

Magnetic absolute single-turn shaft encoder

BMSV – MAGRES

CANopen

features

- single-turn encoder / CANopen
- magnetic sensing principle
- resolution: 12 bit
- high resistance against shock and vibration
- integrated fieldbus
- resolution and zero point programmable
- clamping or servo flange



58K



58S

general data

voltage supply	10 - 30 VDC
max. supply current no load	typ. 100 mA (at 24 VDC)
output circuit protocol	CAN-Bus Standard ISO / DIS 11898 CANopen
profile	CANopen CIA, DS-301 V4.01 DSP-305 V1.0, DS-406 V3.0
specification	CAN 2.0B
operation modes	Event-triggered / Time-triggered Remotely-requested Sync (cyclic) / Sync (acyclic)
signal code	natural binary code
max. resolution	12 bit (1 step = 5'16'')
max. error limit	±1°
repeatability	0,3°
max. baud rate	1 Mbit/s
direction of rotation	looking at the flange, position counts up as the shaft rotates clockwise (CW), programmable

mechanical data

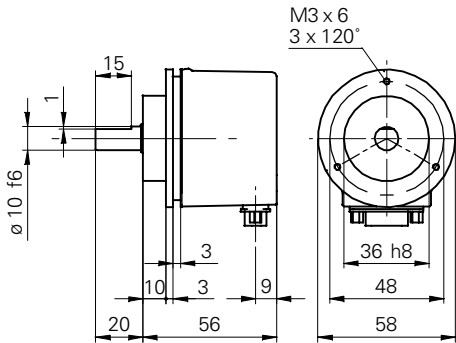
max. revolutions	12'000 rpm (mechanical) 6'000 rpm (electrical)
moment of inertia C6 C0	typ. 11,8 x 10 ⁻⁷ kgm ² typ. 17,8 x 10 ⁻⁷ kgm ²
torque	typ. 2,3 cNm (3'000 rpm / 20 °C)
max. shaft load C6 C0	axial: 10 N radial: 20 N axial: 40 N radial: 60 N
product life	depending on ambient conditions (typ. 10 ⁹ revolutions)
protection class	IP 65
material	housing: aluminium flange: aluminium
weight	approx. 300 g

ambient conditions

temperature range	-20...+85 °C
relative humidity	max. relative humidity 95%
vibration	IEC 60068-2-6 (≤ 300 m/s ² / 10 - 2'000 Hz)
shock	IEC 60068-2-27 (≤ 1'000 m/s ² / 6 ms)
noise immunity	EN 61000-6-2
emitted interference	EN 61000-6-3

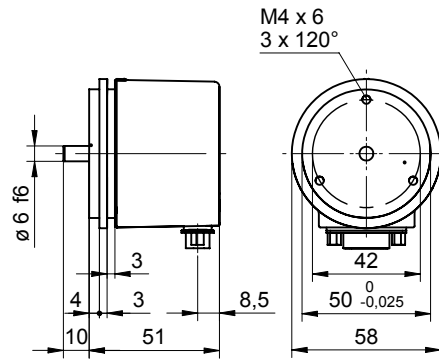
dimensions clamping flange (K)

-F

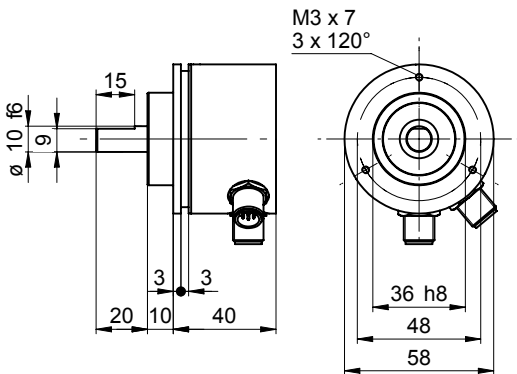


dimensions servo flange (S)

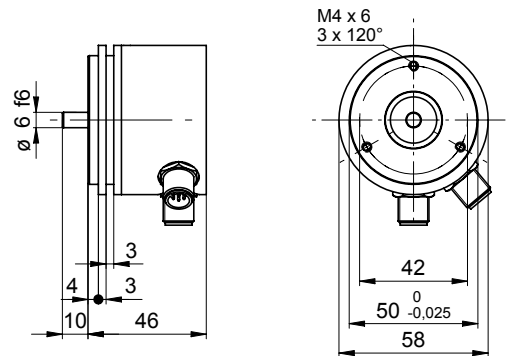
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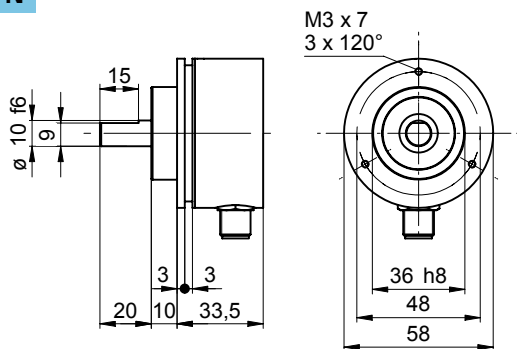
-M



