

# Magnetic absolute singleturn encoder

## BMSH SSI - MAGRES

BMSH



### features

- 10 Bit singleturn resolution
- Zero-point programmable
- SSI interface



### general data

voltage supply	5 VDC ±10% (05C)
max. supply current (no load)	typ. 100 mA
output circuit	SSI, RS 422
connection	cable 8 x 0,14 mm <sup>2</sup>
steps/rev	1024
max. resolution	10 Bit (1 steps relates to = 21' 6")
pulse tolerance	±1°
switching frequency f max.	1 MHz
input signal	clock input, zero (zerosetting: < 0,4 V, > 2 ms off state: 3,3 V or open)
sense of rotation	looking at the <b>MAGRES</b> flange counts up as the shaft rotates clockwise (CW)

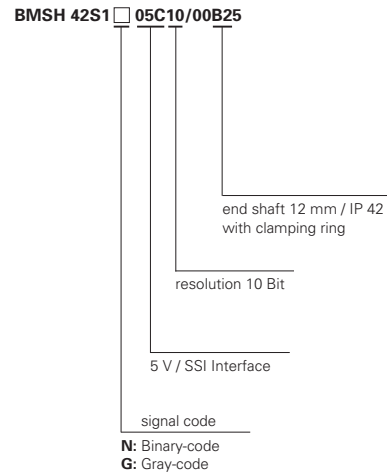
### mechanical data

max. revolutions	6'000 rev/min
rotor inertia	typ. 12 x 10 <sup>-7</sup> kgm <sup>2</sup>
torque	typ. 0,93 cNm (3000 rev/min 20 °C)
product life	depending on ambient conditions (typ. 10 <sup>9</sup> revolutions)
max. protection class	shaft IP 42 / housing IP 64
material	housing: inox/aluminum flange: aluminum
weight	approx. 120 g

### ambient conditions

temperature range	-20...+85 °C
relative humidity	max. relative humidity 95%
vibration	IEC 68 part 2-6 (≤ 100 m/s <sup>2</sup> / 10 - 200 Hz)
shock	IEC 68 part 2-27 (≤ 500 m/s <sup>2</sup> / 11 ms)

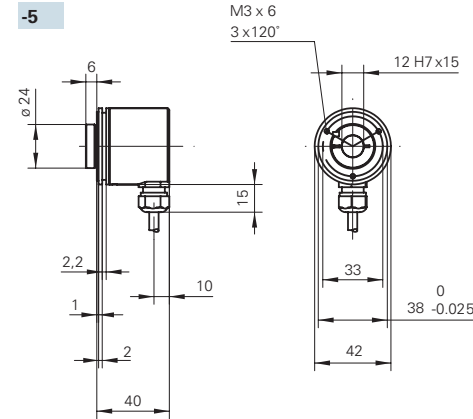
### order designation



### accessories

servo clamp set	part nr. 110616
field plate set	part nr. 138610
shaft adapter	(see accessories section)

### dimensions and connection dimensions

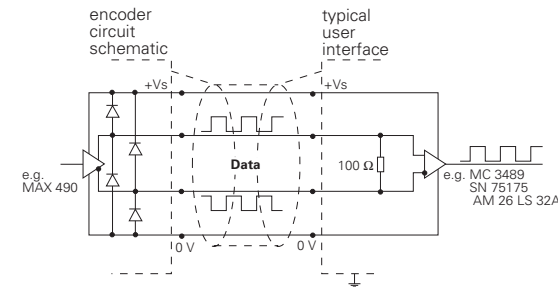


### assignment cable

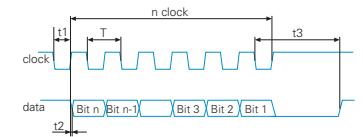
for connection reference -5

cable color	signal	description
brown	+Vs	voltage supply
white	0 V	voltage supply
grey	Data+	
pink	Data-	
green	Clock+	
yellow	Clock-	
blue	Zero	zero setting input
red		not connected

### SSI-output 05C



### circuit option



pulse times:  
 $T = 1 \mu\text{s to } 10 \mu\text{s}$  /  $t1 = 0,5 \text{ to } 5 \mu\text{s}$   
 $t2 < 0,2 \mu\text{s}$  /  $t3 > 12 \mu\text{s to } 25 \mu\text{s}$

### clock input 05C

