

EML 50 A / B / BY ANALOGUE

SOLID SHAFT MAGNETIC SINGLETURN ABSOLUTE ENCODER

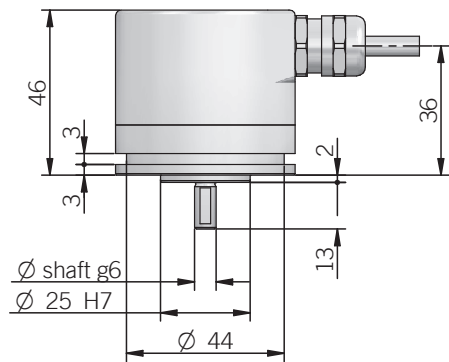
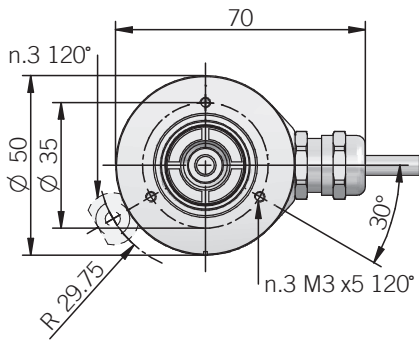
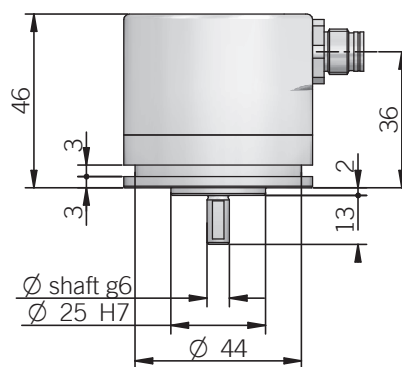
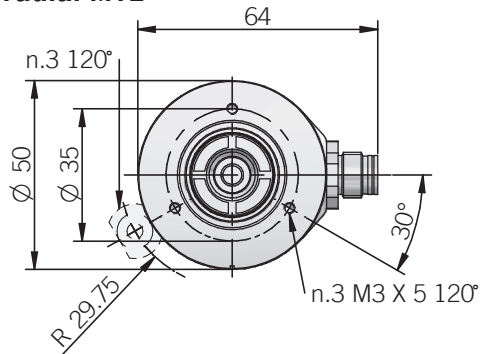
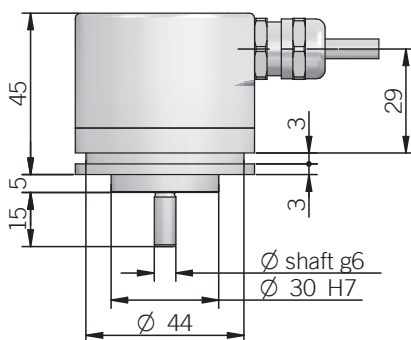
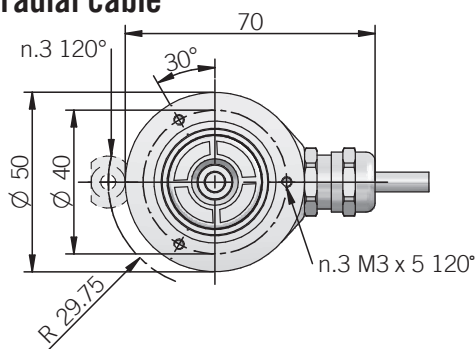
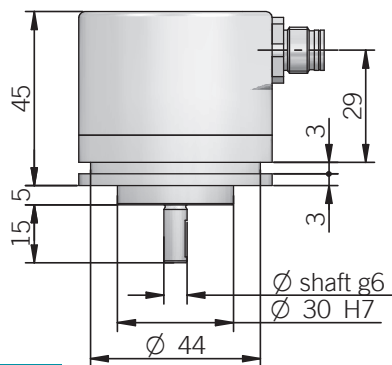
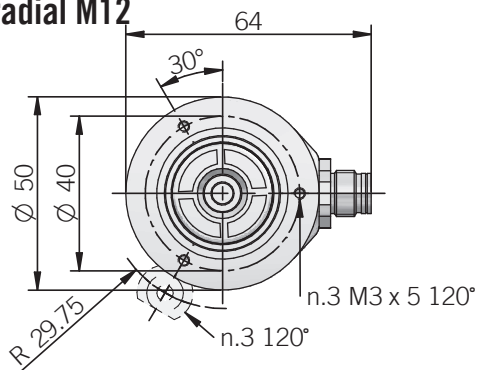
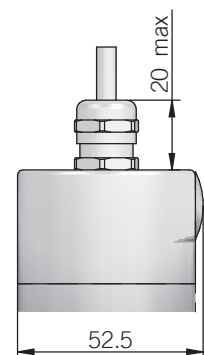


