

# Absolute encoders - modular bus covers

Shaft with clamping or synchro flange

Magnetic single- or multiturn encoders 12 bit ST / 18 bit MT

## BMSV 58, BMMV 58 flexible - MAGRES



BMMV 58K flexible with clamping flange

### Features

- Encoder single- or multiturn / bus cover
- Magnetic sensing
- Resolution: singleturn 12 bit, multiturn 18 bit
- Modular fieldbus interfaces
- High resistance to shock and vibrations
- Resolution and zero point programmable
- CANopen/DeviceNet/EtherCAT/EtherNet-IP/SAEJ1939  
PROFINET/Power over EtherCAT/POWERLINK  
Profibus
- Clamping or synchro flange

### Technical data - electrical ratings

Voltage supply	10...30 VDC
Consumption w/o load (typ.)	100 mA (24 VDC)
Initializing time (typ.)	170 ms after power on
Interfaces	CANopen, DeviceNet, EtherCAT, EtherNet/IP, PoE, Profibus-DPV0/V2, PROFINET, POWERLINK, SAEJ1939
User address	Rotary switch in bus cover
Steps per turn	≤4096 / 12 bit
Absolute accuracy	±1 °
Sensing method	Magnetic
Code	Binary
Code sequence	CW default, programmable
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-3
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 / E217823
<b>BMSV 58K, BMSV 58S</b>	
Function	Singleturn
<b>BMMV 58K, BMMV 58S</b>	
Function	Multiturn
Number of turns	≤262144 / 18 bit

### Technical data - mechanical design

Dimensions (flange)	ø58 mm
Protection DIN EN 60529	IP 65
Operating speed	≤12000 rpm (mechanical) ≤6000 rpm (electric)
Operating torque typ.	0.023 Nm
Materials	Housing: aluminium Flange: aluminium Bus cover: zinc die-cast
Operating temperature	-20...+85 °C
Relative humidity	95 %
Resistance	DIN EN 60068-2-6 Vibration 30 g, 10-2000 Hz DIN EN 60068-2-27 Shock 200 g, 6 ms
Weight approx.	480 g
Connection	Bus cover
<b>BMSV 58K, BMMV 58K</b>	
Shaft	ø10 mm (clamping flange)
Flange	Clamping flange
Shaft loading	≤40 N axial ≤60 N radial
<b>BMSV 58S, BMMV 58S</b>	
Shaft	ø6 mm (synchro flange)
Flange	Synchro flange
Shaft loading	≤10 N axial ≤20 N radial

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## Shaft with clamping or synchro flange

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#### BMSV 58, BMMV 58 flexible - MAGRES

#### Part number

#### Singleturn clamping flange

BMSV 58K1N   12/00  C0

			<u>Connection</u>
		G	Basic encoder without bus cover
		D	Complete encoder with bus cover / cable gland (w/o 246)
		E	Complete encoder with bus cover, M12
			<u>Shaft</u>
		C0	ø10 mm, IP 65
			<u>Resolution</u>
	12/00		12 bit singleturn
			<u>Voltage supply / signals</u>
24B	10...30 VDC / CANopen		
24D	10...30 VDC / DeviceNet		
24P	10...30 VDC / Profibus-DPV0		
24Q	10...30 VDC / Profibus-DPV2		
246	10...30 VDC / EtherCAT		
24I	10...30 VDC / EtherNet/IP		
242	10...30 VDC / Power over EtherCAT		
24L	10...30 VDC / POWERLINK		
24H	10...30 VDC / PROFINET		
24J	10...30 VDC / SAEJ1939		
24C	10...30 VDC / basic encoder		

