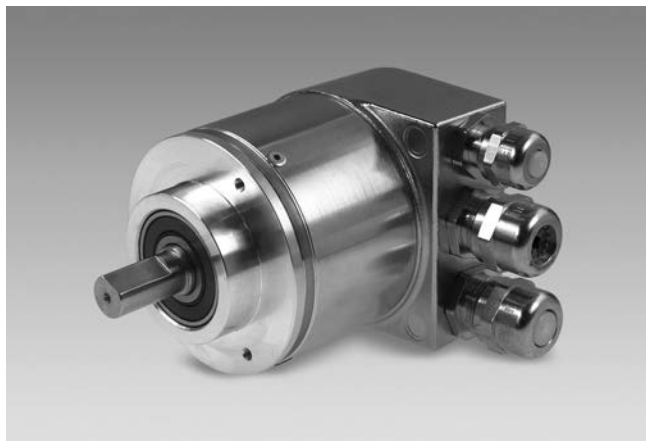


Absolute encoders - modular bus covers

Solid 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
- 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
- Solid shaft with clamping or synchro flange

Technical data - electrical ratings

| | |
|---------------------------|---|
| Voltage supply | 10...30 VDC |
| Consumption w/o load | ≤200 mA (24 VDC) |
| Initializing time | ≤250 ms after power on |
| Interfaces | CANopen®, DeviceNet, EtherCAT, EtherNet/IP, Profibus-DPV0/V2, PROFINET, POWERLINK, SAE J1939 |
| Device address | Rotary switches in bus cover (type-specific, see data sheet bus cover) |
| Steps per revolution | ≤4096 / 12 bit |
| Sensing method | Magnetic |
| Angular accuracy | ±0.5 ° |
| Repeatability | ±0.3 ° |
| 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 Rotating direction |
| Diagnostic functions | Multiturn sensing Position error |
| Status indicator | DUO-LED integrated in bus cover |
| Approval | UL approval / E217823 |
| BMSV 58K, BMSV 58S | |
| Function | Singleturn |
| BMMV 58K, BMMV 58S | |
| Function | Multiturn |
| Number of revolutions | ≤262144 / 18 bit |

Technical data - mechanical design

| | |
|---------------------------|---|
| Size (flange) | ø58 mm |
| Protection DIN 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) |
| Admitted shaft load | ≤40 N axial ≤80 N radial |
| Materials | Housing: steel zinc-coated Flange: aluminium Bus cover: zinc die-cast Solid shaft: stainless steel |
| Operating temperature | -40...+85 °C (see general information) |
| Relative humidity | 95 % |
| Resistance | DIN EN 60068-2-6 Vibration 30 g, 10-2000 Hz DIN EN 60068-2-27 Shock 250 g, 6 ms |
| Weight approx. | 480 g |
| Connection | Bus cover |
| BMSV 58K, BMMV 58K | |
| Shaft type | ø10 x 20 mm, solid shaft with flat (clamping flange) |
| Flange | Clamping flange |
| BMSV 58S, BMMV 58S | |
| Shaft type | ø6 x 10 mm, solid shaft with flat (synchro flange) |
| Flange | Synchro flange |

Absolute encoders - modular bus covers

Solid shaft with clamping or synchro flange

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

BMSV 58, BMMV 58 flexible - MAGRES

Part number

Singleturn clamping flange

BMSV 58K1N

| | | | | |
|--|-------|--|---|--|
| | 12/00 | | 0 | |
|--|-------|--|---|--|

| | | | | |
|---------------------------------|--|--|--|---|
| | | | | |
| | | | | <u>Connection</u> |
| | | | | D Encoder with bus cover / cable gland (CANopen, DeviceNet, Profibus) |
| | | | | E Encoder with bus cover, M12 |
| | | | | <u>Solid shaft</u> |
| | | | | 0 ø10 mm, clamping flange |
| | | | | <u>Protection</u> |
| | | | | C IP 65 |
| | | | | N IP 67 |
| | | | | <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 | | | | |
| 24L 10...30 VDC / POWERLINK | | | | |
| 24H 10...30 VDC / PROFINET | | | | |
| 24J 10...30 VDC / SAEJ1939 | | | | |

Multiturn clamping flange

BMMV 58K1N

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| | | | 0 | |
|--|--|--|---|--|