Specifications

Singleturn absolute magnetic encoder size 50 mm with solid shaft

- Resolution 12 bit
- Power supply up to +28 VDC with analogue (voltage or current) as electronic interface
- Code reset for easy setup
- Cable or M12 output, other connectors available on cable end
- Sturdy construction (separated chambers)
- Solid shaft diameter up to 10 mm
- IP 67 enclosure rating
- Mounting by synchronous flange

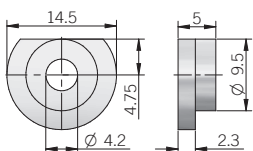
ORDERING CODE	EML	50A	360	X	12/28	V	05	X	6	X	3	P	R	.XXX
<p>SERIES analogue magnetic singleturn absolute encoder EML</p> <p>MODEL synchronous flange ø 25 mm 50A synchronous flange ø 30 mm 50B synchronous flange ø 25 mm anodized 50BY</p> <p>ACTIVE ANGLE degrees 360 degrees 270 degrees 180 degrees 90</p> <p>OPTION to be reported if not used X reset ZE</p> <p>POWER SUPPLY 12 ... 28 V DC 12/28</p> <p>ELECTRONIC INTERFACE voltage V current I</p> <p>OUTPUT RANGE 0 ... 5 V 05 0 ... 10 V 010 0 ... 20 mA 020 4 ... 20 mA 420</p> <p>OPTIONS to be reported with voltage output / 3 wires current output X 4 wires current output Q</p> <p>SHAFT DIAMETER mm 6 mm 8 9,52 (3/8") mm 9 mm 10</p> <p>ENCLOSURE RATING IP 65 X IP 67 S</p> <p>MAX ROTATION SPEED 3000 rpm 3</p> <p>OUTPUT TYPE cable (standard length 0,5 m) P M12 connector M12 <i>female connector included, without female please add 162 as variant code</i></p> <p>DIRECTION TYPE axial A radial R</p> <p>VARIANT custom version XXX</p>														

