

# Magnetic absolute single-turn shaft encoder

## BMSV – MAGRES

### DeviceNet

#### features

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

#### general data

voltage supply	10 - 30 VDC
max. supply current no load	typ. 100 mA (at 24 VDC)
output circuit	CAN-Bus Standard ISO / DIS 11898
protocol	DeviceNet
profile	Device Profile for Encoder V 1.0
operating modes	I/O-Polling, Cyclic, Change of State
signal code	natural binary code
max. resolution	12 bit (1 step = 5'16'')
max. error limit	±1°
repeatability	0,3°
max. baud rate	500 kbit/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	typ. $11,8 \times 10^{-7}$ kgm <sup>2</sup>
C0	typ. $17,8 \times 10^{-7}$ kgm <sup>2</sup>
torque	typ. 2,3 cNm (3'000 rpm / 20 °C)
max. shaft load	
C6	axial: 10 N      radial: 20 N
C0	axial: 40 N      radial: 60 N
product life	depending on ambient conditions (typ. 10 <sup>9</sup> revolutions)
max. protection class	IP 65
material	housing: aluminium flange: aluminium
weight	approx. 300 g

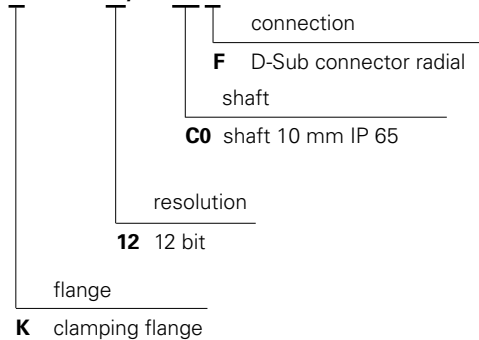


58K

58S

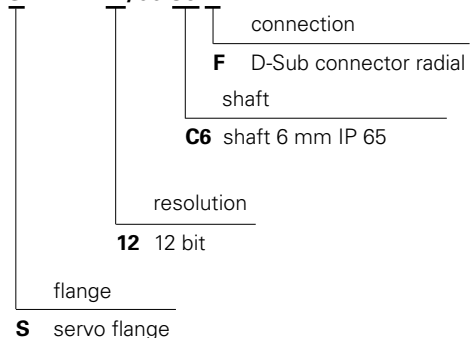
#### order designation BMSV 58K

**BMSV 58K1N24D12/00 C0 F**



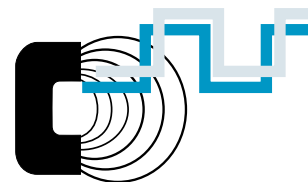
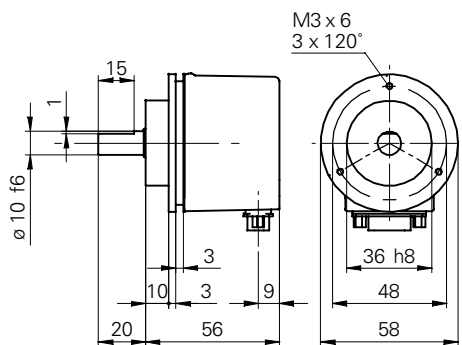
#### order designation BMSV 58S

**BMSV 58S1N24D12/00 C6 F**



#### ambient conditions

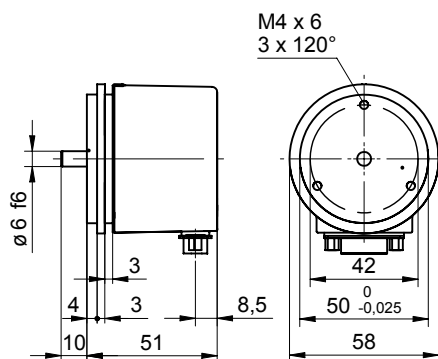
temperature range	20...+85 °C
relative humidity	max. relative humidity 95%
vibration	IEC 60068-2-6 (≤ 300 m/s <sup>2</sup> / 10 - 2'000 Hz)
shock	IEC 60068-2-27 (≤ 1'000 m/s <sup>2</sup> / 6 ms)
noise immunity	EN 61000-6-2
emitted interference	EN 61000-6-3


**dimensions**
**-K**

**assignment connector D-Sub male DeviceNet**

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	CAN_SHLD	CAN shield
6	0 V	voltage supply
7	CAN_H	bus line (dominant HIGH)
8	n.c.	-
9	+Vs	voltage supply

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**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

**-S**

**Note**

Mounting drawings see end of chapter.