

Overview

- Encoder multiturn / bus cover
- Optical sensing method
- Resolution: singleturn 13 bit, multiturn 16 bit
- Blind hollow shaft $\varnothing 12 \dots 15$ mm
- Extreme compact design
- Interface: Profibus-DP
- Code continuity check optional by bus
- Maximum resistant against magnetic fields



Technical data

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
Interface	Profibus
Function	Multiturn
Device address	Rotary switch in bus cover (type-specific)
Steps per revolution	≤ 8192 / 13 bit
Number of revolutions	≤ 65536 / 16 bit
Absolute accuracy	$\pm 0,025^\circ$
Sensing method	Optical
Code	Binary
Code sequence	CW/CCW programmable
Incremental output	2048 pulses A90°B (optional)
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-4
Programmable parameters	Steps per revolution Number of revolutions Preset Scaling Rotating direction
Diagnostic function	Position or parameter error Multiturn sensing
Status indicator	DUO-LED integrated in bus cover

Technical data - electrical ratings

Approval UL approval / E63076

Technical data - mechanical design

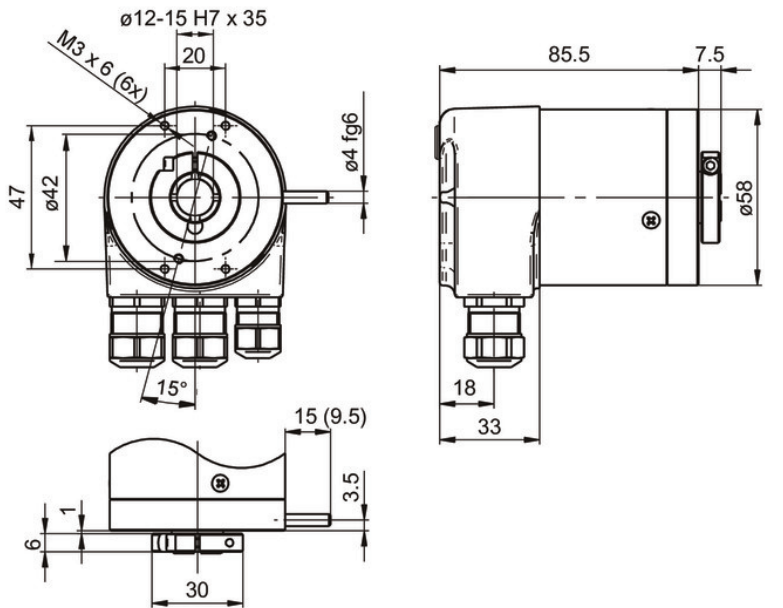
Size (flange)	$\varnothing 58$ mm
Shaft type	$\varnothing 12 \dots 15$ mm (blind hollow shaft)
Protection EN 60529	IP 54 IP 65
Operating speed	≤ 6000 rpm (mechanical) ≤ 6000 rpm (electric)
Starting acceleration	≤ 1000 U/s ²
Starting torque	$\leq 0,015$ Nm (+25 °C, IP 54) $\leq 0,03$ Nm (+25 °C, IP 65)
Rotor moment of inertia	20 gcm ²
Material	Housing: steel Flange: aluminium Bus cover: zinc die-cast
Operating temperature	-25...+85 °C -40...+85 °C (optional)
Relative humidity	95 % non-condensing
Resistance	EN 60068-2-6 Vibration 10 g, 16-2000 Hz EN 60068-2-27 Shock 200 g, 6 ms
Weight approx.	500 g
Connection	Bus cover

GXMMS

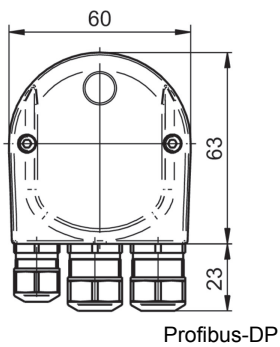
Blind hollow shaft up to $\varnothing 15$ mm

Optical multturn encoders 13 bit ST / 16 bit MT

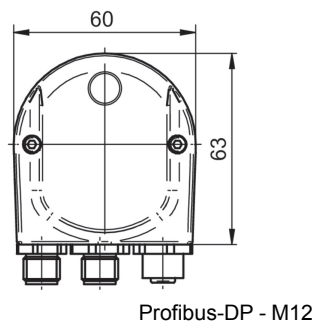
Dimensions



GXAMS, GXMMS



Profibus-DP



Profibus-DP - M12

Ordering reference

		GXMMS	.	#	20	####
Product						
		GXMMS				
Blind hollow shaft						
ø12 mm, without pin						0
ø12 mm, without pin / IP 65						2
ø12 mm, pin 15 mm						1
ø12 mm, pin 9.5 mm						B
ø14 mm, without pin						4
ø14 mm, pin 15 mm						5
ø14 mm, pin 9.5 mm						F
ø15 mm, pin 15 mm / IP 54						U
ø15 mm, without pin / IP 65						W
Voltage supply						
10...30 VDC						20
Interface						
Profibus-DPV0 / cable gland						3P32
Profibus-DPV0 / connector M12						3PA2
Profibus-DPV2 / cable gland						3V32
Profibus-DPV2 / connector M12						3VA2

Accessories
Mounting accessories

10140347	Torque support and spring washer for encoders with 9.5 mm pin (Z 119.024)
10139345	Torque support by rubber buffer for encoders with 15 mm pin (Z 119.041)
11066120	Mounting kit 056
11034106	Spring coupling for motor's fan guard (Z 119.053)
10165157	Spring coupling for encoders with ø58 mm housing, hole distance 73 mm (Z 119.072)
11034121	Spring coupling for encoders with ø58 mm housing, hole distance 68 mm (Z 119.073)
11034123	Spring coupling for one-side attachment, length 115 mm (Z 119.076)
11003562	Spring coupling for encoders with ø58 mm housing, hole distance 63 mm (Z 119.082)
11098229	Clamping ring set 16/30x6 - stainless steel (Z 119.092)

Connectors and cables

11034355	Cable connector M12, 4-pin, on both sides, D-coded, 5 m cable (Z 185.E05)
11034304	Female connector M12, 8-pin, straight, 2 m cable (Z 174.003)
11034305	Female connector M12, 8-pin, straight, 5 m cable (Z 174.005)

Programming accessories

10146710	CD with describing files & manuals (Z 150.022)
----------	--