

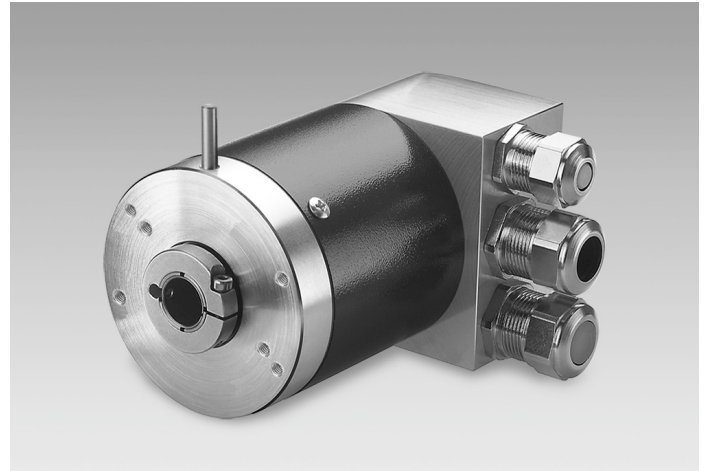
## GXAMS

 Blind hollow shaft up to  $\varnothing 15$  mm

Optical singleturn encoders 13 bit

### Overview

- Encoder singleturn / bus cover
- Optical sensing method
- Resolution: 13 bit
- Blind hollow shaft  $\varnothing 12 \dots 15$  mm
- Extreme compact design
- CANopen®, EtherCAT, EtherNet/IP, SAEJ1939, PROFINET, Profibus, SSI
- 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	$\leq 100$ mA (24 VDC)
Initializing time typ.	250 ms after power on
Interface	CANopen® EtherCAT EtherNet/IP Profibus PROFINET SAE J1939 SSI
Function	Singleturn
Device adress	Rotary switch in bus cover (type-specific)
Steps per revolution	$\leq 8192$ / 13 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 Preset Scaling Rotating direction

#### Technical data - electrical ratings

Diagnostic function	Position or parameter error
Status indicator	DUO-LED integrated in bus cover
Approval	UL approval / E63076

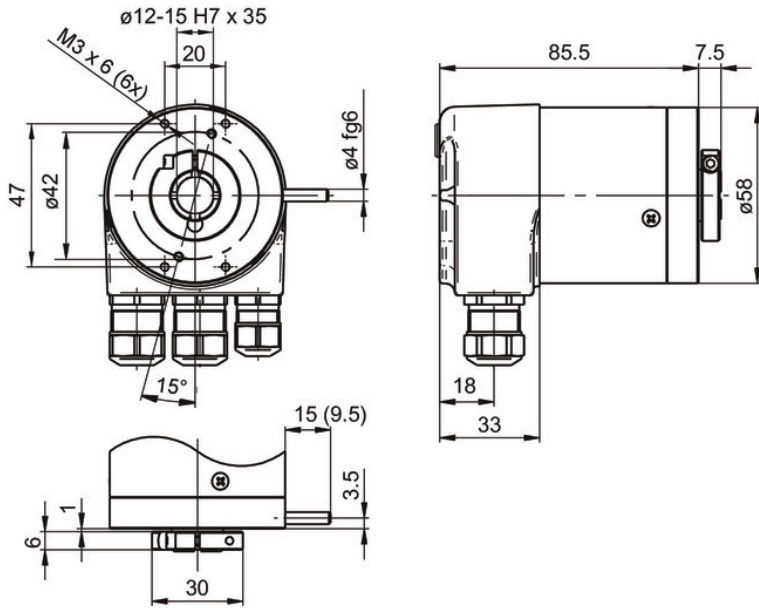
#### Technical data - mechanical design

Size (flange)	$\varnothing 58$ mm
Shaft type	$\varnothing 12 \dots 15$ mm (blind hollow shaft)
Protection EN 60529	IP 54 IP 65
Operating speed	$\leq 6000$ rpm (mechanical) $\leq 6000$ rpm (electric)
Starting acceleration	$\leq 1000$ U/s <sup>2</sup>
Starting torque	$\leq 0,015$ Nm (+25 °C, IP 54) $\leq 0,03$ Nm (+25 °C, IP 65)
Rotor moment of inertia	20 gcm <sup>2</sup>
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

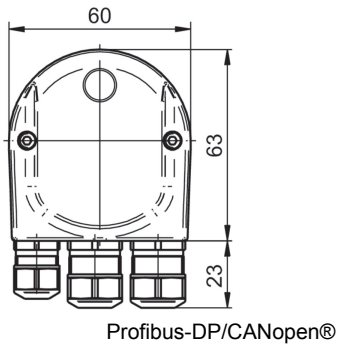
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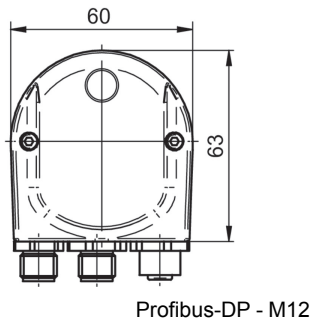
## Dimensions



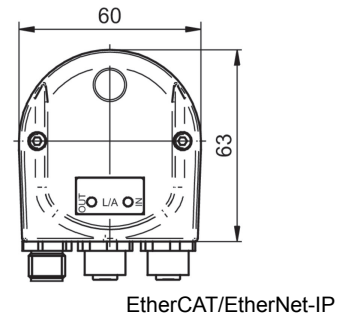
GXAMS, GXMMS



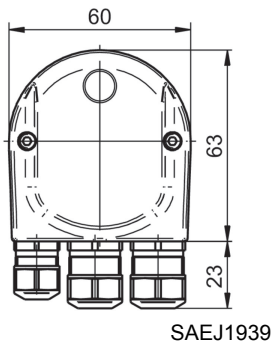
Profibus-DP/CANopen®



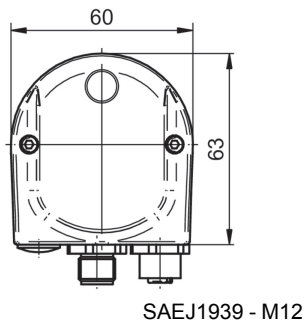
Profibus-DP - M12



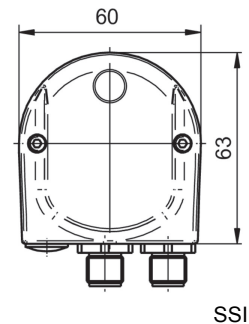
EtherCAT/EtherNet-IP



SAEJ1939



SAEJ1939 - M12



SSI

**Ordering reference**

		GXAMS	.	#	20	####
<b>Product</b>		GXAMS				
<b>Blind hollow shaft</b>						
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				
<b>Voltage supply</b>						
10...30 VDC		20				
<b>Interface</b>						
Profibus-DPV0 / cable gland		3P32				
Profibus-DPV0 / connector M12		3PA2				
Profibus-DPV2 / cable gland		3V32				
Profibus-DPV2 / connector M12		3VA2				
PROFINET / connector M12		3EA2				
EtherCAT / connector M12		EPA6				
EtherNet/IP / connector M12		8EA2				
CANopen® / cable gland		5P32				
CANopen® / connector M12		5PA2				
SSI / connector M12		2PA2				
SAEJ1939 / cable gland		5B32				
SAEJ1939 / connector M12		5BA2				

**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)

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#### 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)
11034193	Programming cable for encoders with SSI bus cover, CD with software and manual (Z 139.008)