

# Magnetic absolute-multiturn encoder

## BMMH – MAGRES

### CANopen

#### features

- robust multiturn encoder up to
  - 12 Bit singleturn resolution
  - 18 Bit multiturn resolution
- miniature housing
- CANopen interface integrated
- programmable resolution and preset-value

#### 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
specification	CAN 2.0B
protocol/profile	CANopen/CIA, DS-301 V4.01, DSP-305 V1.0, DS-406 V3.0
signal code	natural binary code
max. resolution singleturn	12 Bit (1 step = 5' 16'')
max. resolution multiturn	18 Bit (262'144 revolutions)
max error limit	± 1° *
repeatability	0.3°
max. baud rate	1 MBit/s
counter buffering	with lithium cell typ. 19 years
direction	programmable, default is increasing values with clockwise shaft rotation while viewing flange

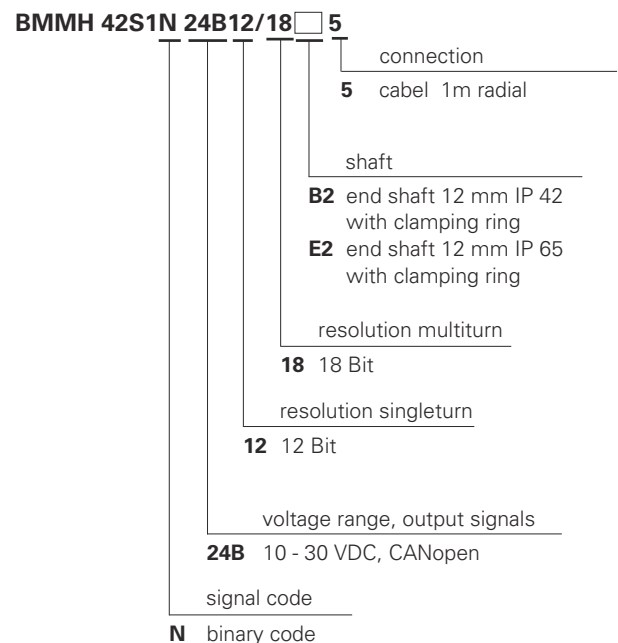
\*measured over full -20...+85°C temperature range

#### mechanical data

max. revolution	6'000 rpm
hollow shaft	∅ 12 mm H7 x 15
moment of inertia	12 x 10 <sup>-7</sup> kgm <sup>2</sup>
operation torque	typ. 0,93 cNm (3'000 rpm / 20 °C / IP 42)
product life	dependent on ambient conditions (typ. 10 <sup>9</sup> revolutions.)
max. protection class	shaft: IP 65 housing: IP 65
material	housing: steel flange: aluminium
weight	approx. 190 g

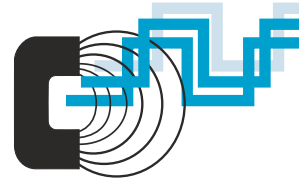


#### order designation

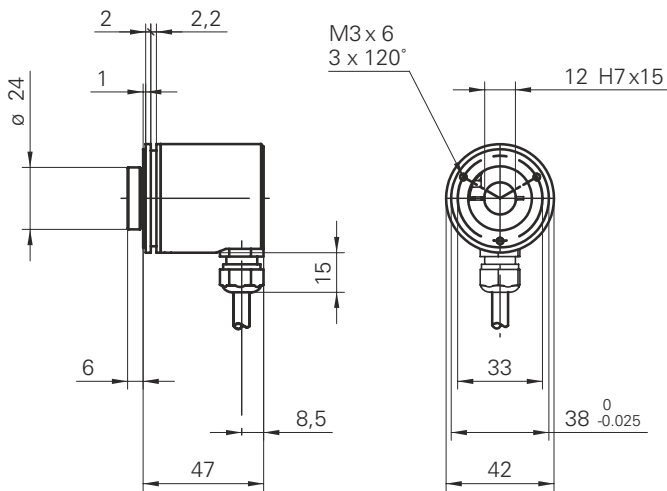


#### ambient conditions

temperature range	-20...+85 °C
humidity	max. rel. humidity 95%
vibration	IEC 60068-2-6 (≤ 300 m/s <sup>2</sup> / 10 - 2000 Hz)
shock	IEC 60068-2-27 (≤ 1000 m/s <sup>2</sup> / 11 ms)
noise immunity	EN 61000-6-2
emitted interference	EN 61000-6-3



### dimensions



### assignment cable

cable color	signal	description
brown	+Vs	voltage supply
white	0 V	voltage supply
green	CAN_H	bus line (dominant high)
yellow	CAN_L	bus line (dominant low)
grey	CAN_GND	CAN ground
pink	n.c.	not connected
blue	d.u.	do not use
red	d.u.	do not use
cable		8 x 0,14 mm <sup>2</sup>

### accessories

spring clamp set	part nr. 110616
field plate set	part nr. 138610
CD with EDS-files and manual	part nr. 147362 included in delivery
shaft adapter	(see accessories section)