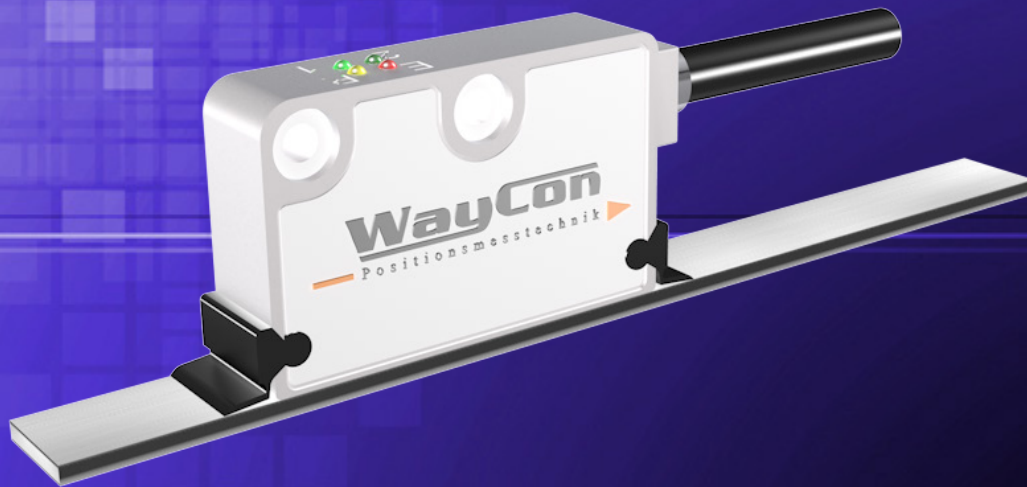


MAGNETIC SCALE



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Series MXI51

Key-Features:

- Measurement ranges up to 100 m
- HTL or TTL output
- Unaffected by dust, debris or liquids, IP67
- Hi-flex cable
- High performance encoder for linear motors
- Operating temperature range from -25 °C to +85 °C

TECHNICAL DATA

Sensor MXI51

Measurement range	[m]	max. 99.99 (tape length -10 mm)			
Resolution	[μ m]	5	10	25	50
Sensor linearity max.	[μ m]	± 15		± 25	± 50
Repeat linearity		± 1 increment			
Output circuits		Line Driver, Push-Pull			
Output signals		AB0, /AB0			
Edge distance	[μ s]	0.3			
Counting frequency max.	[kHz]	3333			
Power supply	[VDC]	+5 \pm 5 %, 10...30			
Power consumption max.	[mA]	70 mA			
Protection electrical		against inversion of polarity (except 5 VDC version) and short-circuit			
EMC		according to EN 61000-6-2 level 3			
Shock		250 g, 6 ms according to CEI EN 60068-2-27			
Vibrations		10 g, 5-2000 Hz according to CEI EN 60068-2-6			
Protection class		IP67			
Operating temperature range	[°C]	-25...+85			
Storage temperature range	[°C]	-40...+100			
Housing material		die cast aluminium, UNI EN AC-46100			
Electrical connection		Hi-flex cable with open wires or cable with connector M12, 8 pins			
Gap between sensor/tape (without cover strip)	[mm]	0.1...2 mm			
Travel speed max. (mechanical)	[m/s]	16 m/s			
Travel speed max. (electrical)	[m/s]	11.67	23.34	25	

Magnetic Tape WB50

Length	[m]	max. 100		
Protection class		IP67		
Operating temperature range	[°C]	-20...+70		
Storage temperature range	[°C]	-40...+100		
Thermal expansion coefficient	[K ⁻¹]	16 * 10 ⁻⁶		
Polar pitch	[mm]	5		
Accuracy class		$\pm 85 \mu\text{m/m}$, $\pm 35 \mu\text{m/m}$ (up to 30 m)		

