend below 0 °C <sup>2)</sup> The analog measured value can deviate under transient conditions <sup>3)</sup> Power output <sup>4)</sup> Voltage output <sup>5) 6)</sup> FSR: Full Scale Range; max. measuring range

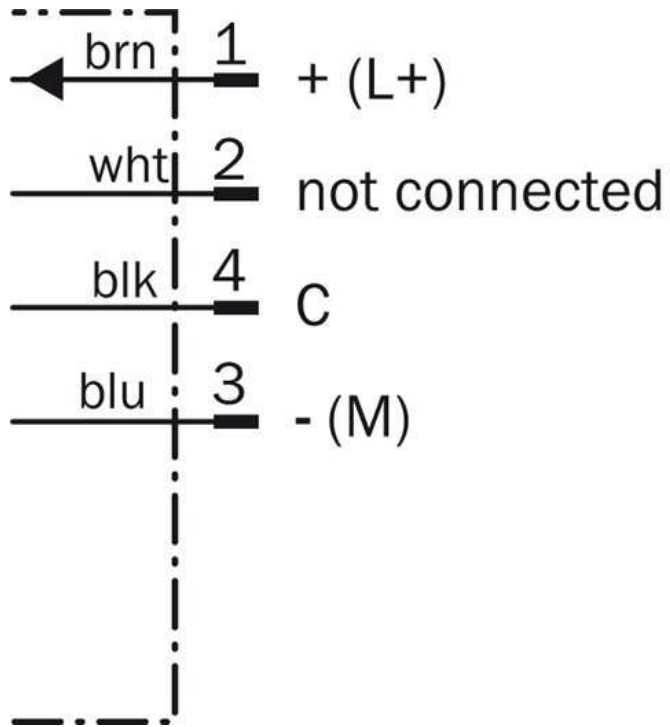
## Dimensional drawing



	Total length (L1) mm	Measuring range (L2) mm	Distance mounting screws (L3) mm
<b>MPS-32</b>	45	32	40
<b>MPS-64</b>	77	64	72
<b>MPS-96</b>	109	96	104
<b>MPS-128</b>	141	128	136
<b>MPS-160</b>	173	160	168
<b>MPS-192</b>	205	192	200
<b>MPS-224</b>	237	224	232
<b>MPS-256</b>	269	256	264

- |1| Function signal indicator
- |2| Fixing screw
- |3| Teach-in button

Connection diagram



Connection type



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