

MAIN FEATURES

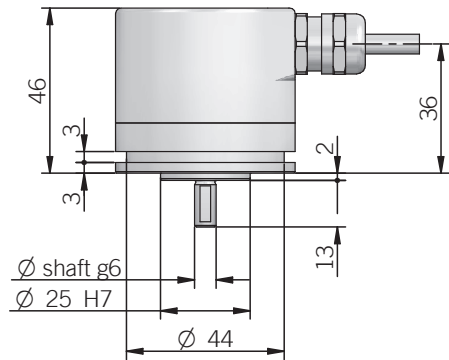
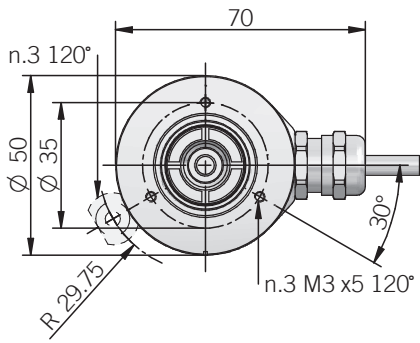
Singleturn absolute magnetic encoder size 50 mm with solid shaft

- 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

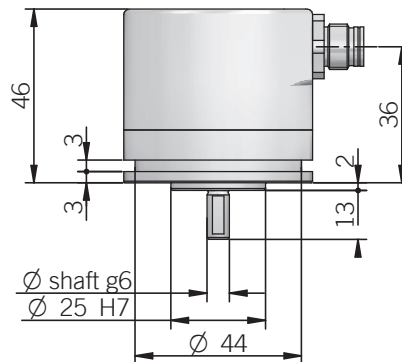
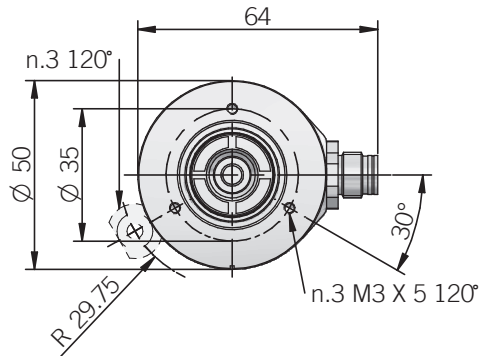


ORDERING CODE	EML	50A	360	X	12/28	V	05	X	6	X	3	P	R	.XXX
SERIES analogue magnetic singleturn absolute encoder EML														
MODEL synchronous flange \varnothing 25 mm 50A synchronous flange \varnothing 30 mm 50B synchronous flange \varnothing 25 mm anodized 50BY														
ACTIVE ANGLE degrees 360 degrees 270 degrees 180 degrees 90														
OPTION to be reported if not used X reset ZE														
POWER SUPPLY 12 ... 28 V DC 12/28														
ELECTRONIC INTERFACE voltage V current I														
OUTPUT RANGE 0 ... 5 V 05 0 ... 10 V 010 0 ... 20 mA 020 4 ... 20 mA 420														
OPTIONS to be reported with voltage output / 3 wires current output X 4 wires current output Q														
SHAFT DIAMETER mm 6 mm 8 9,52 (3/8") mm 9 mm 10														
ENCLOSURE RATING IP 65 X IP 67 S														
MAX ROTATION SPEED 3000 rpm 3														
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>														
DIRECTION TYPE axial A radial R														
VARIANT custom version XXX														

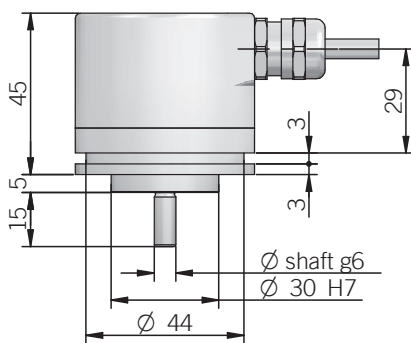
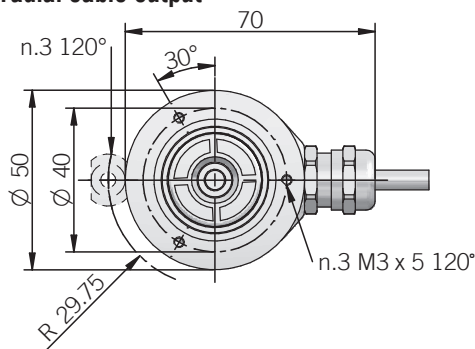
EML 50 A
radial cable output