#### Multiturn clamping flange

BMMV 58K1N   C0

			<u>Connection</u>
		G	Basic encoder without bus cover
		D	Complete encoder with bus cover / cable gland (w/o 246)
		E	Complete encoder with bus cover, M12
			<u>Shaft</u>
		C0	ø10 mm, IP 65
			<u>Resolution</u>
	12/18		12/18 bit single-/multiturn (only CANopen)
	12/16		12/16 bit single-/multiturn
			<u>Voltage supply / signals</u>
24B	10...30 VDC / CANopen		
24D	10...30 VDC / DeviceNet		
24P	10...30 VDC / Profibus-DPV0		
24Q	10...30 VDC / Profibus-DPV2		
246	10...30 VDC / EtherCAT		
24I	10...30 VDC / EtherNet/IP		
242	10...30 VDC / Power over EtherCAT		
24L	10...30 VDC / POWERLINK		
24H	10...30 VDC / PROFINET		
24J	10...30 VDC / SAEJ1939		
24C	10...30 VDC / basic encoder		

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Shaft with clamping or synchro flange

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## BMSV 58, BMMV 58 flexible - MAGRES

### Part number

#### Singleturn synchro flange

BMSV 58S1N   12/00  C6

			Connection
		G	Basic encoder without bus cover
		D	Complete encoder with bus cover / cable gland (w/o 246)
		E	Complete encoder with bus cover, M12
			<u>Shaft</u>
		C6	ø6 mm, IP 65
			<u>Resolution</u>
	12/00		12 bit singleturn
			<u>Voltage supply / signals</u>
24B	10...30 VDC / CANopen		
24D	10...30 VDC / DeviceNet		
24P	10...30 VDC / Profibus-DPV0		
24Q	10...30 VDC / Profibus-DPV2		
246	10...30 VDC / EtherCAT		
24I	10...30 VDC / EtherNet/IP		
242	10...30 VDC / Power over EtherCAT		
24L	10...30 VDC / POWERLINK		
24H	10...30 VDC / PROFINET		
24J	10...30 VDC / SAEJ1939		
24C	10...30 VDC / basic encoder		

#### Multiturn synchro flange

BMMV 58S1N    C6

			Connection
		G	Basic encoder without bus cover
		D	Complete encoder with bus cover / cable gland (w/o 246)
		E	Complete encoder with bus cover, M12
			<u>Shaft</u>
		C6	ø6 mm, IP 65
			<u>Resolution</u>
	12/18		12/18 bit single-/multiturn (only CANopen)
	12/16		12/16 bit single-/multiturn
			<u>Voltage supply / signals</u>
24B	10...30 VDC / CANopen		
24D	10...30 VDC / DeviceNet		
24P	10...30 VDC / Profibus-DPV0		
24Q	10...30 VDC / Profibus-DPV2		
246	10...30 VDC / EtherCAT		
24I	10...30 VDC / EtherNet/IP		
242	10...30 VDC / Power over EtherCAT		
24L	10...30 VDC / POWERLINK		
24H	10...30 VDC / PROFINET		
24J	10...30 VDC / SAEJ1939		
24C	10...30 VDC / basic encoder		

CD with file descriptions is not included in the delivery. You may order them on CD as accessory free-of-charge under part number 10147362.

# Absolute encoders - modular bus covers

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##### Accessories

##### Connectors and cables

10160565	Cable connector/connector M12, EtherCAT, straight, 5 m
10144720	Female connector M12, 5-pin, A-coded, straight, shielded, 2 m
10153968	Female connector M12, 5-pin, A-coded, straight
10157909	Cable with male/female M12, Profibus, shielded, straight, B-coded, 2 m
10159389	Cable with male/female M12, Profibus, shielded, straight, B-coded, 0.3 m (stub line)
10157911	Cable with male/female M12, Profibus, shielded, angled, B-coded, 2 m

