

Absolute Encoders - Modular Bus Covers

multivoPlus: optical sensing, high resolution, shaft

Single and multiturn encoder 18 bit ST / 16 bit MT

CANopen / DeviceNet / EtherCAT / Profibus / SSI / Lightbus



GBAMW, GBMMW

multivoPlus



GBMMW with modular bus cover

Features

- Optical single/multiturn encoder with bus covers
- High total resolution up to 31 bit
- Clamping flange or synchro flange
- Extremely compact design
- High immunity against shock and vibrations
- New innovative sensing technology
- Modular bus interfaces
- 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
User address	Rotary switch in bus cover
Steps per turn	262144 / 18 bit
Number of turns	65536 / 16 bit
Absolute accuracy	±0.01 °
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

GBAMW

Function	Singleturn
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GBMMW

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: 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.	600 g
E-connection	Bus cover

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adparts

GBAMW, GBMMW

Ordering part number

GBAMW. 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

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	<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

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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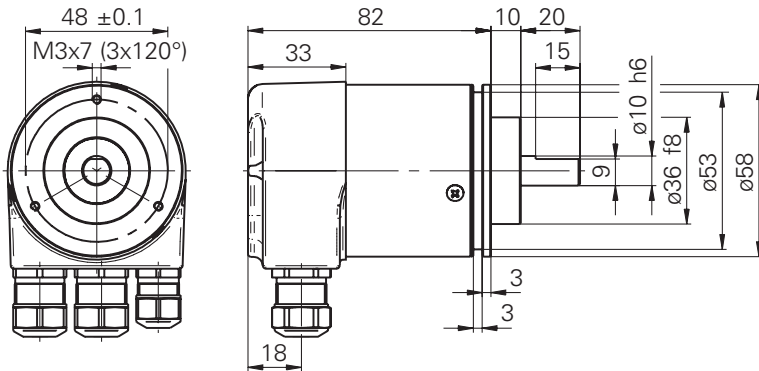


GBAMW, GBMMW

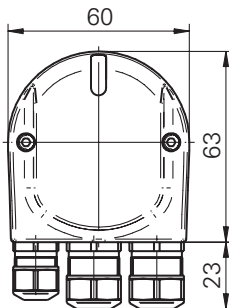
multivoPlus

Dimensions

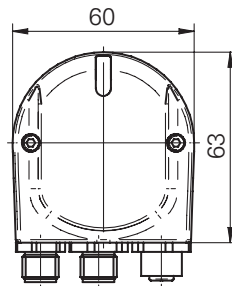
GBAMW, GBMMW clamping flange



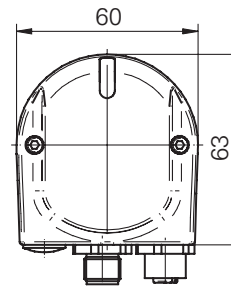
Profibus-DP, CANopen



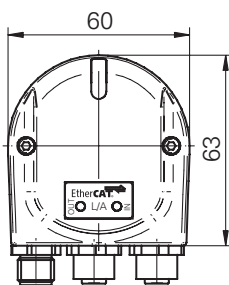
Profibus-DP M12 connector DeviceNet



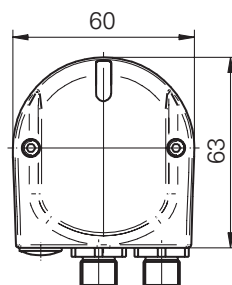
CANopen, DeviceNet M12



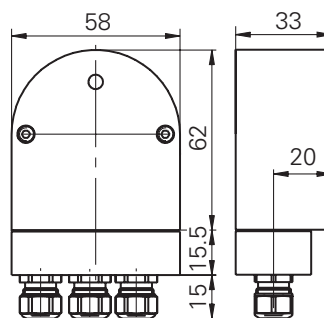
EtherCAT



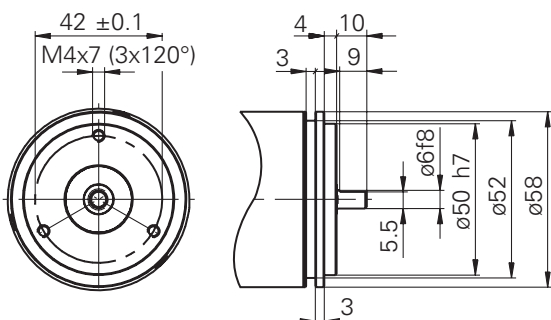
SSI



Lightbus



GBAMW, GBMMW synchro flange



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