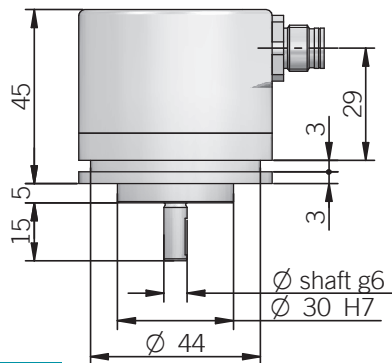
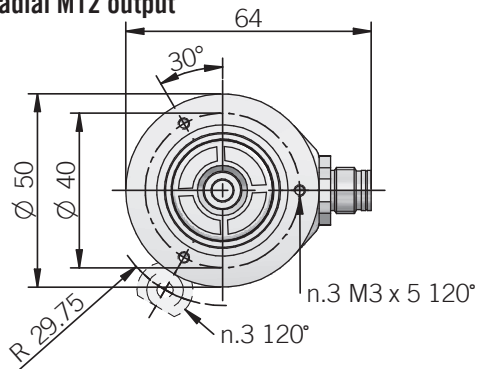
EML 50 A
radial M12 output



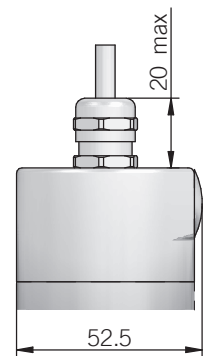
EML 50 B / BY
radial cable output



EML 50 B / BY
radial M12 output

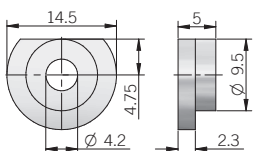


Axial output



ACCESSORIES

set n.3 fixing clamps
P/N 94080001

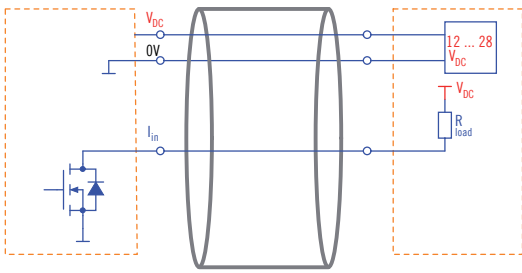


dimensions in mm

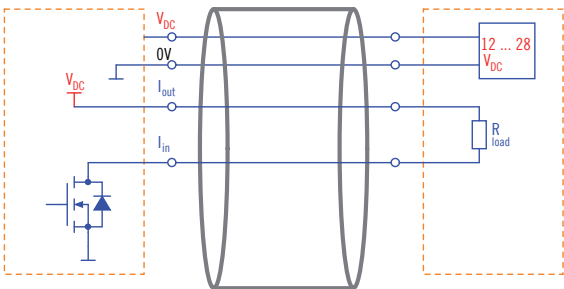
ELECTRICAL INTERFACE

Current output

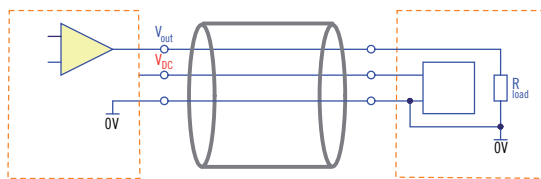
3 wire sink



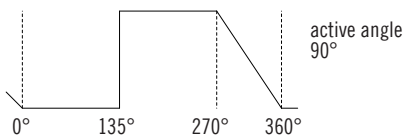
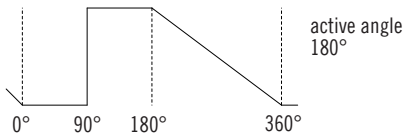
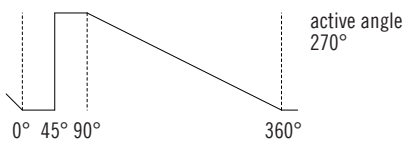
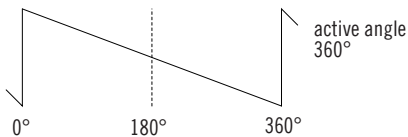
4 wire sink



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

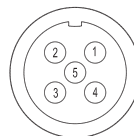
Shaft diameter	∅ 6 / 8 / 9,52 (3/8") / 10 mm
Enclosure rating	X = IP 65 (IEC 60529) S = IP 67 (IEC 60529)
Max rotation speed	3000 rpm continuous / 5000 rpm peak
Max shaft load	30 N axial / 50 N radial
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	20 G, 10 ... 2000 Hz (IEC 60068-2-6)
Moment of inertia	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

