



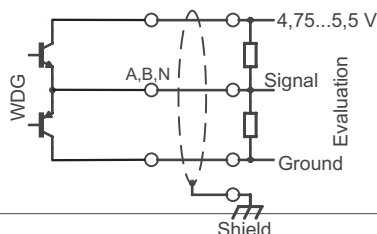
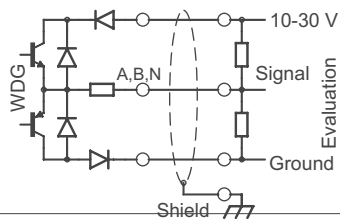
- **Extremely rugged and economical encoder with short measurements**
- **Easy mounting**
- **Meets protection class IP68**

#### Application fields:

Machines for labelling inspection and filling, industrial elevators also for outdoor use, belt scale in a quarry, automatic car wash machines and crane systems.

#### Electrical Data:

|                       |                                 |                       |
|-----------------------|---------------------------------|-----------------------|
|                       | G24 / I24                       | G05 / I05             |
| Design according to   | DIN VDE0160                     | DIN VDE0160           |
| Power supply:         | 10 - 30 VDC                     | 4,75 - 5,5 VDC        |
| Current consumption:: | max. 70 mA                      | max. 70 mA            |
| Channels              | see pulse diagram               |                       |
| Output:               | push-pull                       | push-pull             |
| Load:                 | max. 40 mA                      | max. 40 mA            |
| Signal level:         | at 20 mA                        | at 20 mA              |
|                       | $H > U_{ref} - 2,5 \text{ VDC}$ | $H > 2,5 \text{ VDC}$ |
|                       | $L < 2,5 \text{ VDC}$           | $L < 1,2 \text{ VDC}$ |
| Pulse frequency:      | max. 200 kHz                    | max. 200 kHz          |
| Circuit protection:   | yes                             | no                    |
| Early-warning output: | conducting when defective       |                       |
| Cable length:         | max. 100 m                      | max. 100 m            |



#### Specifications

##### Available Pulses (Other PPRs on request)

9, 10, 15, 20, 25, 28, 30, 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

##### Mechanical Data

|                         |                                     |
|-------------------------|-------------------------------------|
| Housing                 |                                     |
| - Servo flange:         | Aluminium incl. Nut M20 x 1,5       |
| - Housing               | Aluminium                           |
| Shaft                   |                                     |
| - Material:             | Stainless steel                     |
| - Loading on shaft-End: | max. 20 N radial<br>max. 10 N axial |
| - Starting torque:      | ca. 1,2 Ncm at ambient temperature  |

|                  |                                                                                                |
|------------------|------------------------------------------------------------------------------------------------|
| Bearings         |                                                                                                |
| - Type:          | 2 precision ball-Bearings                                                                      |
| - Service life:  | $10^9$ U bei 100% of full rated shaft load<br>$10^{10}$ revs. at 40%<br>$10^{11}$ revs. At 20% |
| Operating speed: | 6.000 rpm                                                                                      |
| Weight:          | approx. 215 g                                                                                  |

|             |                             |
|-------------|-----------------------------|
| Connection: | Shielded cable or connector |
|-------------|-----------------------------|

|                      |            |
|----------------------|------------|
| Anzugsmoment Mutter: | max. 10 Nm |
|----------------------|------------|

##### Optics

|               |                   |
|---------------|-------------------|
| Light source: | IR - LED          |
| Service life: | typ. 100.000 hrs. |
| Scanning:     | differential      |

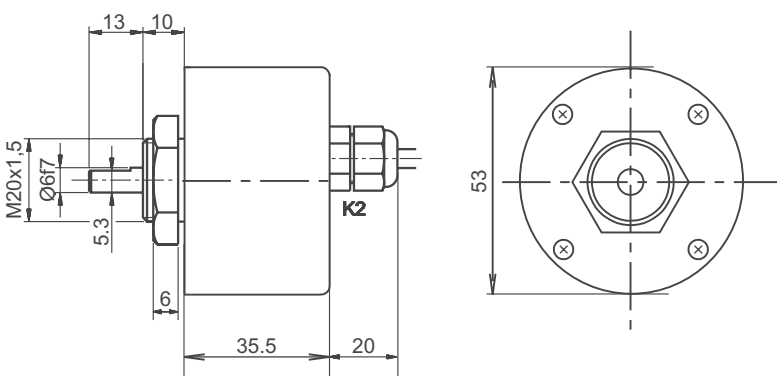
##### Accuracy

|                     |                      |
|---------------------|----------------------|
| Quadrature phasing: | $90^\circ \pm 7,5\%$ |
| Pulse on/off ratio: | $50\% \pm 7\%$       |

##### Environmental Data

Measured mounted and housing grounded.

|                           |                                   |
|---------------------------|-----------------------------------|
| ESD (DIN EN 61000-4-2):   | 8 kV                              |
| Burst (DIN EN 61000-4-4): | 2 kV                              |
| Protection rating:        | Ip68                              |
| (EN 60529)                |                                   |
| Vibration                 | $50 \text{ m/s}^2$ (10...2000 Hz) |
| (DIN EN 60068-2-6):       |                                   |
| Shock                     | $1000 \text{ m/s}^2$ (6 ms)       |
| (DIN EN 60068-2-27):      |                                   |
| Operating temperature:    | $-10 \dots +70^\circ \text{C}$    |
| Storage temperature:      | $-30 \dots +80^\circ \text{C}$    |



ORDERING CODE



DINS58



Pulses per revolution  
s. page 1



Channels  
ABN



Output circuit  
G24 = 10–30 VDC  
G05 = 5 VDC  
Only for K3, L3, S5:  
I24 = 10–30 VDC (inv.)  
I05 = 5 VDC (inv.)



Electrical connections  
Cable  
K3 = radial, 2 m, shield not connected (standard)  
L3 = radial, 2 m, shield connected to encoder housing  
Connector  
S3 = 7-pin. radial  
S5 = 12-pin. radial

