

Absolute Encoders - Modular Bus Covers

multivo: optical sensing, shaft

Single and multiturn encoder 13 bit ST / 16 bit MT

CANopen / DeviceNet / EtherCAT / Profibus / SSI / Lightbus



GXAMW, GXMMW

multivo®



GXMMW with modular bus cover

Features

- Optical single/multiturn encoder with bus covers
- Resolution: 13 bit singleturn and 16 bit multiturn
- Clamping flange or synchro flange
- High immunity against shock and vibrations
- Modular bus interfaces
- CANopen / DeviceNet / EtherCAT / Profibus / SSI / Lightbus
- Code continuity check optional by bus

Optional

- Incremental outputs
- Stainless steel design

Technical data - electrical ratings

| | |
|-----------------------------|--|
| Supply voltage range | 10...30 VDC |
| Reverse polarity protection | Yes |
| Consumption w/o load | ≤100 mA (24 VDC) |
| Initializing time | 250 ms after power on |
| Interfaces | Profibus-DPV0 /V2, CANopen, DeviceNet, EtherCAT, Optic fiber bus, SSI |
| User address | Rotary switch in bus cover (type-specific) |
| Steps per turn | 8192 / 13 bit |
| Number of turns | 65536 / 16 bit |
| Incremental output | 2048 impulses A90°B (optional) |
| Absolute accuracy | ±0.025 ° |
| Code | Binary |
| Code sequence | CW/CCW programmable |
| Interference immunity | DIN EN 61000-6-2 |
| Emitted interference | DIN EN 61000-6-4 |
| Programmable parameters | Steps per turn Number of turns Preset Scaling Rotating direction |
| Diagnostic functions | Position or parameter error Multiturn sensing |
| Status indicator | DUO-LED in bus cover |
| Approval | UL Approval / E63076 |

GXAMW

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|----------|------------|
| Function | Singleturn |
|----------|------------|

GXMMW

| | |
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| Function | Multiturn |
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Technical data - mechanical design

| | |
|-------------------------|--|
| Housing | ø58 mm |
| Shaft | ø10 mm (clamping flange) ø6 mm (synchro flange) |
| Flange | Clamping or synchro flange |
| Protection DIN EN 60529 | IP 54 without shaft seal IP 65 with shaft seal |
| Operating speed | ≤10000 rpm |
| Starting torque | ≤0.015 Nm IP 54 ≤0.03 Nm IP 65 |
| Rotor moment of inertia | 20 gcm ² |
| Admitted shaft load | ≤20 N axial ≤40 N radial |
| Materials | Housing: steel Flange: aluminium Bus cover: aluminium |
| Operating temperature | -25...+85 °C -40...+85 °C (optional) |
| Relative humidity | 95 % non-condensing |
| Resistance | DIN EN 60068-2-6 Vibration 10 g, 16-2000 Hz DIN EN 60068-2-27 Shock 200 g, 6 ms |
| Weight approx. | 650 g |
| E-connection | Bus cover |

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adparts

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Ordering part number

GXAMW. 20

| | |
|------|--------------------------------|
| | <u>Interface</u> |
| 3P32 | Profibus-DPV0 / cable gland |
| 3PA2 | Profibus-DPV0 / M12 connector |
| 3V32 | Profibus-DPV2 / cable gland |
| 3VA2 | Profibus-DPV2 / M12 connector |
| EPA2 | EtherCAT / M12 connector |
| 5P32 | CANopen / cable gland |
| 5PA2 | CANopen / M12 connector |
| 8P22 | DeviceNet / cable gland |
| 8PA2 | DeviceNet / M12 connector |
| LM32 | Lightbus / cable gland |
| 2PA2 | SSI / M12 connector |
| | <u>Flange / Shaft</u> |
| 0 | Clamping flange / ø10 mm IP 54 |
| A | Clamping flange / ø10 mm IP 65 |
| 1 | Synchro flange / ø6 mm IP 54 |
| B | Synchro flange / ø6 mm IP 65 |

GXMMW. 20

| | |
|------|--------------------------------|
| | <u>Interface</u> |
| 3P32 | Profibus-DPV0 / cable gland |
| 3PA2 | Profibus-DPV0 / M12 connector |
| 3V32 | Profibus-DPV2 / cable gland |
| 3VA2 | Profibus-DPV2 / M12 connector |
| EPA2 | EtherCAT / M12 connector |
| 5P32 | CANopen / cable gland |
| 5PA2 | CANopen / M12 connector |
| 8P22 | DeviceNet / cable gland |
| 8PA2 | DeviceNet / M12 connector |
| LM32 | Lightbus / cable gland |
| 2PA2 | SSI / M12 connector |
| | <u>Flange / Shaft</u> |
| 0 | Clamping flange / ø10 mm IP 54 |
| A | Clamping flange / ø10 mm IP 65 |
| 1 | Synchro flange / ø6 mm IP 54 |
| B | Synchro flange / ø6 mm IP 65 |

CD with describing files is not included with delivery. Describing files (GSD / EDS / XML), manuals and mounting instructions are available as download on www.ivo.de. You may also order them on CD as accessory free-of-charge: Part number Z 150.022.