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|---------------------------------|--|--|--|---|
| | | | | |
| | | | | <u>Connection</u> |
| | | | | D Encoder with bus cover / cable gland (CANopen, DeviceNet, Profibus) |
| | | | | E Encoder with bus cover, M12 |
| | | | | <u>Solid shaft</u> |
| | | | | 0 ø10 mm, clamping flange |
| | | | | <u>Protection</u> |
| | | | | C IP 65 |
| | | | | N IP 67 |
| | | | | <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 | | | | |
| 24L 10...30 VDC / POWERLINK | | | | |
| 24H 10...30 VDC / PROFINET | | | | |
| 24J 10...30 VDC / SAEJ1939 | | | | |

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

Absolute encoders - modular bus covers

Solid shaft with clamping or synchro flange

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

BMSV 58, BMMV 58 flexible - MAGRES

Part number

Singleturn synchro flange

BMSV 58S1N

| | | | | |
|--|-------|--|---|--|
| | 12/00 | | 6 | |
|--|-------|--|---|--|

| | | | | | |
|--|-------|-----------------------------|---|---|--|
| | | | | | |
| | | | | D | Connection Encoder with bus cover / cable gland (CANopen, DeviceNet, Profibus) |
| | | | | E | Encoder with bus cover, M12 |
| | | | 6 | | Solid shaft ø6 mm, synchro flange |
| | | | | | Protection |
| | | | C | | IP 65 |
| | | | N | | IP 67 |
| | | | | | Resolution |
| | 12/00 | | | | 12 bit singleturn |
| | | | | | Voltage supply / signals |
| | 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 | | | |
| | 24L | 10...30 VDC / POWERLINK | | | |
| | 24H | 10...30 VDC / PROFINET | | | |
| | 24J | 10...30 VDC / SAEJ1939 | | | |

Multiturn synchro flange

BMMV 58S1N

| | | | | |
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| | | | | | |
| | | | | D | Connection Encoder with bus cover / cable gland (CANopen, DeviceNet, Profibus) |
| | | | | E | Encoder with bus cover, M12 |
| | | | 6 | | Solid shaft ø6 mm, synchro flange |
| | | | | | Protection |
| | | | C | | IP 65 |
| | | | N | | IP 67 |
| | | | | | Resolution |
| | 12/18 | | | | 12/18 bit single-/multiturn (only CANopen) |
| | 12/16 | | | | 12/16 bit single-/multiturn |
| | | | | | Voltage supply / signals |
| | 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 | | | |
| | 24L | 10...30 VDC / POWERLINK | | | |
| | 24H | 10...30 VDC / PROFINET | | | |
| | 24J | 10...30 VDC / SAEJ1939 | | | |

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Absolute encoders - modular bus covers

Solid shaft with clamping or synchro flange
Magnetic single- or multiturn encoders 12 bit ST / 18 bit MT

BMSV 58, BMMV 58 flexible - MAGRES

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 3 K (IP 65 protection) respectively 8 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.

Accessories

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

Programming accessories

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

Absolute encoders - modular bus covers

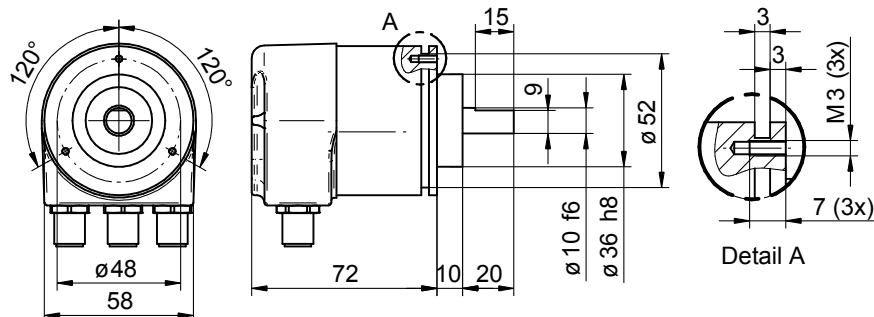
Solid shaft with clamping or synchro flange

