

# Absolute encoders - modular bus covers

Hollow shaft max.  $\varnothing 50.8$  mm

Optical multiturn encoders 13 bit ST / 16 bit MT

CANopen / DeviceNet / Profibus

## G1MMH, G2MMH - *multivo*



G1MMH with modular bus cover

### 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	CANopen, DeviceNet, Profibus-DPV0
Function	Multiturn
User address	Rotary switch in bus cover
Steps per turn	$\leq 8192$ / 13 bit
Number of turns	$\leq 65536$ / 16 bit
Absolute accuracy	$\pm 0.025^\circ$
Sensing method	Optical
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

### Features

- Encoder multiturn / bus cover
- Optical sensing
- Resolution: singleturn 13 bit, multiturn 16 bit
- Hollow shaft of 1" and 2" diameter
- High flexibility in mounting and maintenance
- Resolution, baud rate, node ID optionally selectable
- Code continuity check optional by bus

### Optional

- Modular bus covers for SSI interface

### Technical data - mechanical design

Protection DIN EN 60529	IP 54
Materials	Housing: aluminium 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
Connection	Bus cover

### G1MMH

Dimensions (flange)	$\varnothing 90$ mm
Shaft	$\varnothing 16$ mm hollow shaft $\varnothing 20$ mm hollow shaft $\varnothing 25$ mm hollow shaft $\varnothing 25.4$ mm hollow shaft
Operating speed	$\leq 3800$ rpm (mechanical) $\leq 6000$ rpm (electric)
Starting torque	$\leq 0.35$ Nm
Rotor moment of inertia	2000 gcm <sup>2</sup>
Weight approx.	890 g

### G2MMH

Dimensions (flange)	$\varnothing 116$ mm
Shaft	$\varnothing 50.8$ mm hollow shaft
Operating speed	$\leq 2000$ rpm (mechanical) $\leq 6000$ rpm (electric)
Starting torque	$\leq 0.5$ Nm
Rotor moment of inertia	11000 gcm <sup>2</sup>
Weight approx.	1200 g

# Absolute encoders - modular bus covers

Hollow shaft max.  $\varnothing 50.8$  mm

Optical multiturn encoders 13 bit ST / 16 bit MT

CANopen / DeviceNet / Profibus

**G1MMH, G2MMH - *multivo***

## Part number

Hollow shaft max.  $\varnothing 25.4$  mm

G1MMH.  20

		<u>Interface</u>
	3P32	Profibus-DPV0 / cable gland
	5P32	CANopen / cable gland
	8P22	DeviceNet / cable gland
		<u>Hollow shaft</u>
2		Hollow shaft $\varnothing 25.4$ mm with pin 15 mm
3		Hollow shaft $\varnothing 20$ mm with pin 15 mm
4		Hollow shaft $\varnothing 16$ mm with pin 15 mm
5		Hollow shaft $\varnothing 25$ mm with pin 15 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.

Hollow shaft max.  $\varnothing 50.8$  mm

G2MMH.  20

		<u>Interface</u>
	3P32	Profibus-DPV0 / cable gland
	5P32	CANopen / cable gland
	8P22	DeviceNet / cable gland
		<u>Hollow shaft</u>
2		Hollow shaft $\varnothing 50.8$ mm with pin 15 mm
3		Hollow shaft $\varnothing 50$ mm with pin 15 mm

## Accessories

### Mounting accessories for G1MMH

Z 119.037	Rubber buffer element 18.5 mm long, as torque support
Z 119.039	Set of adjusting angles as torque support
Z 119.040	Shoulder screw M5 as torque support
Z 119.041	Torque support by rubber buffer element for encoders with 15 mm pin
Z 119.043	Spring coupling for GX and G1
Z 119.050	Spring coupling

### Mounting accessories for G2MMH

Z 119.037	Rubber buffer element 18.5 mm long, as torque support
Z 119.039	Set of adjusting angles as torque support
Z 119.040	Shoulder screw M5 as torque support
Z 119.041	Torque support by rubber buffer element for encoders with 15 mm pin
Z 119.050	Spring coupling

### Programming accessories

Z 150.022	CD with describing files & manuals
-----------	------------------------------------

