

# Absolute multi-turn hollow shaft encoder

## BOMH – *Digitalizer*

### CANopen

#### features

- high resolution multi-turn encoder up to
  - 18 bit single-turn
  - 14 bit multi-turn
- integrated CANopen interface
- programmable bus parameter
- programmable scaling and preset values



#### general data

voltage supply	10 - 30 VDC
supply current no load	typ. 150 mA (at 24 VDC)
output circuit ISO/DIS 11898	CAN-bus, standard
specification	CAN 2.0B
protocol/profile	CANopen/CIA, DS-301 V4.01, DSP-305 V1.0 (LSS), DS-406 V3.0
signal coding	natural binary code
max. resolution single-turn	18 bit (1 step = 5")
multi-turn	14 bit (16'384 revolutions)
repeatability	0,012°
max. baud rate	1 Mbits/s
counter buffering	with Lithium cell typ. 19 years
direction of rotation	programmable, standard rising position values at view on the floor and clockwise rotation of the shaft (CW)

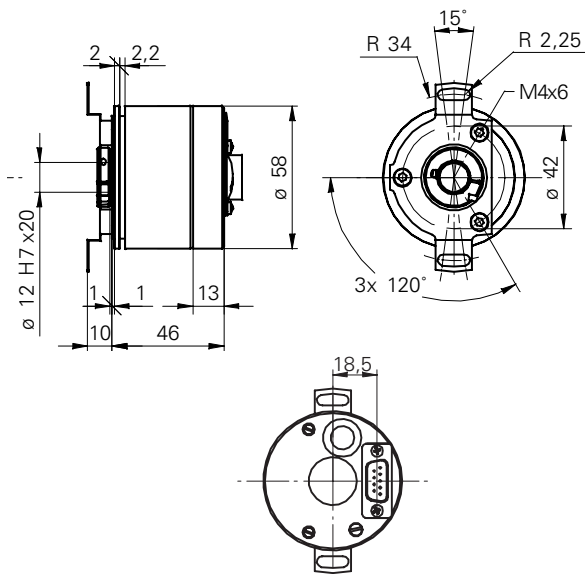
#### mechanical data

max. revolutions	mech. 6'000 rpm electr. 6'000 rpm
moment of inertia	typ. $18,4 \times 10^{-7}$ kgm <sup>2</sup>
torque	typ. 1,75 cNm (3'000 rpm / 20 °C / IP 42)
product life	depending on ambient conditions (typ. 10 <sup>9</sup> revolutions)
max. protection class	IP 65
material	housing: aluminum
weight	approx. 300 g

#### ambient conditions

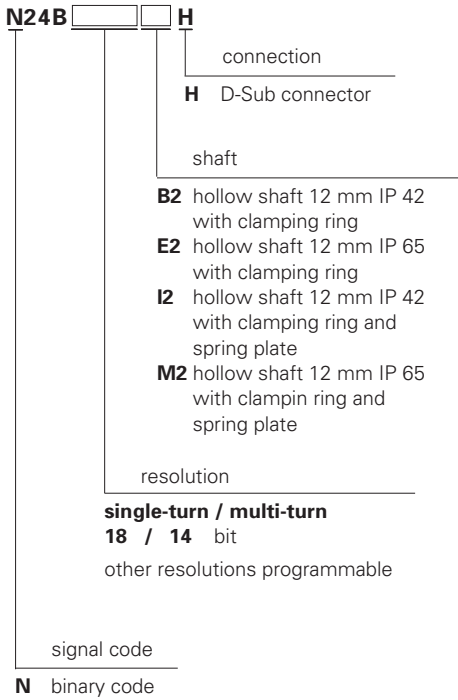
temperature range	-20...+85 °C
relative humidity	max. 95% non condensing
vibration (sine)	IEC 60068-2-6 ( $\leq 100$ m/s <sup>2</sup> / 10 - 2'000 Hz) 150 min per axis
vibration (random)	IEC 60068-2-64 ( $\leq 0,1$ g <sup>2</sup> /Hz / 20 - 1'000 Hz) 30 min per axis
shock	IEC 60068-2-27 ( $\leq 500$ m/s <sup>2</sup> / 11 ms) 10 pulses per axis and direction
noise immunity	EN 61000-6-2
emitted interference	EN 61000-6-3

**dimensions**



**order designation**

**BOMH 58S1 N24B**     **H**



**Note**

Mounting drawings see end of chapter.

Other versions on request.

**assignment D-Sub 9-pin male connector**

for connection reference **-H**

pin number	signals	description
1	n.c.	-
2	CAN_L	bus line (dominant LOW)
3	CAN_GND	CAN ground
4	n.c.	-
5	n.c.	-
6	GND	ground
7	CAN_H	bus line (dominant HIGH)
8	n.c.	-
9	+Vs	voltage supply

**accessories**

CD-ROM with GSD-/EDS-/XML-files and manuals	part nr. 147362
D-Sub connector angled	part nr. 145023
spring plate set	part nr. 136635
clamp set	part nr. 110616