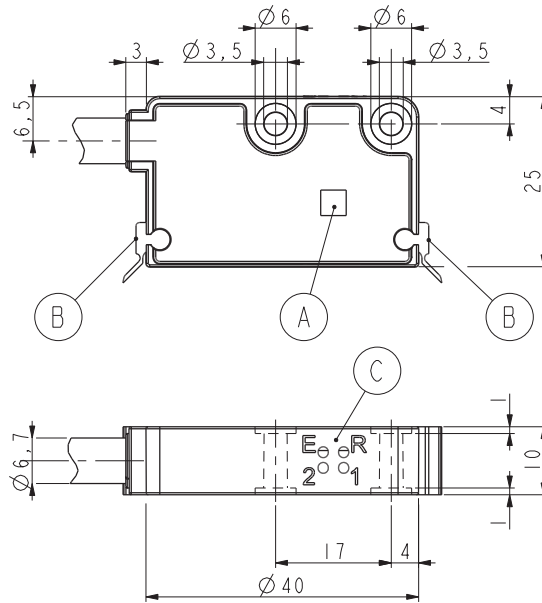
Magnetic Tape WB50 Chemical Resistance Information

Acetone	••	Kerosene	•	Seawater	••
Acetylene	••	Ketone	•••	Steam heat	•
Antifreeze (Glacial acetic acid)	•	Mineral / Motor oil	•	Thinner	•••
Benzene	•••	Petrol	••	Turpentine	••
Heptane	•••				

• No effect or low effect •• Low to Medium effect ••• Strong effect

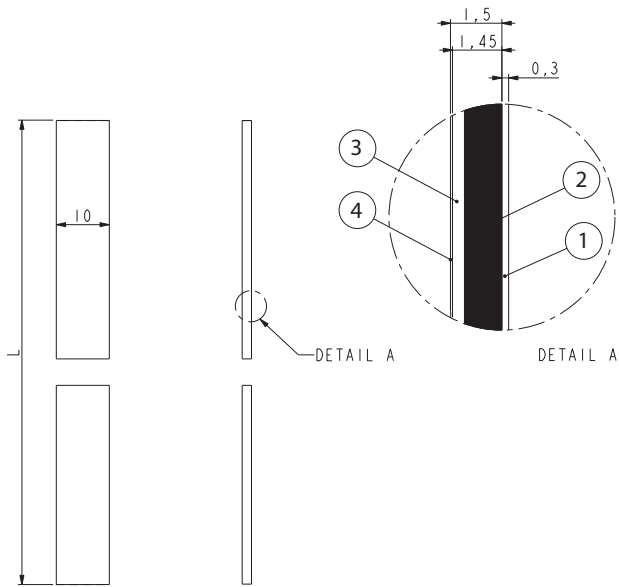
TECHNICAL DRAWING

Sensor MXI51



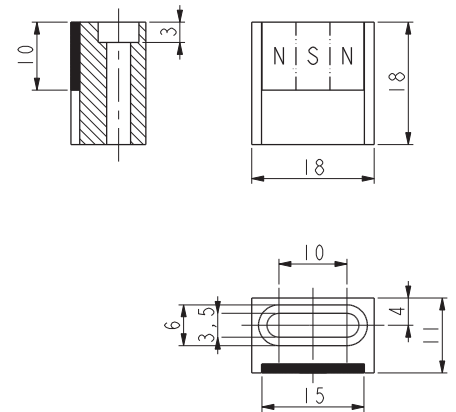
A	Reference sensor „R“
B	Dust wipers (not included in delivery)
C	Diagnostic LEDs
E	Gap/Speed error (red)
R	Reference detection (green)
1	LED 1 (not used)
2	LED 2 (not used)