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

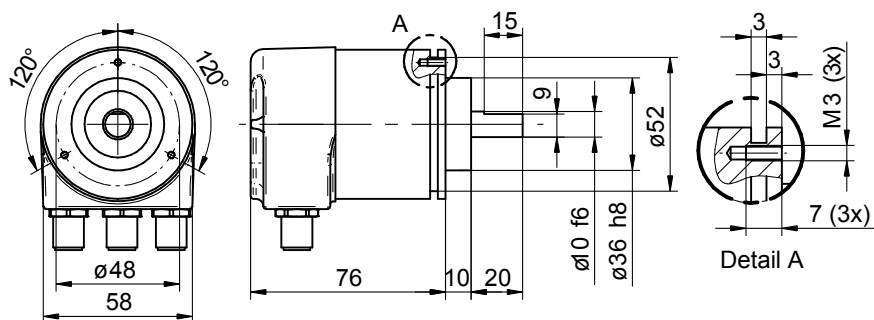
BMSV 58, BMMV 58 flexible - MAGRES

Dimensions

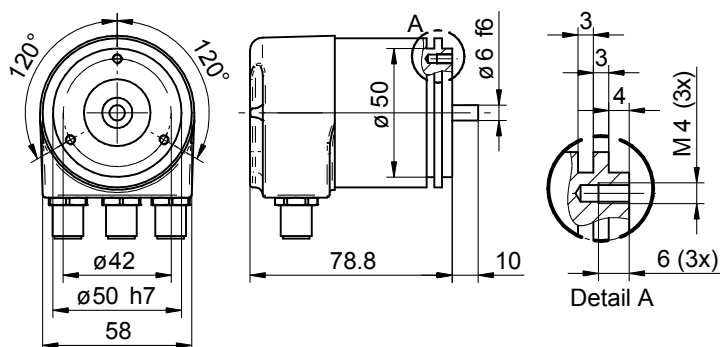
BMSV/BMMV 58 flexible clamping flange, IP 65



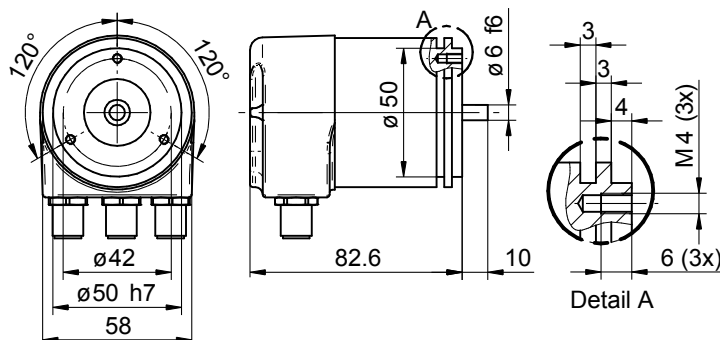
BMSV/BMMV 58 flexible clamping flange, IP 67



BMSV/BMMV 58 flexible synchro flange, IP 65



BMSV/BMMV 58 flexible synchro flange, IP 67



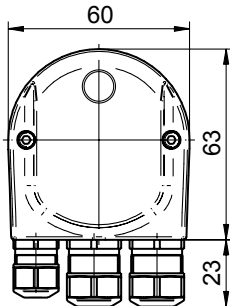
Absolute encoders - modular bus covers

Solid shaft with clamping or synchro flange
Magnetic single- or multiturn encoders 12 bit ST / 18 bit MT

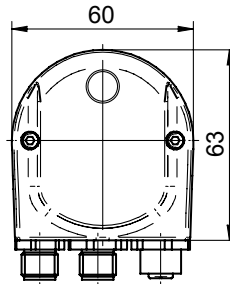
BMSV 58, BMMV 58 flexible - MAGRES

Dimensions

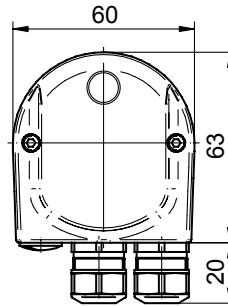
Profibus-DP/CANopen®



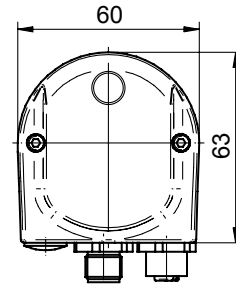
Profibus-DP - M12



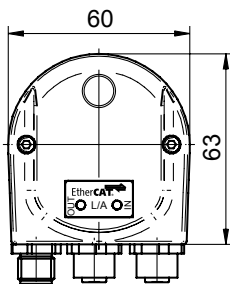
DeviceNet



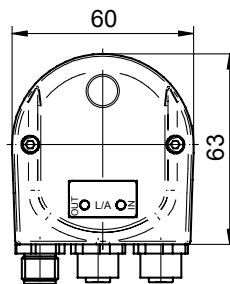
CANopen®/DeviceNet M12



EtherCAT/EtherNet-IP



PROFINET/POWERLINK



SAEJ1939 - M12

