

BMMH 58 flexible

 Blind hollow shaft up to $\varnothing 15$ mm

Magnetic multiturn encoders 12 bit ST / 18 bit MT

Overview

- Encoder multiturn / bus cover
- Robust magnetic sensing
- Resolution: singleturn 12 bit, multiturn 18 bit
- Modular fieldbus interfaces
- CANopen®/DeviceNet/EtherCAT/EtherNet-IP/SAEJ1939/PROFINET/POWERLINK/Profibus
- Resolution and zero point programmable
- High resistance to shock and vibrations
- Operating temperature -40...+85 °C



Technical data

Technical data - electrical ratings

Voltage supply	10...30 VDC
Consumption w/o load	≤ 200 mA (24 VDC)
Initializing time	≤ 250 ms after power on
Interface	CANopen® DeviceNet EtherCAT EtherNet/IP Profibus-DPV0 PROFINET POWERLINK SAE J1939
Function	Multiturn
Device address	Rotary switches in bus cover (type-specific, see data sheet bus cover)
Steps per revolution	≤ 4096 / 12 bit
Number of revolutions	≤ 262144 / 18 bit
Sensing method	Magnetic
Angular accuracy	$\pm 0.5^\circ$
Repeatability	$\pm 0.3^\circ$
Code	Binary
Code sequence	CW default, programmable
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Programmable parameters	Steps per revolution Number of revolutions Preset Scaling Rotating direction

Technical data - electrical ratings

Diagnostic function	Multiturn sensing Position error
Status indicator	DUO-LED integrated in bus cover
Approval	UL approval / E217823

Technical data - mechanical design

Size (flange)	$\varnothing 58$ mm
Shaft type	$\varnothing 12$ mm (blind hollow shaft) $\varnothing 15$ mm (blind hollow shaft)
Protection EN 60529	IP 65 (without shaft seal) IP 67 (with shaft seal)
Operating speed	≤ 6000 rpm
Starting torque	≤ 2 Ncm (+20 °C, IP 65) ≤ 2.5 Ncm (+20 °C, IP 67)
Material	Housing: steel zinc-coated Flange: aluminium Bus cover: zinc die-cast Hollow shaft: stainless steel
Operating temperature	-40...+85 °C (see general information)
Relative humidity	95 %
Resistance	EN 60068-2-6 Vibration 30 g, 10-2000 Hz EN 60068-2-27 Shock 200 g, 6 ms
Weight approx.	480 g
Connection	Bus cover

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General information

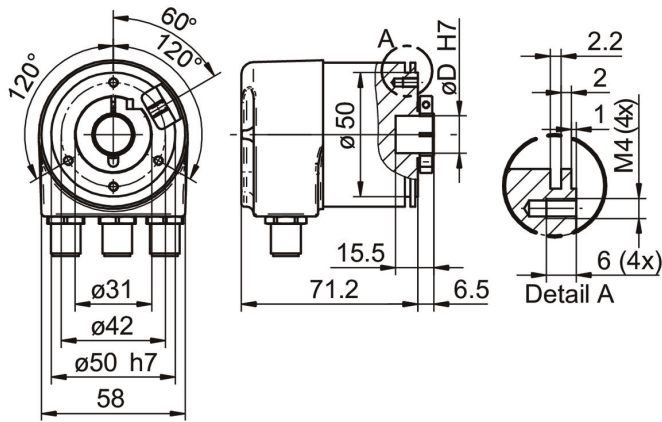
Self-heating interrelated to speed, protection, attachment method and ambient conditions as well electronics and supply voltage must be considered for precise thermal dimensioning. Self-heating is supposed to approximate 6 K (IP 65 protection) respectively 12 K (IP 67 protection) per 1000 rpm. Operating the encoder close to the maximum limits requires measuring the real prevailing temperature at the encoder flange.

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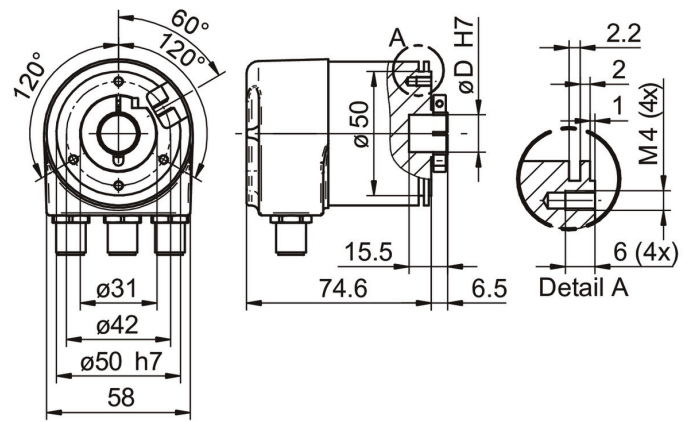
Blind hollow shaft up to $\varnothing 15$ mm

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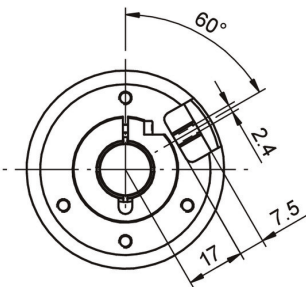
Dimensions



