

## GEMMW

Solid shaft with clamping or synchro flange, stainless steel housing

Optical multiturn encoders 13 bit ST / 16 bit MT, CANopen®, Profibus

### Overview

- Encoder multiturn / bus cover
- Stainless steel design
- Optical sensing method
- Resolution: singleturn 13 bit, multiturn 16 bit
- Clamping or synchro flange
- CANopen®, Profibus-DP
- Material: stainless steel 1.4305
- Maximum resistant against magnetic fields



### Technical data

#### Technical data - electrical ratings

|                             |                                                                                          |
|-----------------------------|------------------------------------------------------------------------------------------|
| Voltage supply              | 10...30 VDC                                                                              |
| Reverse polarity protection | Yes                                                                                      |
| Consumption w/o load        | ≤100 mA (24 VDC)                                                                         |
| Initializing time typ.      | 250 ms after power on                                                                    |
| Interface                   | CANopen®<br>Profibus-DPV0                                                                |
| Function                    | Multiturn                                                                                |
| Device address              | Rotary switch in bus cover (type-specific)                                               |
| Steps per revolution        | ≤8192 / 13 bit                                                                           |
| Number of revolutions       | ≤65536 / 16 bit                                                                          |
| Absolute accuracy           | ±0.025 °                                                                                 |
| Sensing method              | Optical                                                                                  |
| Code                        | Binary                                                                                   |
| Code sequence               | CW/CCW programmable                                                                      |
| Interference immunity       | EN 61000-6-2                                                                             |
| Emitted interference        | EN 61000-6-4                                                                             |
| Programmable parameters     | Steps per revolution<br>Number of revolutions<br>Preset<br>Scaling<br>Rotating direction |
| Diagnostic function         | Position or parameter error<br>Multiturn sensing                                         |
| Approval                    | UL approval / E63076                                                                     |

#### Technical data - mechanical design

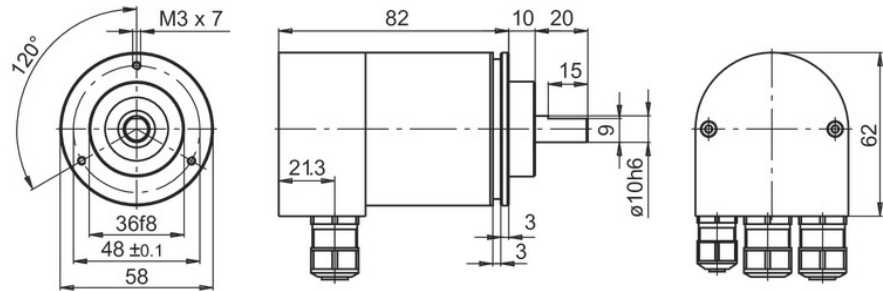
|                         |                                                                                                        |
|-------------------------|--------------------------------------------------------------------------------------------------------|
| Size (flange)           | ø58 mm                                                                                                 |
| Shaft type              | ø10 mm solid shaft (clamping flange)<br>ø6 mm solid shaft (synchro flange)                             |
| Flange                  | Clamping or synchro flange                                                                             |
| Protection EN 60529     | IP 67                                                                                                  |
| Operating speed         | ≤10000 rpm (mechanical)<br>≤6000 rpm (electric)                                                        |
| Starting acceleration   | ≤1000 U/s²                                                                                             |
| Starting torque         | ≤0.03 Nm (+25 °C, IP 67)                                                                               |
| Rotor moment of inertia | 20 gcm²                                                                                                |
| Admitted shaft load     | ≤20 N axial<br>≤40 N radial                                                                            |
| Material                | Housing: stainless steel 1.4305<br>Flange: stainless steel 1.4305<br>Bus cover: stainless steel 1.4305 |
| Operating temperature   | -25...+85 °C<br>-40...+85 °C (optional)                                                                |
| Relative humidity       | 95 % non-condensing                                                                                    |
| Resistance              | EN 60068-2-6<br>Vibration 10 g, 16-2000 Hz<br>EN 60068-2-27<br>Shock 200 g, 6 ms                       |
| Weight approx.          | 900 g                                                                                                  |
| Connection              | Bus cover                                                                                              |

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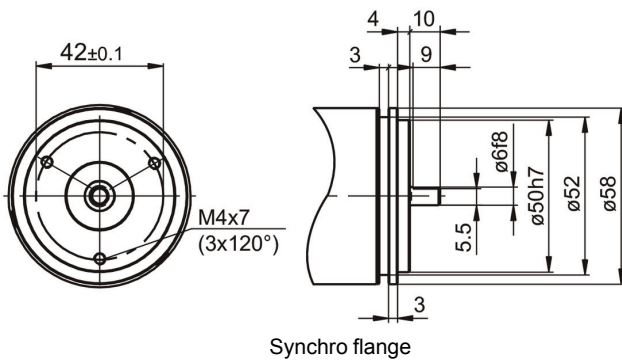
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### Dimensions



GEMMW - CANopen®, Profibus-DP, clamping flange



Synchro flange

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### Ordering reference

|                                 |  | GEMMW | . | # | 20 | #### |
|---------------------------------|--|-------|---|---|----|------|
| <b>Product</b>                  |  | GEMMW |   |   |    |      |
| <b>Flange / Solid shaft</b>     |  |       |   |   |    |      |
| Clamping flange / ø10 mm, IP 67 |  | A     |   |   |    |      |
| Synchro flange / ø6 mm, IP 67   |  | B     |   |   |    |      |
| <b>Voltage supply</b>           |  | 20    |   |   |    |      |
| 10...30 VDC                     |  |       |   |   |    |      |
| <b>Interface</b>                |  |       |   |   |    |      |
| Profibus-DPV0 / cable gland     |  | 3P32  |   |   |    |      |
| CANopen® / cable gland          |  | 5P32  |   |   |    |      |

### Accessories

#### Mounting accessories

11191971 Bellows coupling - stainless steel (D1=10 / D2=10)