Magnetic Tape WB50

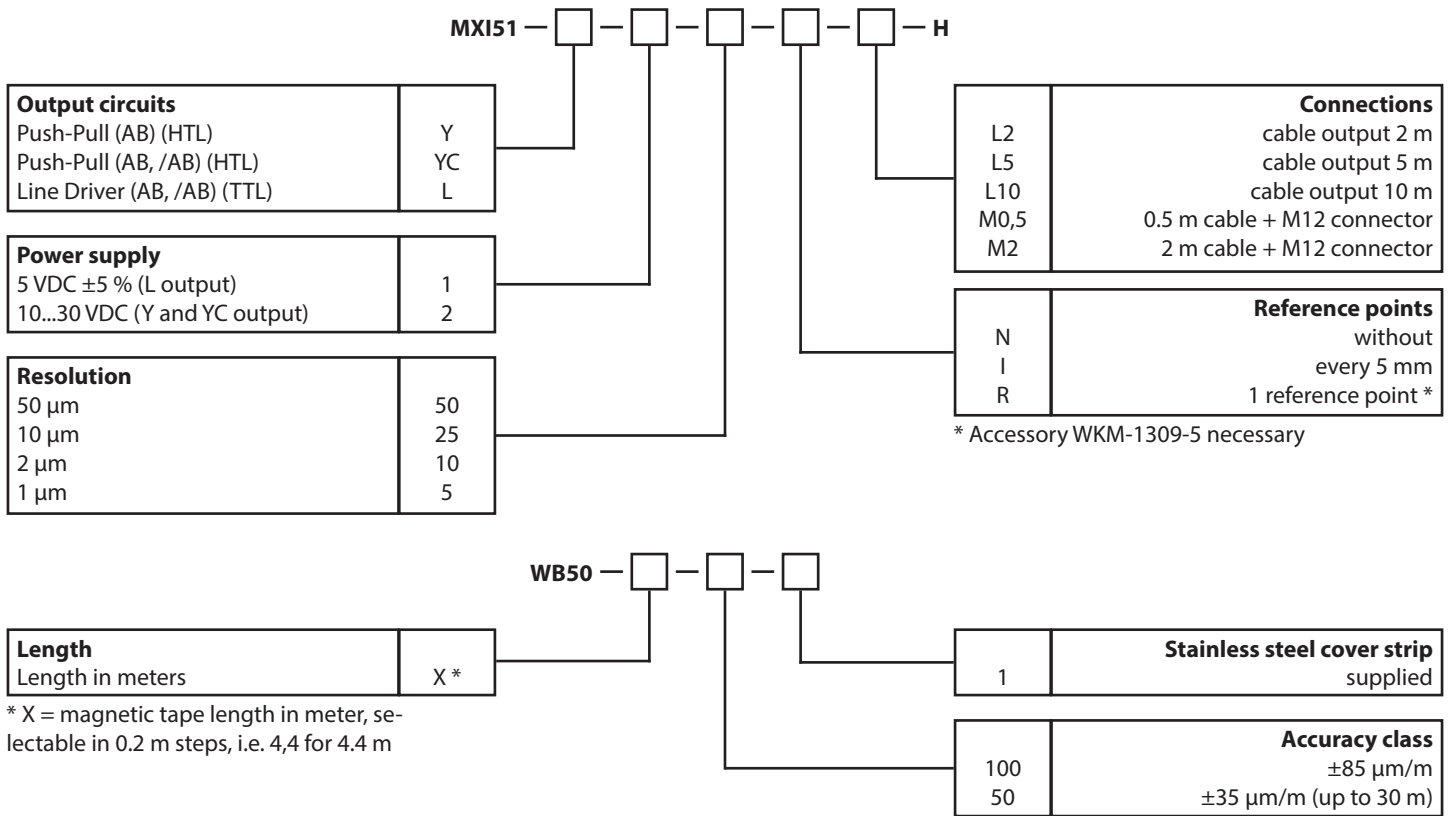


1	Cover strip
2	Plastoferrite tape
3	Carrier with adhesive strip
4	Adhesive tape
L	Magnetic tape length

Reference pole support WKM-1309-5



ORDER CODE



ACCESSORIES

Cables and connectors

D8-G-M12-S	M12, 8 pin mating connector, straight
D8-W-M12-S	M12, 8 pin mating connector, angular
K8P2M-S-M12	2 m, connector straight, M12, IP67
K8P5M-S-M12	5 m, connector straight, M12, IP67
K8P10M-S-M12	10 m, connector straight, M12, IP67

Other accessories

WKM-1309-5	Reference pole for option R and T *
KIT WIPERS	Wipers (10 pcs) *

* not included in delivery

Subject to change without prior notice.

WayCon Positionsmesstechnik GmbH
 email: info@waycon.de
 internet: www.waycon.biz

WayCon

Positionsmesstechnik

Head Office
 Mehlerstr. 4
 82024 Taufkirchen
 Tel. +49 (0)89 67 97 13-0
 Fax +49 (0)89 67 97 13-250

Office Köln
 Auf der Pehle 1
 50321 Brühl
 Tel. +49 (0)2232 56 79 44
 Fax +49 (0)2232 56 79 45