The matching bus covers are listed in the chapter "Bus covers / Accessories / Service".

Accessories

Programming accessories

| | |
|-----------|--|
| Z 150.022 | CD with describing file and manuals |
| Z 139.008 | Programming cable for encoders with SSI bus cover, CD with software and manual |

Mating connectors

| | |
|-----------|----------------------------------|
| Z 119.034 | Lightbus connector for data line |
|-----------|----------------------------------|

Mounting accessories

| | |
|-----------|--|
| Z 119.006 | Eccentric fixing, single |
| Z 119.013 | Adaptor plate for clamping flange for modification into synchro flange |
| Z 119.015 | Mounting clamp for synchro flange |
| Z 119.017 | Mounting angle for clamping flange |
| Z 119.035 | Bearing flange for encoders with synchro flange |

Recommended accessories



Z 119.017
For encoders with clamping flange



Z 119.015
For encoders with synchro flange



Z 119.035
For encoders with synchro flange

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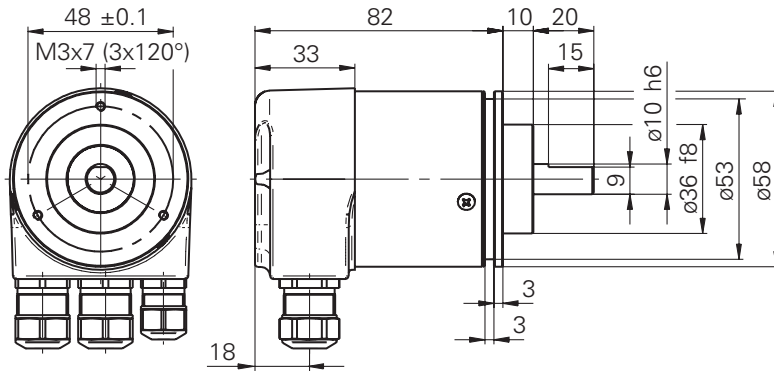


GXAMW, GXMMW

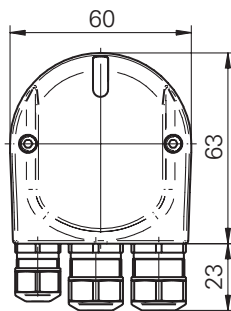
multivo®

Dimensions

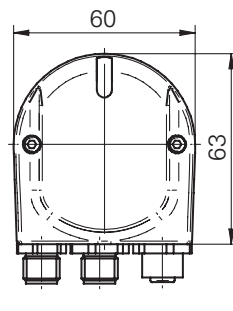
GXAMW, GXMMW clamping flange



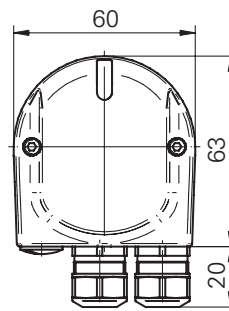
Profibus-DP, CANopen



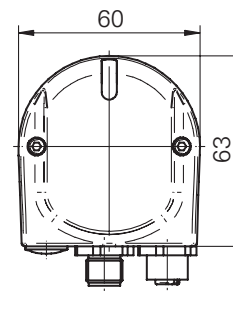
Profibus-DP M12 connector DeviceNet



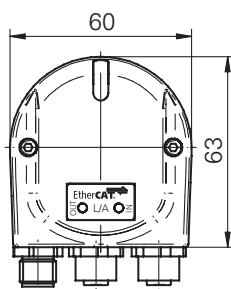
DeviceNet



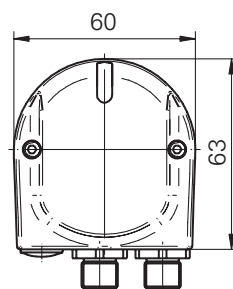
CANopen, DeviceNet M12



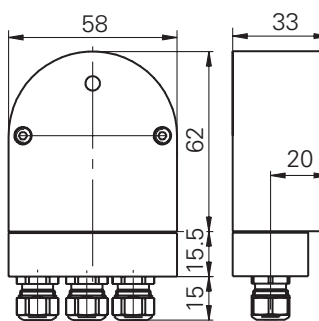
EtherCAT



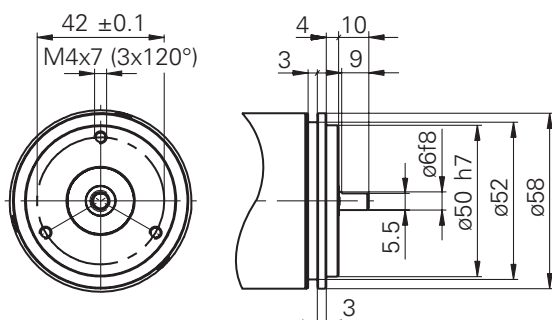
SSI



Lightbus



GXAMW, GXMMW synchro flange



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