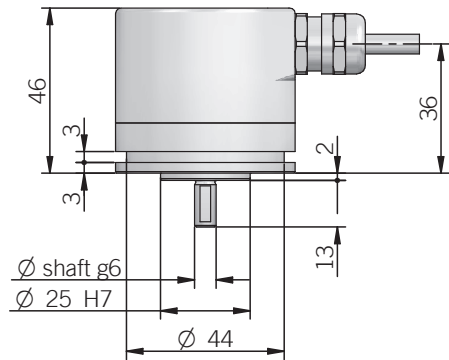
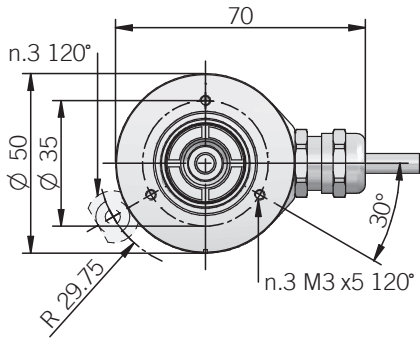
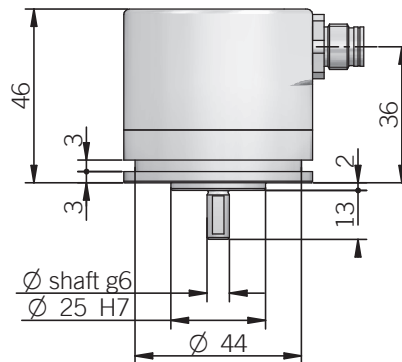
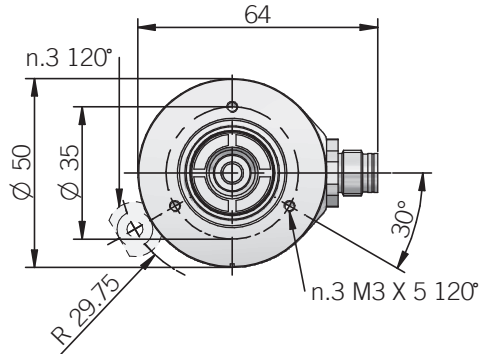
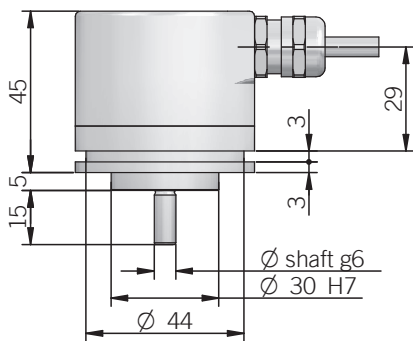
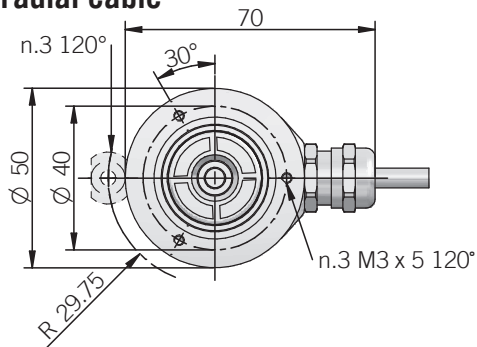
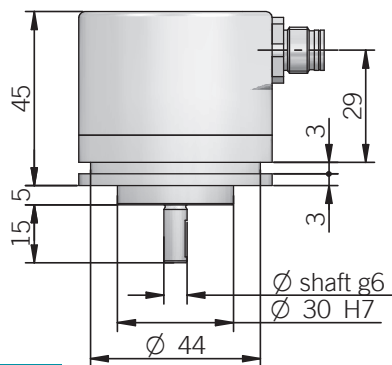
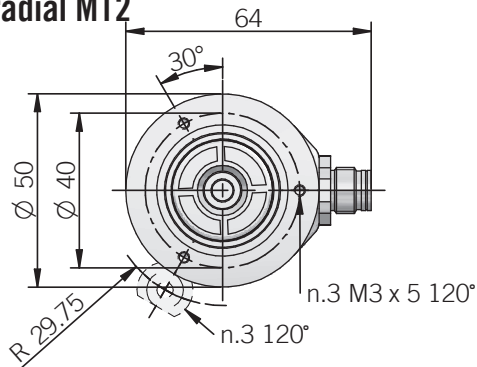
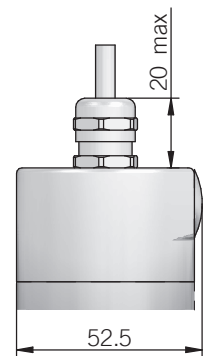
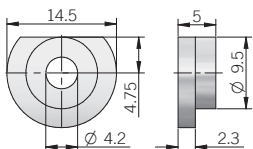