##### Mounting accessories for BMSV 58K, BMMV 58K

10252773	Clamp set $\varnothing 15$ mm
11053277	Bellows coupling aluminium/stainless steel 10 mm

##### Mounting accessories for BMSV 58S, BMMV 58S

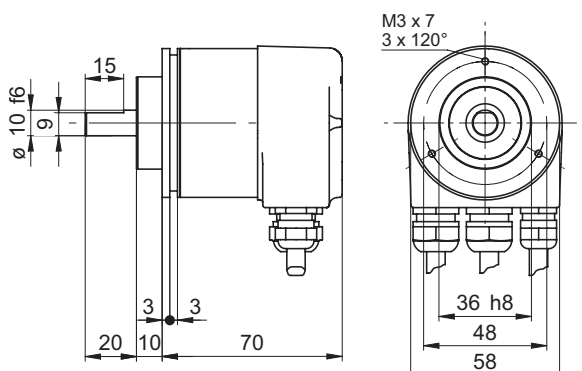
10252773	Clamp set $\varnothing 15$ mm
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##### Programming accessories

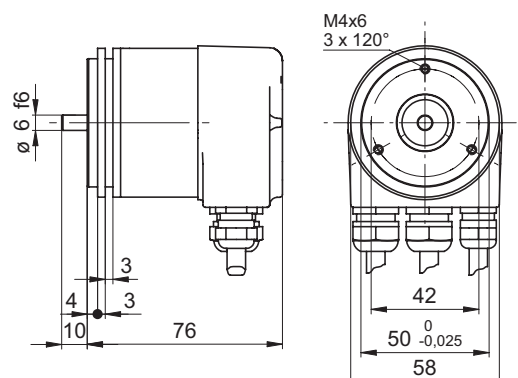
10147362	CD-ROM with GSD-/EDS-/XML files and user manuals
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##### Dimensions

BMSV/BMMV 58 flexible clamping flange, bus cover



BMSV/BMMV 58 flexible synchro flange, bus cover



# Absolute encoders - modular bus covers

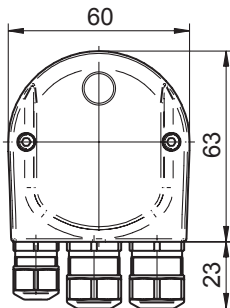
Shaft with clamping or synchro flange

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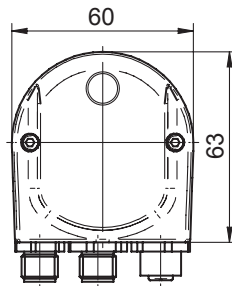
BMSV 58, BMMV 58 flexible - MAGRES

## Dimensions

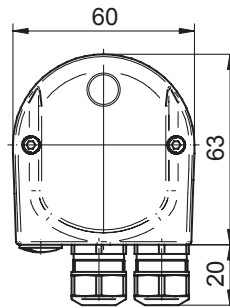
Profibus-DP/CANopen



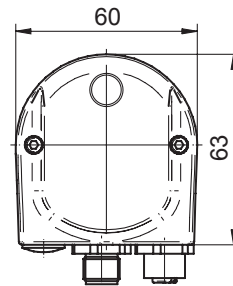
Profibus-DP - M12



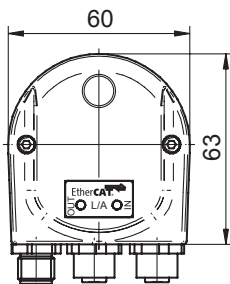
DeviceNet



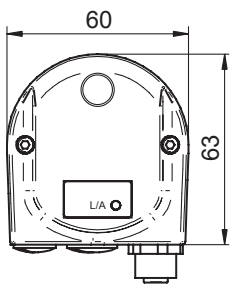
CANopen/DeviceNet M12



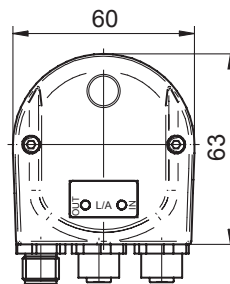
EtherCAT/EtherNet-IP



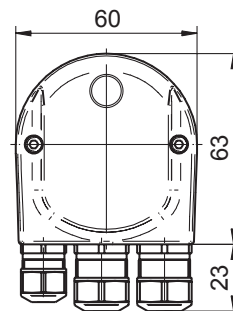
Power over EtherCAT



PROFINET/POWERLINK



SAEJ1939



SAEJ1939 - M12