**EML 50 A
radial cable**

**EML 50 A
radial M12**

**EML 50 B / BY
radial cable**

**EML 50 B / BY
radial M12**

Axial output


dimensions in mm

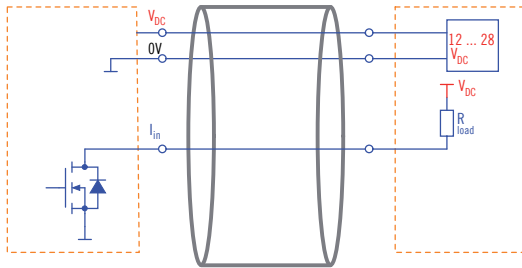
ACCESSORIES

set n.3 fixing clamps
P/N 94080001

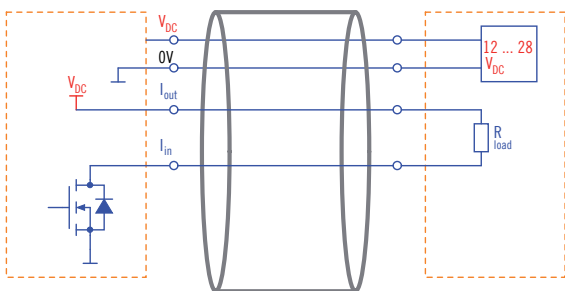
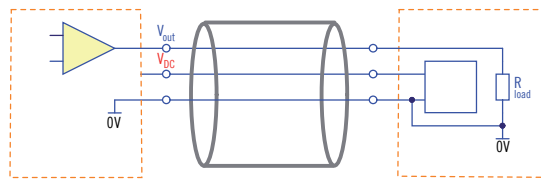
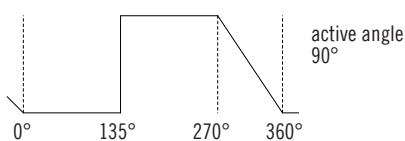
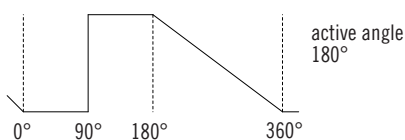
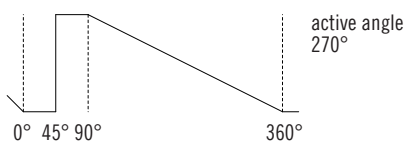
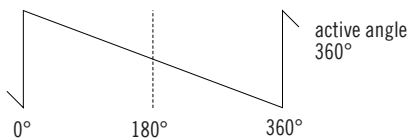


ELECTRICAL INTERFACE
Current output

3 wire sink



4 wire sink


Voltage output

SIGNAL PATTERN (decreasing CW)

ELECTRICAL SPECIFICATIONS

Resolution	12 bits per revolution
Output update frequency	100 kHz
Active angle	90 ... 360 mechanical degrees
Power supply	12/28 = 11,4 ... 29,4 V DC (reverse polarity protection)
Current consumption without load	40 mA max
Output type	voltage (0 ... 5 V / 0 ... 10 V) current (0 ... 20 mA / 4 ... 20 mA)
Auxiliary inputs (U/D - Reset)	active high (+Vdc) connect to 0V if not used / Reset tmin 150 ms
Load	Rmin= 1 kΩ (voltage output) Rmax= (V _{dc} - 2) / 0.02 (current output)
Linearity error	< 1%
Signal pattern	decreasing clockwise (shaft view)
Start-up time	150 ms
Electromagnetic compatibility	IEC 61000-6-2 IEC 61000-6-4

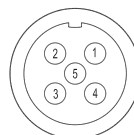
MECHANICAL SPECIFICATIONS

Shaft diameter	∅ 6 / 8 / 9,52 (3/8") / 10 mm
Enclosure rating	X = IP 65 (IEC 60529) S = IP 67 (IEC 60529)
Max rotation speed	3000 rpm continuous / 5000 rpm peak
Max shaft load	30 N axial / 50 N radial
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	20 G, 10 ... 2000 Hz (IEC 60068-2-6)
Moment of inertia	0,5 x 10 ⁻⁶ kgm ²
Starting torque (at +20°C / +68°F)	< 0,03 Nm
Body material	EN-AW 2011 aluminum
Shaft material	1.4305 / AISI 303 stainless steel
Housing material	EN-AW 2011 aluminum
Bearings	2 ball bearings
Bearings life	10 ⁹ revolutions
Operating temperature	-25° ... +85°C (-13° ... +185°F)
Storage temperature	-25° ... +85°C (-13° ... +185°F)
Weight	200 g (7,05 oz)

CONNECTIONS

Function	Cable output (voltage)	Cable output (current)	5 pin M12 connector	8 pin M12 connector*
+ Vdc	red	red	2	8
0 Volt	black	black	4	5
Vout	green	/	3	/
Iin	/	yellow	3	3
Iout	/	green	/	2
U / D	blue	blue	5	7
RESET	white	white	1	1
⊥	shield	shield	housing	housing

* with Q current output

 M12 connector (5 pin)
M12 A coded
solder side view FV

 M12 connector (8 pin)
M12 A coded
solder side view FV