**EML 50 A  
radial cable**

**EML 50 A  
radial M12**

**EML 50 B / BY  
radial cable**

**EML 50 B / BY  
radial M12**

**Axial output**

**ACCESSORIES**

set n.3 fixing clamps  
P/N 94080001

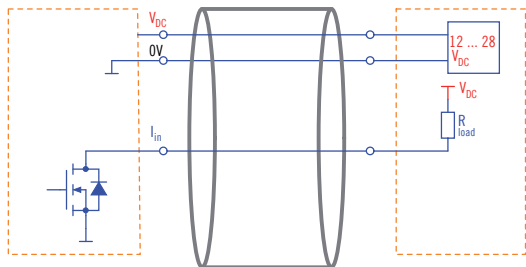


dimensions in mm

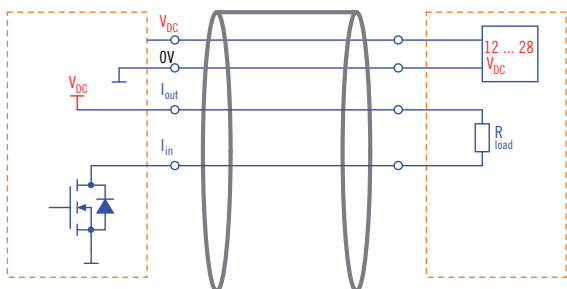
## ELECTRICAL INTERFACE

### Current output

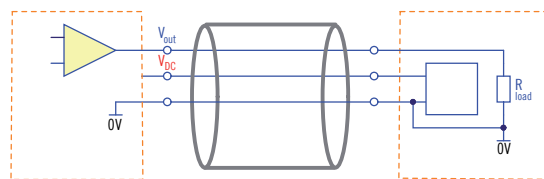
3 wire sink



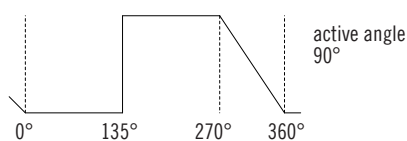
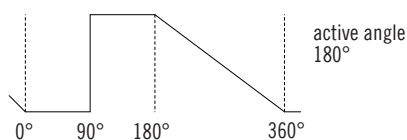
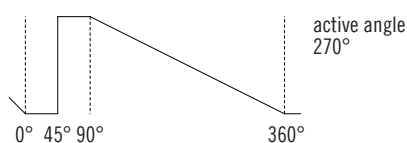
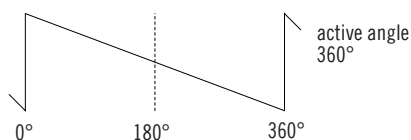
4 wire sink



### Voltage output



## SIGNAL PATTERN (decreasing CW)



## ELECTRICAL SPECIFICATIONS

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

## MECHANICAL SPECIFICATIONS

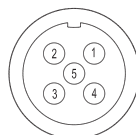
<b>Shaft diameter</b>	∅ 6 / 8 / 9,52 (3/8") / 10 mm
<b>Enclosure rating</b>	X = IP 65 (IEC 60529) S = IP 67 (IEC 60529)
<b>Max rotation speed</b>	3000 rpm continuous / 5000 rpm peak
<b>Max shaft load</b>	30 N axial / 50 N radial
<b>Shock</b>	50 G, 11 ms (IEC 60068-2-27)
<b>Vibration</b>	20 G, 10 ...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