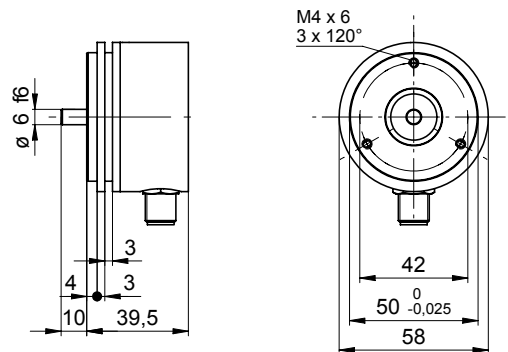
-M



-N



-N



Note

Mounting drawings see end of chapter.

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Magnetic absolute single-turn shaft encoder

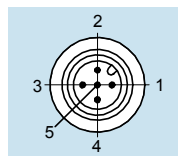
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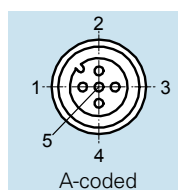
assignment connector D-Sub male CANopen (F)

pin	signal	description
1	d.u.	do not use
2	CAN_L	bus line (dominant LOW)
3	CAN_GND	CAN ground
4	d.u.	do not use
5	n.c.	-
6	0 V	voltage supply
7	CAN_H	bus line (dominant HIGH)
8	n.c.	-
9	+Vs	voltage supply

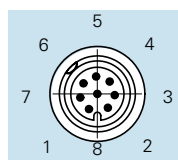
assignment connector 2 x M12 male/female (M)



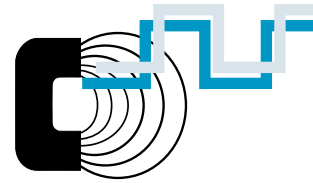
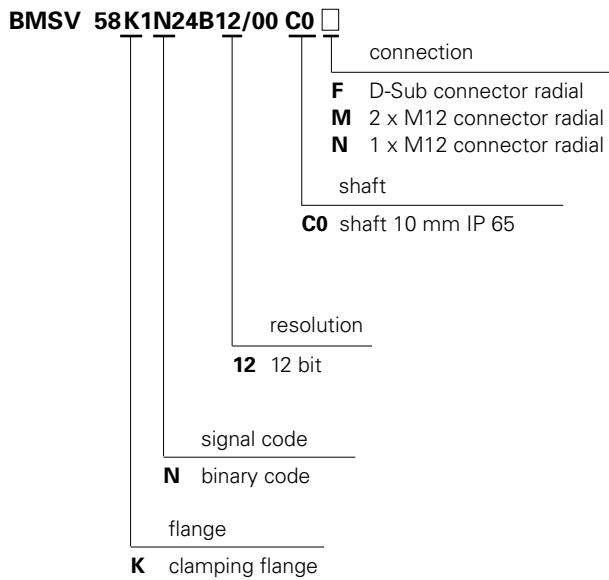
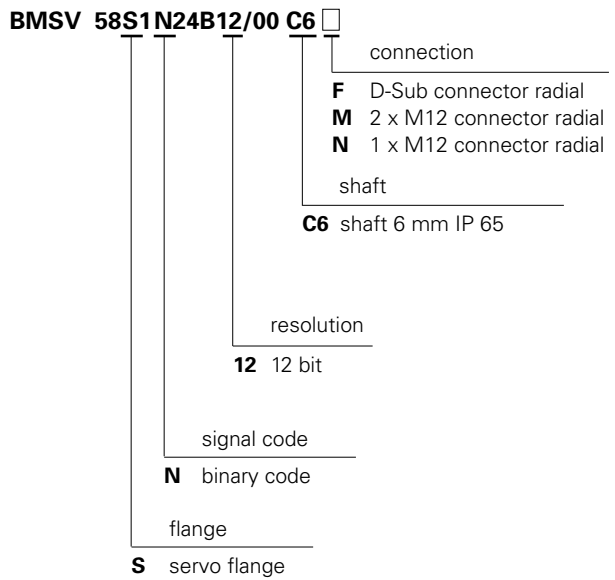
pin	signal	description
1	n.c.	-
2	+Vs	voltage supply 10...30 VDC
3	GND	ground related to +Vs
4	CAN_H	bus line (dominant HIGH)
5	CAN_L	bus line (dominant LOW)



assignment connector 1 x M12 male (N)



pin	signal	description
1	GND	voltage supply
2	+Vs	voltage supply
3	CAN_H	bus line (dominant HIGH)
4	CAN_L	bus line (dominant LOW)
5	CAN_GND	CAN ground
6	CAN_GND	CAN ground
7	CAN_L	bus line (dominant LOW)
8	CAN_H	bus line (dominant HIGH)


order designation BMSV 58K

order designation BMSV 58S

accessories

CD-ROM with GSD-/EDS-/XML- files and manuals	part nr. 147362
clamp set	part nr. 252773
D-Sub connector angled CAN-Bus couplings	part nr. 145023 see chapter accessories