

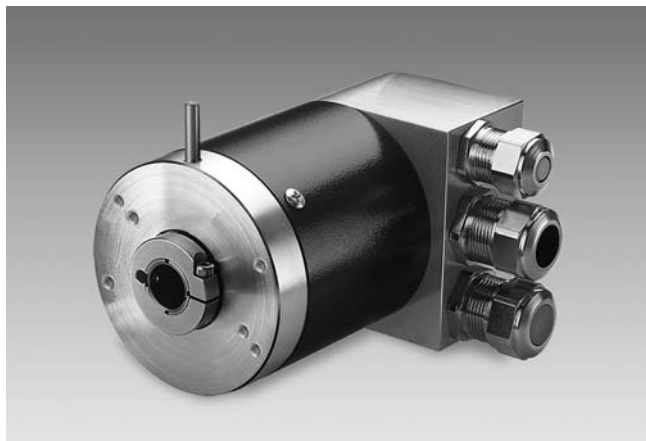
# Absolute encoders - modular bus covers

Magnetical sensing, end shaft

Multiturn encoder 12 bit ST / 16 bit MT

CANopen / DeviceNet / EtherCAT / Profibus / SSI / Lightbus

GCMMS - *magtivo*



GCMMS with modular bus cover

## Features

- Encoder multiturn / bus cover
- Magnetic sensing
- Resolution: singleturn 12 bit, multiturn 16 bit
- End shaft  $\varnothing 12$  mm
- Encoder for heavy-duty applications
- New innovative sensing technology
- Modular bus interface concept
- CANopen/DeviceNet/EtherCAT/Profibus/SSI/fibre-optic
- Code continuity check optional by bus

## Technical data - electrical ratings

Voltage supply	10...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	$\leq 100$ mA (24 VDC)
Initializing time (typ.)	250 ms after power on
Interfaces	Profibus-DPV0 / V2, CANopen, DeviceNet, EtherCAT, Fiber-optic 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	$\pm 1^\circ$
Sensing method	Magnetic
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 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	$\varnothing 58$ mm
Shaft	$\varnothing 12$ mm end shaft
Protection DIN EN 60529	IP 54
Operating speed	$\leq 6000$ rpm (mechanical) $\leq 6000$ rpm (electric)
Starting torque	$\leq 0.015$ Nm
Rotor moment of inertia	20 gcm <sup>2</sup>
Materials	Housing: steel Flange: steel 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.	650 g
E-connection	Bus cover

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#### Part number

GCMMS.  20

#### 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

#### End shaft

- 0 End shaft ø12 mm without pin
- 1 End shaft ø12 mm with pin 15 mm
- B End shaft ø12 mm with pin 9.5 mm

CD with file descriptions is not included in the delivery. You may order them on CD as accessory free-of-charge under part number Z 150.022.

Matching bus covers are listed in the chapter "Accessories".

#### Accessories

##### Connectors and cables

Z 119.034 Connector for data cable fibre-optic

##### Mounting accessories

Z 119.024 Torque support and spring washer for encoders with 9.5 mm pin

Z 119.041 Torque support by rubber buffer element for encoders with 15 mm pin

Z 119.050 Spring coupling

Z 119.053 Spring coupling height 19.1 mm

Z 119.070 Spring coupling height 29.1 mm

Z 119.072 Spring coupling for encoders with ø58 mm housing, hole distance 73 mm

Z 119.073 Spring coupling for encoders with ø58 mm housing, hole distance 68 mm

Z 119.076 Spring coupling for encoders with ø58 mm housing

Z 119.082 Spring coupling for encoders with ø58 mm housing, hole distance 63 mm

##### 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

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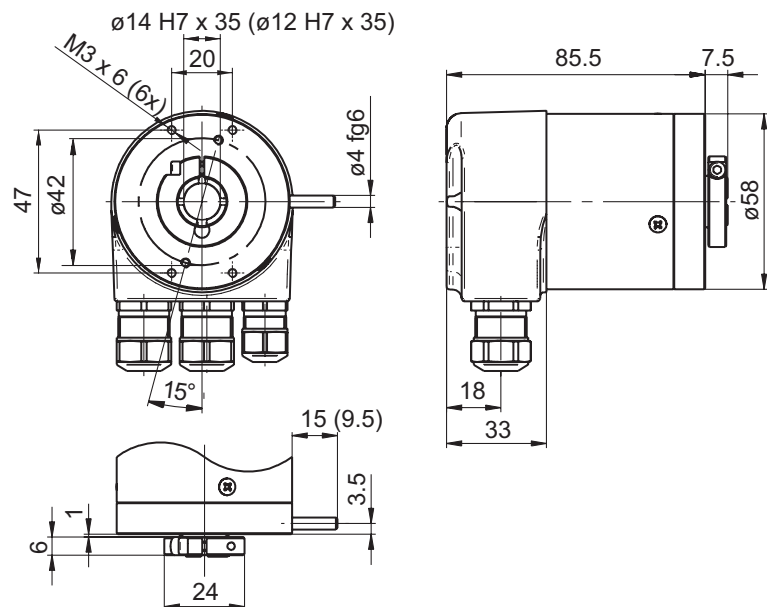
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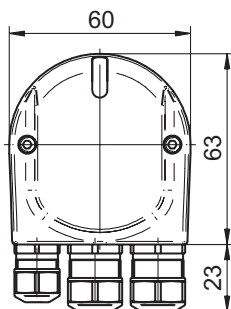
GCMMS - *magtivo*

## Dimensions

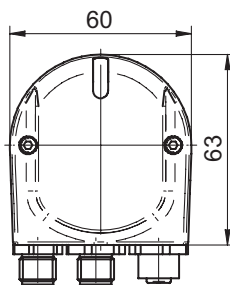
### GCMMS



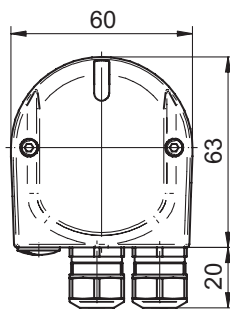
Profibus-DP, CANopen



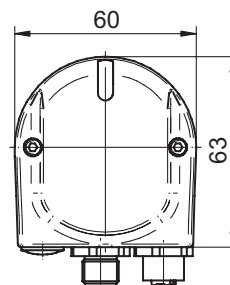
Profibus-DP - M12



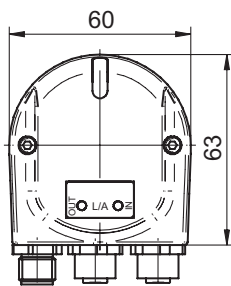
DeviceNet



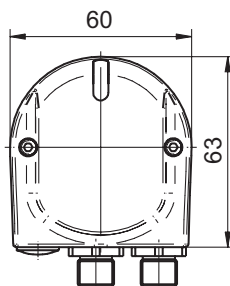
CANopen, DeviceNet M12



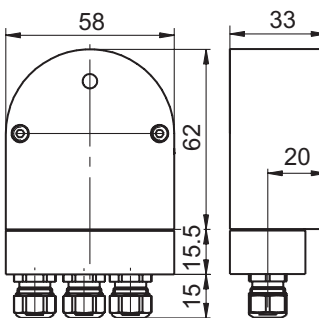
EtherCAT



SSI



Fibre-optic



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