

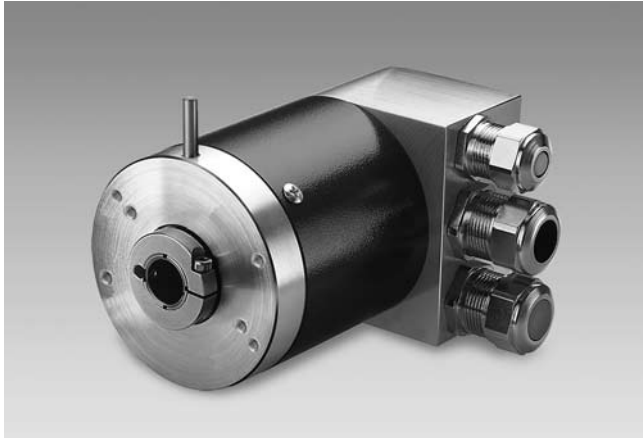
Absolute encoders - modular bus covers

Optical sensing, end shaft

Single and multiturn encoder 13 bit ST / 16 bit MT

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

GXAMS, GXMMS - *multivo*



GXMMS with modular bus cover

Features

- Encoder single- or multiturn / bus cover
- Optical sensing
- Resolution: singleturn 13 bit, multiturn 16 bit
- End shaft $\varnothing 12$ mm / $\varnothing 14$ mm
- Extreme compact design
- Modular bus interfaces
- 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	≤ 100 mA (24 VDC)
Initializing time (typ.)	250 ms after power on
Interfaces	Profibus-DPV0 / V2, CANopen, DeviceNet, EtherCAT, Fibre-optic bus, SSI
User address	Rotary switch in bus cover (type-specific)
Steps per turn	8192 / 13 bit
Incremental output	2048 pulses A90°B (optional)
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
GXAMS	
Function	Singleturn
GXMMS	
Function	Multiturn
Number of turns	65536 / 16 bit

Technical data - mechanical design

Housing	$\varnothing 58$ mm
Shaft	$\varnothing 12$ mm end shaft $\varnothing 14$ mm end shaft
Protection DIN EN 60529	IP 54
Operating speed	≤ 6000 rpm (mechanical) ≤ 6000 rpm (electric)
Starting torque	≤ 0.015 Nm IP 54
Rotor moment of inertia	20 gcm ²
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.	700 g
Connection	Bus cover

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Part number

Singleturn

GXAMS. 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		Fibre-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
4	End shaft ø14 mm without pin
5	End shaft ø14 mm with pin 15 mm
F	End shaft ø14 mm with pin 9.5 mm

Multiturn

GXMMS. 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		Fibre-optic / cable gland
2PA2		SSI / connector M12

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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 "Accessories".

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Accessories

Connectors and cables

Z 119.034	Connector for data cable fibre-optic
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Mounting accessories

Z 119.024	Torque support and spring washer for encoders with 9.5 mm pin
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Z 119.041	Torque support by rubber buffer element for encoders with 15 mm pin
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Z 119.050	Spring coupling
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Z 119.053	Spring coupling height 19.1 mm
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Z 119.070	Spring coupling height 29.1 mm
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Z 119.072	Spring coupling for encoders with ø58 mm housing, hole distance 73 mm
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Z 119.073	Spring coupling for encoders with ø58 mm housing, hole distance 68 mm
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Z 119.076	Spring coupling for encoders with ø58 mm housing
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Z 119.082	Spring coupling for encoders with ø58 mm housing, hole distance 63 mm
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Programming accessories

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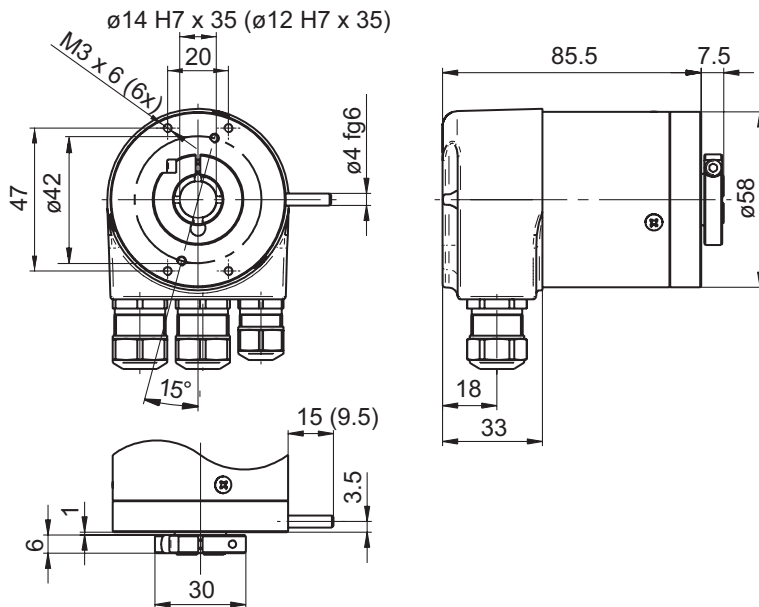
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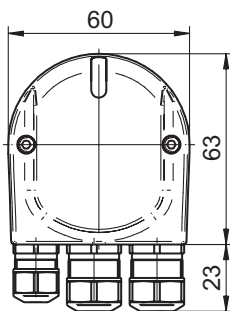
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Dimensions

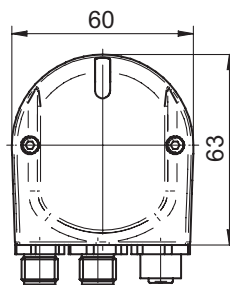
GXAMS, GXMMS



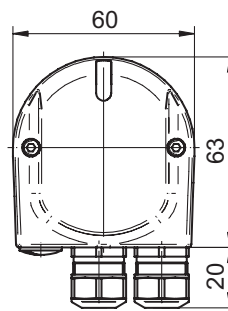
Profibus-DP/CANopen



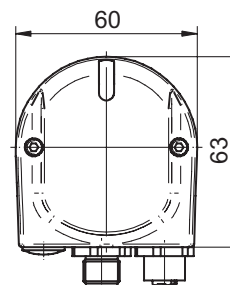
Profibus-DP - M12



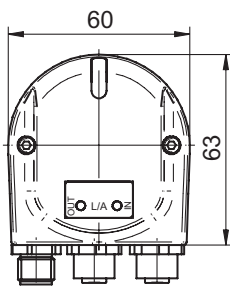
DeviceNet



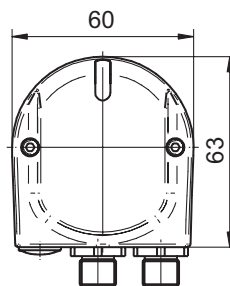
CANopen/DeviceNet M12



EtherCAT



SSI



Fibre-optic

