



Magnetic Cylinder Sensors Analog positioning sensors

MPS-256TLTQ0



Model Name > [MPS-256TLTQ0](#)
Part No. > [1062520](#)



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:	256 mm ¹⁾
Housing length:	269 mm
Enclosure rating:	IP 67 ²⁾
IO-Link functions:	Standard functions

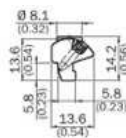
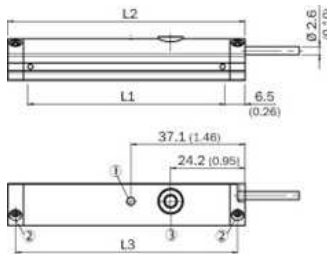
¹⁾ ± 1 mm ²⁾ According to EN 60529

Mechanics/electronics

Connection type:	Cable with connector M12, 4-pin, 0.3 m ¹⁾
Supply voltage:	15 V DC ... 30 V DC
EMC:	According to EN 60947-5-2 ²⁾
Load resistance, max.:	500 Ω ³⁾
Min. load resistance:	2 k Ω ⁴⁾
Cable material:	PUR
Conductor cross-section:	0.14 mm ²
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) ⁵⁾
Repeat accuracy typ:	0.06 % FSR (≥ 0.1 mm) ⁶⁾
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

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

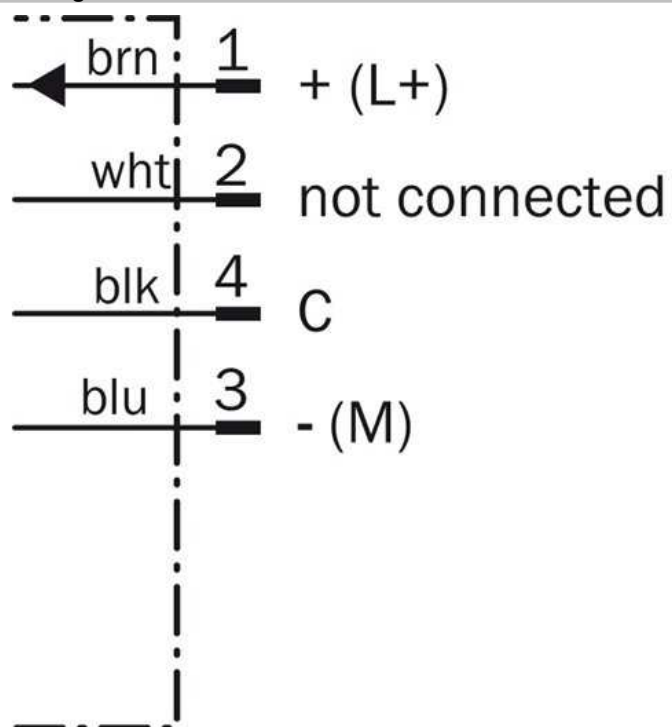
Dimensional drawing



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

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

Connection diagram



Connection type



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