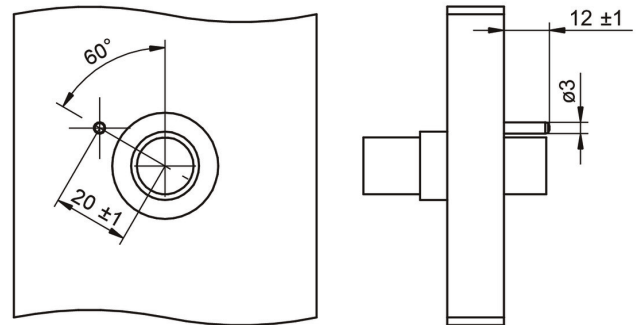
BMSH/BMMH 58 flexible, IP 65



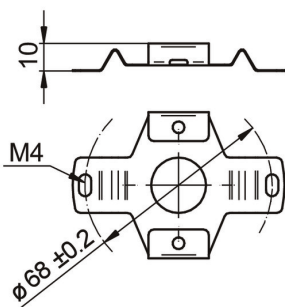
BMSH/BMMH 58 flexible, IP 67



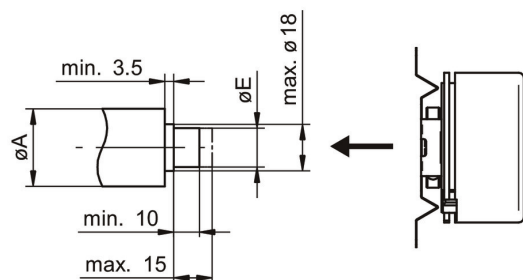
Torque pin support



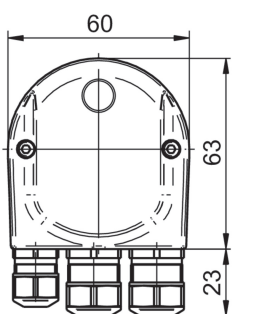
Bore torque pin



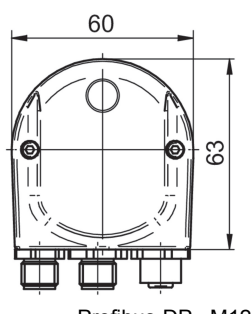
Set of spring washers



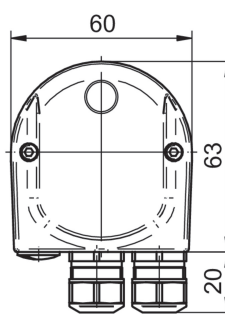
Hollow shaft mounting



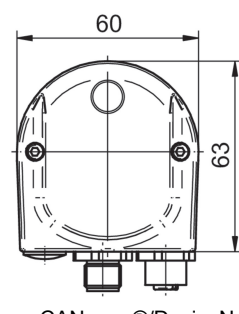
Profibus-DP/CANopen®



Profibus-DP - M12



DeviceNet



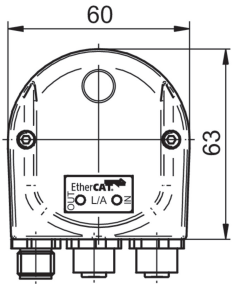
CANopen®/DeviceNet M12

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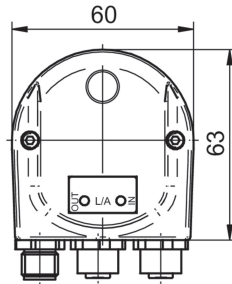
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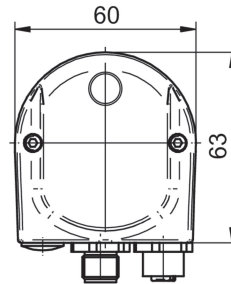
Dimensions



EtherCAT/EtherNet-IP



PROFINET/POWERLINK



SAEJ1939 - M12

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Ordering reference

	BMMH-58	S	1	N	###	12	/	##	#	#	##
Product	BMMH-58										
Flange	Synchro flange	S									
Operating temperature	-40...+85 °C		1								
Code	Binary			N							
Supply voltage / Interface	10...30 VDC / CANopen					24B					
	10...30 VDC / Profibus					24P					
	10...30 VDC / DeviceNet					24D					
	10...30 VDC / EtherCat (V5)					246					
	10...30 VDC / Profinet					24H					
	10...30 VDC / EtherNet/IP					24I					
	10...30 VDC / Powerlink					24L					
	10...30 VDC / SAE J1939					24J					
Resolution Singleturn	12 Bit							12			
Resolution Multiturn	16 Bit									16	
	18 Bit									18	
Protection class	Hollow shaft IP65										P
	Hollow shaft IP67										Q
Shaft diameter	Ø12 mm										2
	Ø15 mm										B
Connection	Encoder with buscover and cable radial										D
	Encoder with buscover and M12 connector radial										E

Accessories

Mounting accessories

11136718	Set of spring plate for encoders ø58 mm
10110616	Clamp set ø15 mm
10107540	Torque pin
10109520	Torque spring