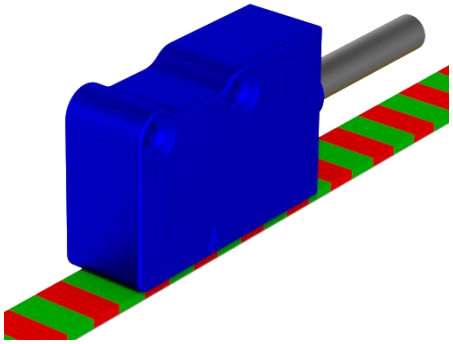
Datasheet

- Magnetic sensor for very small measurements
- Resolutions up to 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	5+5 mm
Resolution	< 1 µm[2)]
Accuracy	±30 µm
Repeatability	± 1 Increment
Sensor-magnetic scale distance	0,3 … 3 mm (with magnetic scale WM5)
Reference Index	C = at constant distance (5 mm) E = external
Traversing Speed	< 12 m/s
Relative Humidity	100%
Operating Temperature	0 °C … +50 °C
Storage Temperature	-20 °C … +80 °C

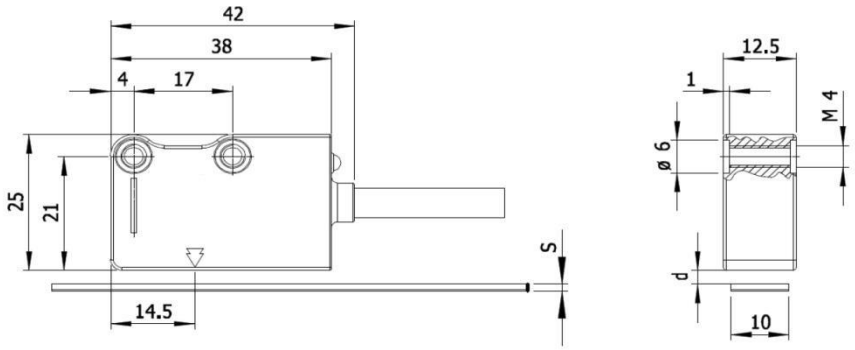
[1)] PUR cable, cable with reduced section or other length on request
[2)] Depending on CNC division factor

Electrical Data

Power Supply		5 VDC … 28 VDC ±5%
Power Consumption unload load		 < 90 mA < 110 mA (with 5 V and R = 120 Ω) < 70 mA (with 28 V and R = 1,2 kΩ)
Frequency		< 2,4 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° ± 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

Willtec Messtechnik ek • Eschenweg 4 • 79232 March-Hugstetten
Fon:07665/93465-0 • Fax:07665/93465-22 • Email: info@willtec.de • Internet: www.willtec.de

Dimensions



Value in mm	**WM5**	**WM5 + DB50**	**WM5 + PS1**
s	1,3	1,6	2,1
d IMV5	0,3 … 3	< 2,7	< 022

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 **IMV5 - C - 528V - S - M01/N - SC**

Resolution
5 = <1 µm

Index- Pulse periodic
C = at constant pitch (5 mm)
E = external

Output Voltage
528V = 5 VDC … 28 VDC

Output Circuit
S = sinus wave, 1Vpp

Cable
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 mm^2)
[2] With a traversing speed about 1 m / s, a cable for continuous movements recommended

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