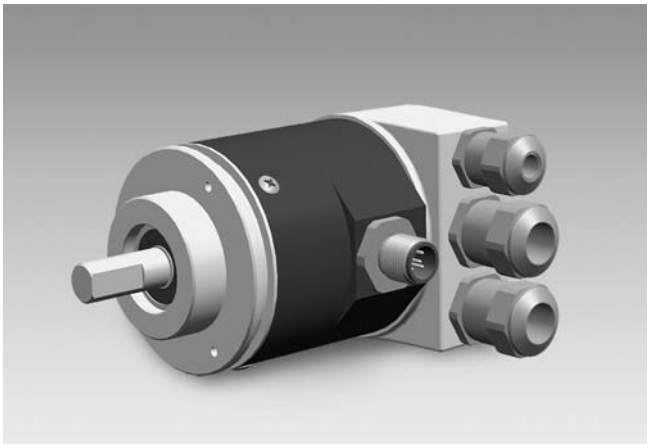
Absolute encoders - modular bus covers

multivo: optical sensing, shaft

Multiturn encoder 13 bit ST / 16 bit MT, incremental tracks

CANopen / DeviceNet / EtherCAT / Profibus / SSI / fibre-optic

GXMMW + incremental - *multivo*



GXMMW with modular bus cover

Features

- **Encoder multiturn / bus cover**
- **Optical sensing**
- **Resolution: singleturn 13 bit, multiturn 16 bit**
- **Clamping flange or synchro flange**
- **High resistance to shock and vibrations**
- **Modular bus interfaces**
- **CANopen/DeviceNet/EtherCAT/Profibus/SSI/fibre-optic**
- **Code continuity check optional by bus**
- **Two incremental tracks A and B**

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
Interfaces	Profibus-DPV0, Profibus-DPV2, CANopen, DeviceNet, EtherCAT, Fiber-optic 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 pulses A90°B + inverted
Absolute accuracy	±0.025°
Sensing method	Optical
Code	Binary
Code sequence	CW/CCW programmable
Output circuit	Push-pull short-circuit proof RS422
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4
Programmable parameters	Steps per revolution Number of revolutions Preset Scaling Rotational direction
Diagnostic functions	Position or parameter error Multiturn sensing
Status indicator	DUO-LED integrated 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 (mechanical) ≤6000 rpm (electric)
Starting torque	≤0.01 Nm IP 54 ≤0.015 Nm IP 65
Rotor moment of inertia	20 gcm²
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.	670 g
E-connection	Bus cover

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Part number

GXMMW. [ ][ ][ ]

Interface

3P32	Profibus-DPV0 / cable gland
3PA2	Profibus-DPV0 / connector M12
3V32	Profibus-DPV2 / cable gland
3VA2	Profibus-DPV2 / connector M12
EPA2	EtherCAT / connector M12
5P32	CANopen / cable gland
5PA2	CANopen / connector M12
8P22	DeviceNet / cable gland
8PA2	DeviceNet / connector M12
LM32	Fiber-optic / cable gland
2PA2	SSI / connector M12

Pulses / Incremental output

50	2048 pulses / push-pull +inverted
F0	2048 pulses / RS422

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

Connectors and cables

Z 119.034	Connector for data cable fibre-optic

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 adaptor for synchro flange
Z 119.017	Mounting angle for clamping flange
Z 119.035	Bearing flange for encoders with synchro flange

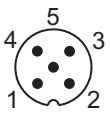
Programming accessories

Z 150.022	CD with describing files & manuals
Z 139.008	Programming cable for encoders with SSI bus cover, CD with software and manual

Terminal assignment

Incremental connector

Connector	Assignment
Pin 1	A
Pin 2	B
Pin 3	A inv.
Pin 4	B inv.
Pin 5	GND



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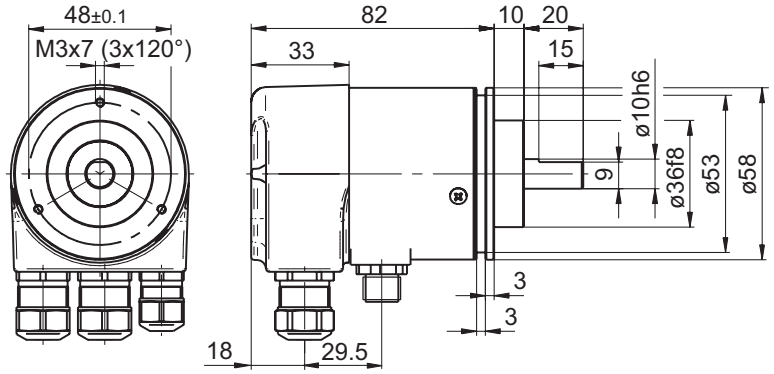
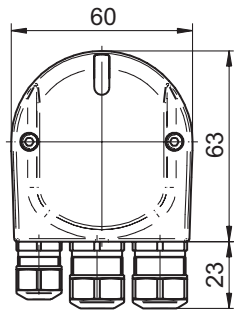
Dimensions

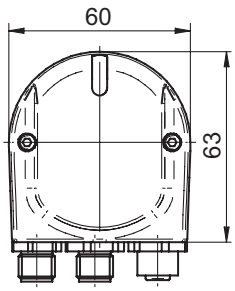
GXMMW clamping flange



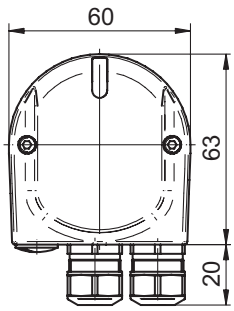
Profibus-DP, CANopen



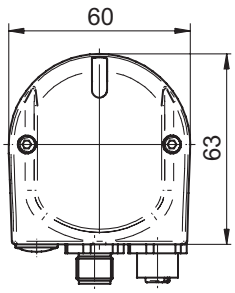
Profibus DP - M12



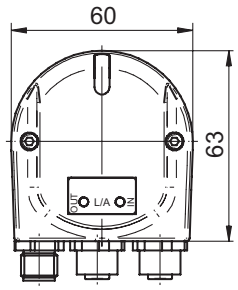
DeviceNet



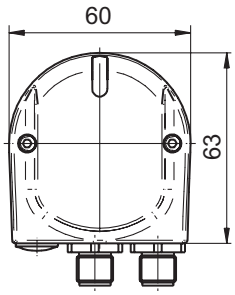
CANopen, DeviceNet M12



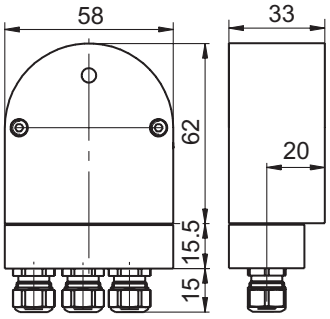
EtherCAT



SSI



Fibre-optic



GXMMW synchro flange