## Datenblatt

#### Features at a glance

- Magnetic, absolute sensor for linear measurement
- Resolution 0.01 mm
- Non-contact reading of sensor
- Measuring range up to 40 m
- Backlash-free measuring position during movement in non-powered state



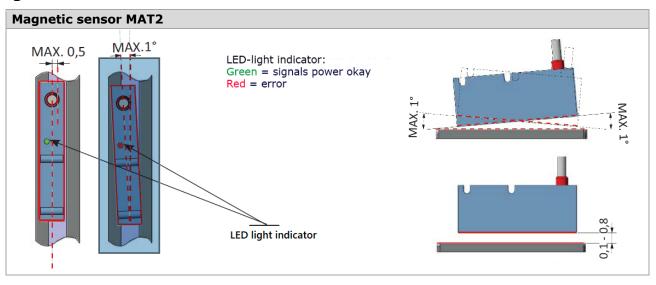
#### **Mechanical characteristics**

Material						
Housing	Aluminium					
Resolution	0,01 mm					
Measurement accuracy	± 0,1 mm/m					
Measuring length	Max. 40,875 m					
Distance sensor/ magnetic band	0,1 - 0,8 mm					
Displacement speed	Max. 5 m/s					
Working temperature	0 °C up to +50 °C					
IP-Rating	IP66					
EMC	2014/30/UE					

#### **Electrical characteristics**

Electrical connection	Cable output Ø6,6 mm PUR Ig standard: 2m (5 m, 10 m)					
Output format	24 or 25 Bit in SSI Gray / Binary code (to be specified) + parity (optional)					
Clock SSI	32 kHz ÷ 1,5 MHz					
Interface	SSI					
Power supply	10 to 30 VDC ± 20%; max. 200 mA					

#### **Alignment tolerances**



MAT2 DB 2021 12 02 EN.DC

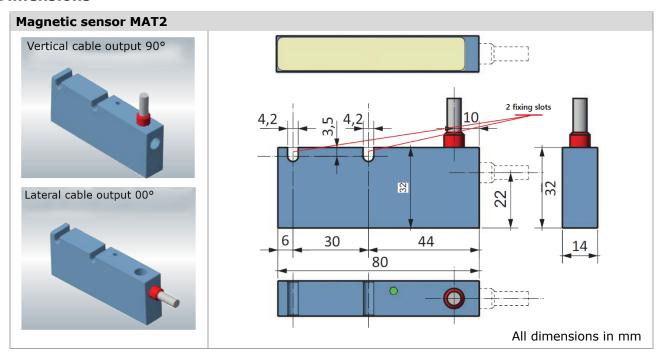
Anzeigen

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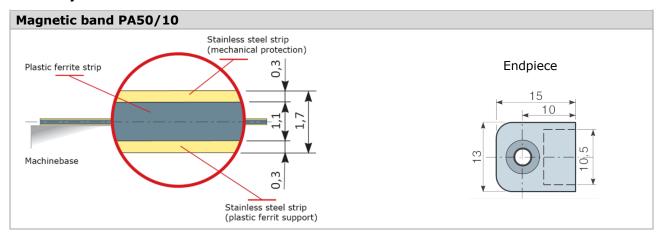
# Datenblatt



#### **Dimensions**



#### **Accessory**



#### Technical characteristics Magnetic band PA50/10

Length	Max. 40,955 m Standard length min. 30 cm, then multiples of 50 cm, other lengths on request Terminals for band (optional)						
Width	10 mm						
Thickness	1,7 mm						
Bending radius	≥ 75 mm						
Linear thermal expansion	11 ppm/K						
Material	Plastic-Ferrite band, supported by a stainless-steel band						
Working temperature	-10 ÷ 65°C						

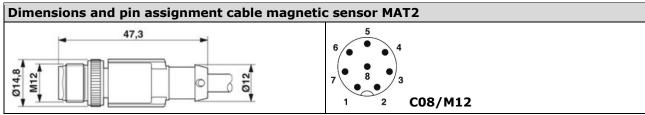
Willtec Messtechnik GmbH & Co. KG, Eschenweg 4, 79232 March-Hugstetten, Fon: 07665/93465-0 Fax: 07665/93465-22

Sensorik

# Wesstechnik

### Datenblatt

#### **Electrical connection** Magnetic sensor MAT2

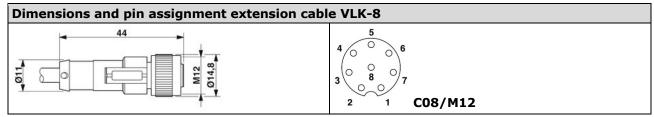


Dimensional drawing: M12 plug, straight, shielded

Schematic drawing: Pin diagram connector (plug) M12, 8-pin, A-coded, view pin side

Pin assignment cable magnetic sensor MAT2							
PIN	Wire colou	r	Signal	Function			
1	green	GN	GND	GND			
2	brown	BN	+24 VDC	V <sub>CC</sub>			
3	yellow	YE	CK+	Clock In+ SSI			
4	orange	orange OG		Clock In- SSI			
5	violet	VT	D-	Data- SSI			
6	withe	WH	D+	Data+ SSI			
7	black	ВК	DIR	counting direction (PNP)			
8	grey	GY	Z	0 – position (PNP)			

Circuit diagram: Contact assignment of the M12 plug



Dimensional drawing: M12 socket, straight, shielded

Schematic drawing: Pin diagram connector (socket) M12, 8-pin, A-coded, <u>view socket side</u>

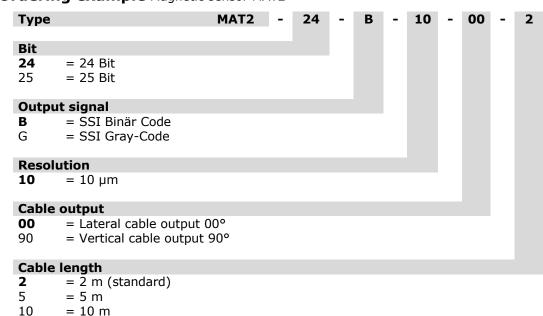
Pin assignment extension cable VLK-8								
PIN	Wire colou	r	Signal	Function				
1	withe	WH	GND	GND				
2	brown	BN	+24 VDC	V <sub>CC</sub>				
3	green	GN	CK+	Clock In+ SSI				
4	yellow	ellow YE		Clock In- SSI				
5	grey	GY	D-	Data- SSI				
6	pink	PK	D+	Data+ SSI				
7	blue	BU	DIR	counting direction (PNP)				
8	red	RD	Z	0 - position (PNP)				

Circuit diagram: Contact assignment of the M12 socket

**Anzeigen** 

# Datenblatt

#### Ordering example Magnetic sensor MAT2



#### Ordering example Extension cable VLK-8

Туре		VLK	-	8	-	05	-	C08/M12	-	F	-	PUR
8	= 8-polig											
Cable	length 1)											
05	= 0,5 m											
Electrical connection												
C08/M12 = connector 8-pin, M12												
Connection												
<b>F</b> = connector (socket) M12, straight, on free cable end												
Cable	type											
DUD 0 wired DUD cable designed for continuous movements												

= 8-wired PUR cable, designed for continuous movements

1) Other cable lengths available on request.



Our MAT2 magnetic sensors are also available in combination with VLK extension cables. For more information on our VLK extension cables, please refer to the corresponding data sheet. Please order VLK extension cable separately.

Manufacturer:

Without prior notice, the products may be subject to modifications that the Manufacturer reserves to introduce as deemed necessary for their improvement.

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