WACHENDORFF

Guided cable shaft copying WDGMS

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Read these instructions before shortening the measuring cord:

Instructions:

1. Mount measurment cable parallel to the trajectory of the cabin.

2. Fix measurment cable at the shaft top first by using the provided ring bolt and screw anchor.

3. Fix the weight at the lower end of the measurement cable and attach the spring at the bottom side of the weight. Use the other ring bolt and screw anchor to fix the other end of the spring to the shaft bottom.

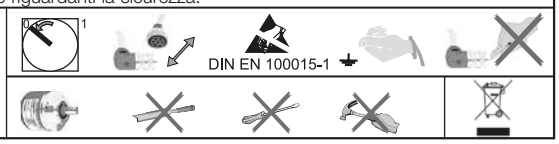
4. Mount the measuring system to the cabin. Mind that the measuring cable should be placed into the pulleys parallelly and without displacement. (the accurateness correspondes directy with a low maintenance)

5. Insert measuring cable according to drawing. Mind that the spring serves as a twist prevention.

6. The measuring cord might stretch during long-term operation, so the length must be checked at regular maintenance intervals. Correct the cable length when neccessary.

Assembly only qualified personnel, Montage pair qualifié personnel, Montaggio solo personale qualificato, Montaje solamente personal cualificado
Safety instructions: Only for use in industrial environments and NOT for safety-relevant areas. Utilisation uniquement dans un environnement industriel et PAS dans un domaine lié à la sécurité. Utilícelo sólo en entornos industriales y NO en áreas relevantes para la seguridad. Utilizzare solo in ambienti industriali e NON in aree riguardanti la sicurezza.

Power supply: Class 2 only



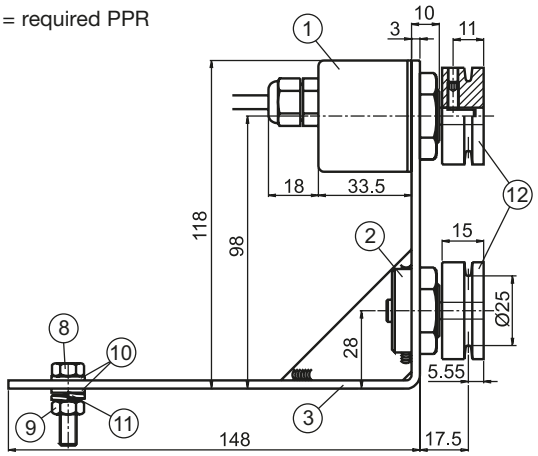
- Complete Measuring System for Length Measurement
- No slip when speed below 1 m/s
- Height typically 17 stops, approx. 53 m
- Resolution until 0.03 mm
- Quick assembly
- Applications: digital shaft copy for lifts, exact measurement of distance and speed

www.wachendorff-automation.com/wdgms

The guided cable shaft copying WDGMS comprises:

1	WDG 40S-XXXX-AB-H24-K2-030	1x WDG 40S according to data sheet
2	Redirect pulley	1x PULLEY-ZVK (incl. Nut)
3	Mounting angle	1x MKMWRT0001-ZVK
4	Weight	1x MKGERT0000-ZVK
5	Spring	1x FESFWDG001-ZVK
6	Ring screw	2x SC80RS50Z0-ZVK (not shown)
7	Dowel I	2x MKDBM8SKU0-ZVK (not shown)
8	Screws M6 x 25	2x SC60HG25Z0-ZVK
9	Nuts M6	2x MUM0M60000-ZVK
10	Washers U6	4x US601612M0-ZVK
11	Spring washers U6	2x US601612M1-ZVK
12	Roll of wire	2x MKRS635150-ZVK

XXXX = required PPR



Measurement drawing WDG-MS-40S-XXXX, dimensions in mm

Specifications of encoder: Available PPR:
4, 9, 10, 15, 20, 25, 28, 30, 36, 40, 50, 60, 90, 100, 120, 125, 128, 150, 160, 180, 200, 235, 250, 300, 314, 318, 360, 400, 500, 600, 635, 720, 900, 1000, 1024, 1080, 1200, 1250, 1500, 1800, 2000, 2048, 2500. (Other PPRs on request)

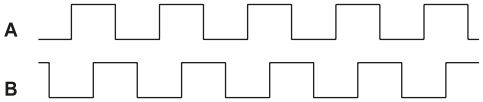
Mechanical Data

Housing	
- Screw flange:	Aluminium
- Cap:	Aluminium, powder coated
Diameter:	40 mm
Shaft	
- Material:	stainless steel
- Diameter:	6 mm with flat
- Length:	13 mm
- Permitted load	max. 80 N radial
on shaft end:	max. 50 N axial
- Starting torque:	approx. 0.2 Ncm at ambient temperature
Bearings	
- Type:	2 precision ball bearings
- Service life:	1x 10^8 revs. at 100 % shaft load
	2x 10^9 revs. at 40 % shaft load
	1x 10^{10} revs. at 20 % shaft load
Max. operating speed:	12000 rpm
Weight:	approx. 300 g with cable
Connections:	K2-030: cable axial
	with 3 m cable
Protection rating :	IP67, shaft sealed to IP65
(EN 60529)	
Operating temperature:	-20 °C up to +85 °C
Storage temperature:	-30 °C up to +85 °C

Machinery Directive: basic data safety integrity level

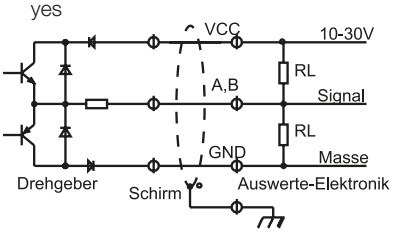
$MTTF_d$:	200 a
Mission time (T_M):	25 a
Nominale service life	1x 10^{10} revs. at 12000 rpm and
($L_{10}h$):	20 % rated shaft load
Diagnostic coverage (DC):	0 %

Puls diagram:



Electrical Data:

Power supply:	10 VDC up to 30 VDC
Current consumption:	max. 70 mA
Channels:	A, B
Output:	push-pull
Load:	max. 40 mA
Signal level:	to 20 mA
	H > U - 2.5 VDC
	L < 2.5 VDC
Pulse frequency:	200 kHz
Circuit protection:	yes



Ordering information:

Description:	Order No.:
Measuring System XXXX = Please specify required PPR (Roll of wire Ø 25 mm)	WDG-MS-40S-XXXX
Accessories:	
Measuring wire xxx = length in meters	WDGSNXXX
Example: Measuring wire, 1 m length	WDGSN001