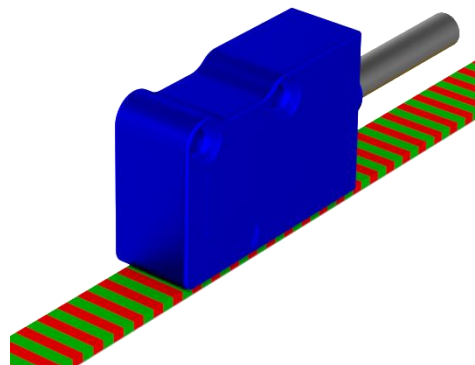


Datasheet

- Magnetic sensor for very small measurements
- Resolutions up to 0.1 μm
- Mounting of the magnetic sensor through wide alignment tolerances
- As a cable standard with low friction coefficient and oil resistant
- Protected against inversion of power supply polarity
- IP-Rating: IP67



Mechanical Data

Materia	Housing Cable ¹⁾ Power Supply Signals Length Bending Radius	Aluminium; die-cast PVC, Ø6,1 (=8-wire) 0,35 mm ² 0,14 mm ² 2 m (standard) > 60 mm
Weight		40 g
Pole Pitch		1+1 mm
Resolution		< 0,1 μm ²⁾
Accuracy		$\pm 10 \mu\text{m}$
Repeatability		± 1 Increment
Distance	Sensor-Magnetic Scale	0,1 ... 0,4 mm (with magnetic scale WM1)
Reference Index		C = at constant distance (1 mm)
Traversing Speed		< 12 m/s
Relative Humidity		100%
Operating Temperature		0 °C ... +50 °C
Storage Temperature		-20 °C ... +80 °C

¹⁾ PUR cable, cable with reduced section or other length on request

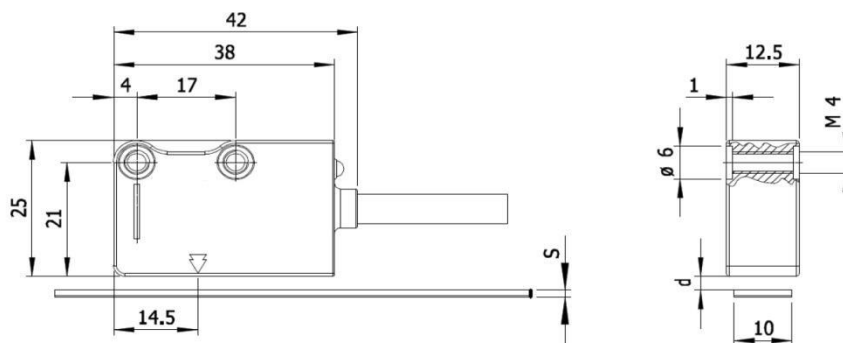
²⁾ Depending on CNC division factor

Electrical Data

Power Supply		5 VDC ... 28 VDC $\pm 5\%$
Power Consumption	unload load	< 90 mA < 110 mA (with 5 V and R = 120 Ω) < 70 mA (with 5 V and R = 1,2 k Ω)
Frequency		< 12 kHz
Output		sinus wave 1 Vpp
Amplitude	A and B I ₀	0,6 Vpp ... 1,2 Vpp 0,25 V ... 0,6 V usable component
Phase Displacement		90° $\pm$ 10° electrical
Vibration	EN 60068-2-6	300 m/s ² [55 ... 2.000 Hz]
Shock	EN 60068-2-27	1.000 m/s ² (11 ms)
IP-Rating		IP67

Datasheet

Dimensions



Value in mm	WM1	WM1 + DB01	WM1 + PS1
s	1,3	1,6	2,1
d IMV1	0,1 ... 0,5	-	-

s = width

d = distance to be observed between the sensor and the surface of the magnetic tape
(or rather cover tape/ Support)

Ordering Example

Type IMV1 - C - 528V - S - M02/N - SC

Resolution

1 = <0,1 µm

Reference Index

C = at constant pitch (1 mm)

Power Supply

528V = 5 VDC ... 28 VDC

Output Circuit

S = sinus wave, 1Vpp

Cable^{1) 2)}

M01/N = 1m

M02/N = 2m

M03/N = 3m

Connection

SC = open Cable

C3 = C3

C4 = C4

¹⁾ Different lengths are available in the following version

L_{MAX} = 10 m sensor cable

L_{MAX} = 100 m sensor cable (2m) + extension cable (power supply 0.5 mm²)

²⁾ With a traversing speed about 1 m / s, a cable for continuous movements recommended