

## Guided cable shaft copying WDGMS



### 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, 625, 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 on shaft end: max. 80 N radial, max. 50 N axial  
 - Starting torque: approx. 0.2 Ncm at ambient temperature

##### Bearings

- Type: 2 precision ball bearings  
 - Service life: 1x 10<sup>8</sup> revs. at 100 % shaft load, 2x 10<sup>9</sup> revs. at 40 % shaft load, 1x 10<sup>10</sup> 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)

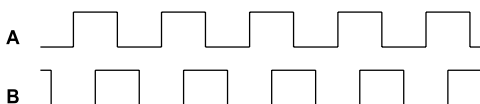
Operating temperature: -20 °C up to +85 °C

Storage temperature: -30 °C up to +85 °C

#### Machinery Directive: basic data safety integrity level

MTTF<sub>d</sub>: 200 a  
 Mission time (T<sub>M</sub>): 25 a  
 Nominale service life (L<sub>10h</sub>): 1x 10<sup>10</sup> revs. at 12000 rpm and 20 % rated shaft load  
 Diagnostic coverage (DC): 0 %

#### Puls diagram:



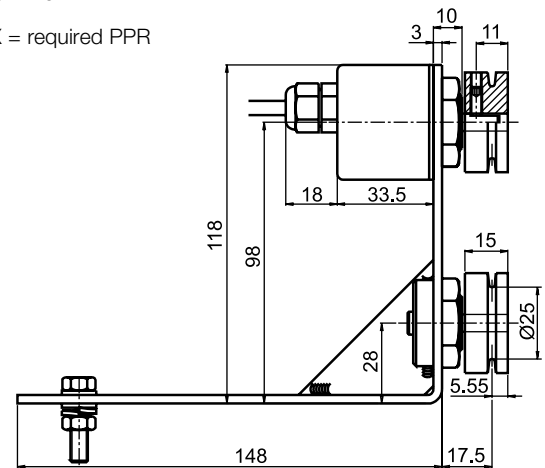
- Complete Measuring System for Length Measurement
- No slip when speed below 1 m/s
- Height typically 17 stops, approx. 53 m
- Resolution until 0.03 mm
- Quick assembly
- Applications: digital shaft copy for lifts, exact measurement of distance and speed

[www.wachendorff-automation.com/wdgms](http://www.wachendorff-automation.com/wdgms)

#### The guided cable shaft copying WDGMS comprises:

WDG 40S-XXXX-AB-H24-K2-030	1x
Redirect pulley	1x
Mounting angle	1x
Weight	1x
Spring	1x
Ring screw	2x
Dowel	2x
Screws M6 x 25	2x
Nuts M6	2x
Washers U6	4x
Spring washers U6	2x
Roll of wire	2x

XXXX = required PPR



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

#### 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

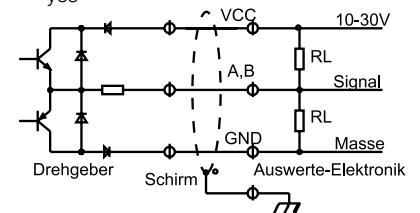
Signal level: to 20 mA

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 Example: Measuring wire, 1 m length	WDGMSXXXX WDGMS001