

Magnetic absolute multi-turn shaft encoder

BMMV – MAGRES

Profibus-DP

features

- multi-turn encoder / Profibus-DP
- magnetic sensing principle
- resolution: single-turn 13 bit and multi-turn 16 bit
- integrated fieldbus
- high resistance against shock and vibration
- resolution and zero point programmable
- clamping or servo flange

general data

voltage supply	10 - 30 VDC
max. supply current no load	typ. 100 mA (24 VDC)
bus protocol	Profibus-DP
Profibus features	device class 1 and 2
default setting	user address 03
max. resolution single-turn	13 bit (1 step = 2' 38'')
max. resolution multi-turn	16 bit (65'536 revolutions)
max. error limit	±1°
repeatability	0,3°
direction of rotation	looking at the flange, position counts up as the shaft rotates clockwise (CW), programmable

mechanical data

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

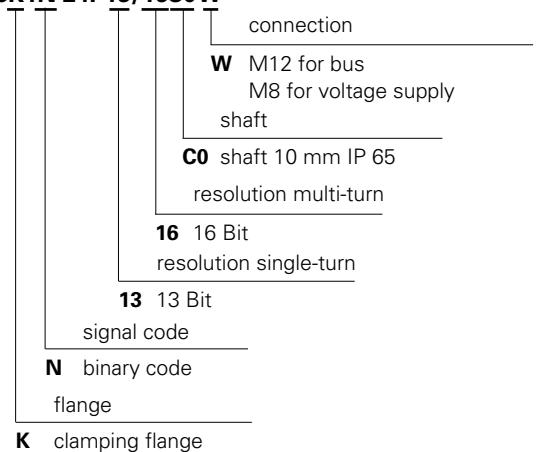


58K

58S

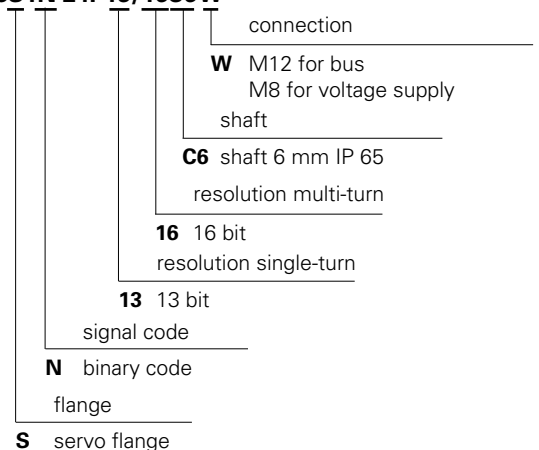
order designation BMMV 58K

BMMV 58K1N 24P13/16C0W



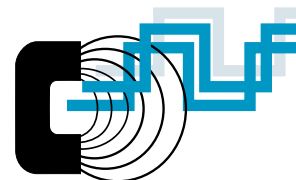
order designation BMMV 58S

BMMV 58S1N 24P13/16C6W



ambient conditions

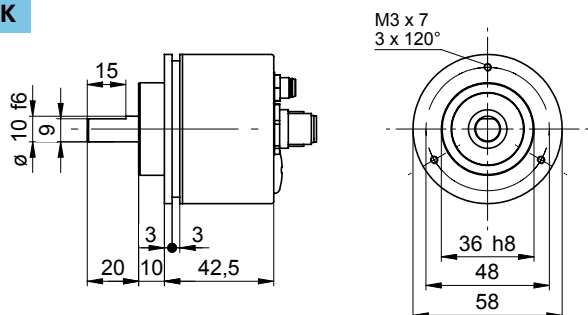
temperature range	-20...+85 °C
relative humidity	max. relative humidity 95%
vibration	IEC 60068-2-6 (≤ 300 m/s ² / 10 - 2'000 Hz)
shock	IEC 60068-2-27 (≤ 1000 m/s ² / 6 ms)
noise immunity	EN 61000-6-2
emitted interference	EN 61000-6-3



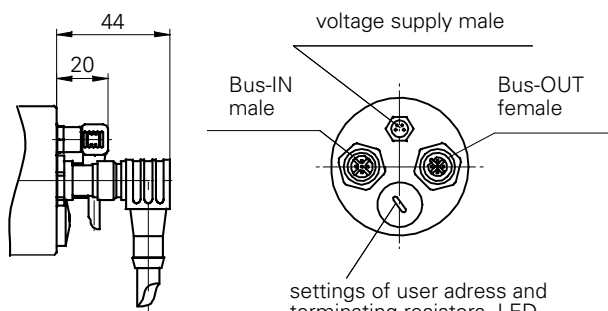
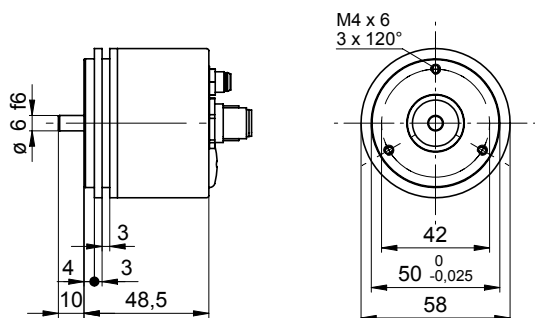
Profibus-DP

dimensions and connection dimensions

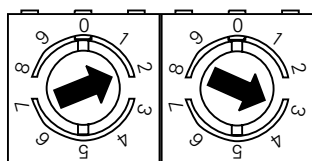
-K



-S



settings of user adress for Profibus-DP



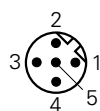
Address can be set with rotary switch.
Example: User address 23

settings of terminating resistors for Profibus-DP



ON = Last User
OFF = User X

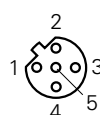
assignment M12 Bus-IN male



pin	signal	description
1	n.c.	-
2	A line green	cable green / Profibus-DP
3	n.c.	-
4	B line red	cable red / Profibus-DP
5	n.c.	-

B-coded

assignment M12 Bus-OUT female



pin	signal	description
1	+VsDP	VP Profibus +5 VDC ¹⁾
2	A line green	cable green / Profibus-DP
3	0 VDP	DGND Profibus ¹⁾
4	B line red	cable red / Profibus-DP
5	n.c.	-

B-coded

assignment M8 voltage supply



pin	signal	description
1	+Vs	voltage supply
2	n.c.	-
3	0 V	voltage supply
4	0 V	voltage supply

accessories

CD-ROM with GSD-/EDS-/XML-files and manuals		part nr. 147362
cable with M8 connector (female) for voltage supply, shielded connector straight	5 m	part nr. 148326
connector angled	5 m	part nr. 148328
cable with M12 connector (male) and M12 connector (female) for Bus-IN, Bus-OUT connector straight	2 m	part nr. 157909
	5 m	part nr. 157910
connector angled	2 m	part nr. 157911
	6 m	part nr. 157912
(application see page 5.19 fieldbus-accessories)		
spring clamp set		part nr. 252773
couplings and mounting adapters	see chapter accessories	

¹⁾ for optional external terminating resistor