# Absolute encoders - modular bus covers

Hollow shaft max.  $\varnothing 50.8$  mm

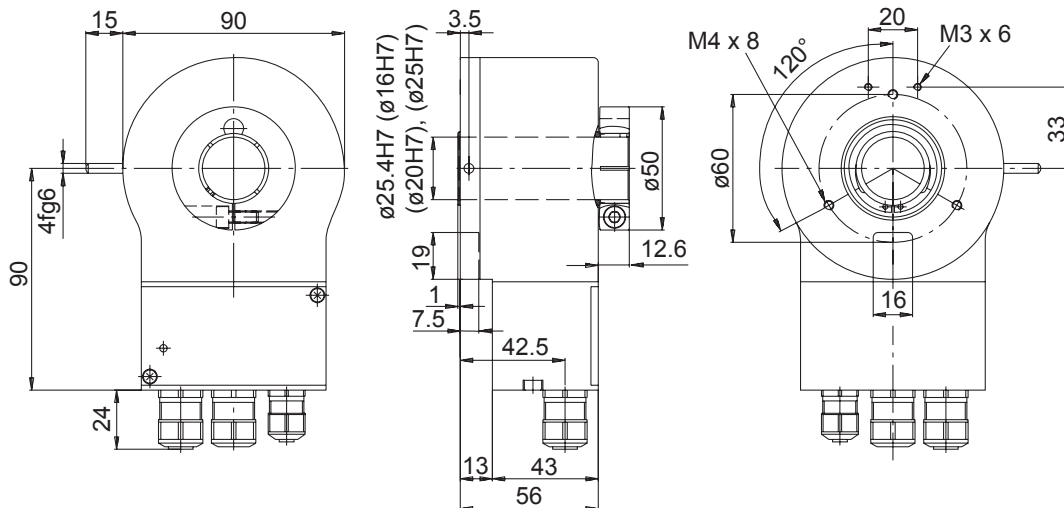
Optical multiturn encoders 13 bit ST / 16 bit MT

CANopen / DeviceNet / Profibus

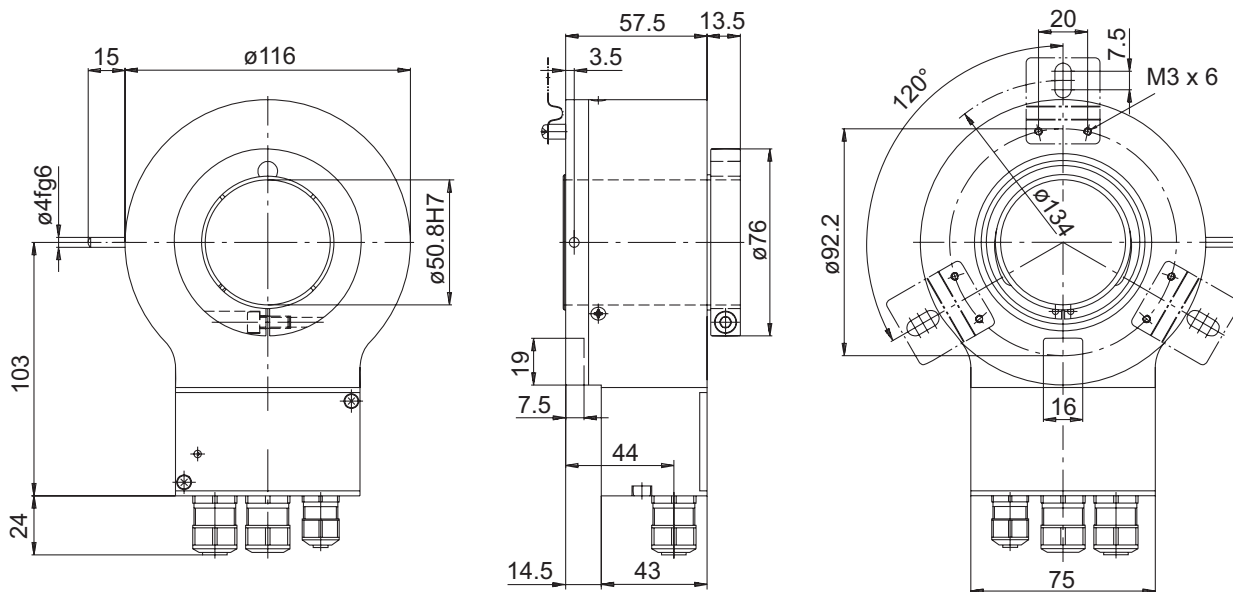
## G1MMH, G2MMH - *multivo*

### Dimensions

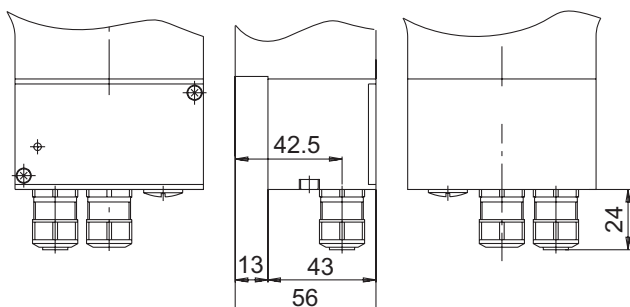
#### G1MMH - CANopen, Profibus



#### G2MMH - CANopen, Profibus



#### Bus cover DeviceNet



# Absolute encoders - modular bus covers

Hollow shaft max.  $\varnothing 50.8$  mm

Optical multiturn encoders 13 bit ST / 16 bit MT

CANopen / DeviceNet / Profibus

G1MMH, G2MMH - *multivo*

---