

Absolute Encoders - Modular Bus Covers

magtivo: magnetical sensing, shaft

Multiturn encoder 12 bit ST / 16 bit MT

CANopen / DeviceNet / EtherCAT / Profibus / SSI / Lightbus



GCMMW

magtivo®



GCMMW with modular bus cover

Features

- Magnetic multiturn encoder with bus covers
- Resolution: 12 bit singleturn and 16 bit multiturn
- Clamping flange or synchro flange
- Encoder for heavy-duty applications
- New innovative sensing technology
- Modular bus interface concept
- CANopen / DeviceNet / EtherCAT / Profibus / SSI / Lightbus
- Code continuity check optional by bus

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
Function	Multiturn
User address	Rotary switch in bus cover (type-specific)
Steps per turn	4096 / 12 bit
Number of turns	65536 / 16 bit
Absolute accuracy	±1 °
Code	Binary
Code sequence	CW default, 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

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: zinc die-cast or 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.	700 g
E-connection	Bus cover

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adparts

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Ordering part number

GCMMW. **20**

Interface

- 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

Flange / Shaft

- 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

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 119.025 Adaptor plate for clamping flange, mounting by eccentric fixings (order separately)
- Z 119.035 Bearing flange for encoders with synchro flange

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".

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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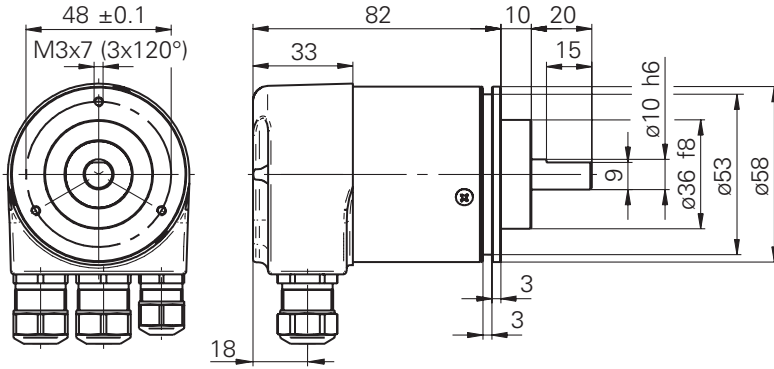
CANopen / DeviceNet / EtherCAT / Profibus / SSI / Lightbus

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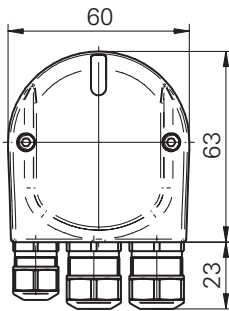
magtivo®

Dimensions

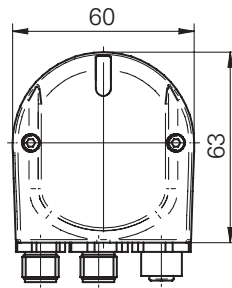
GCMMW clamping flange



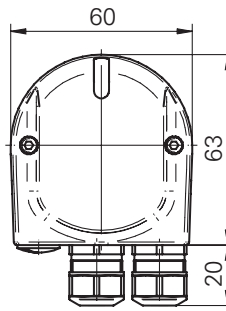
Profibus-DP, CANopen



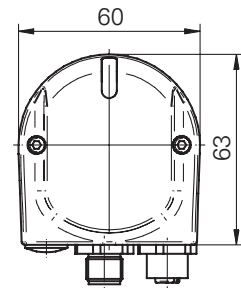
Profibus-DP M12 connector DeviceNet



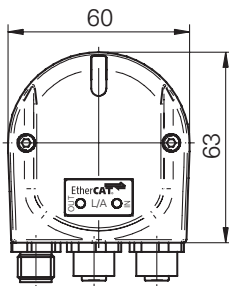
DeviceNet



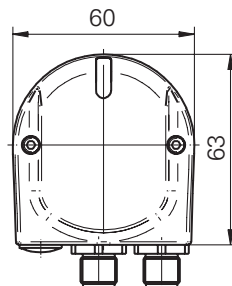
CANopen, DeviceNet M12



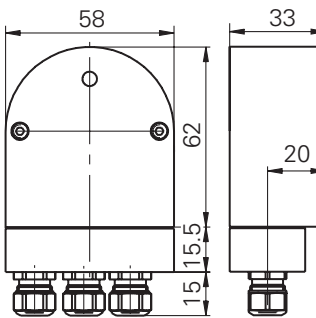
EtherCAT



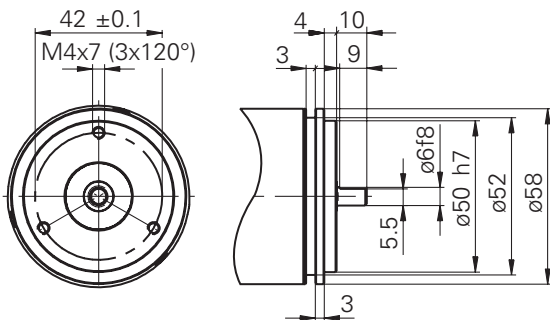
SSI



Lightbus



GCMMW synchro flange



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