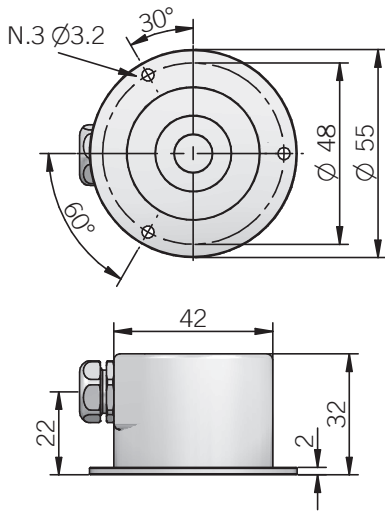
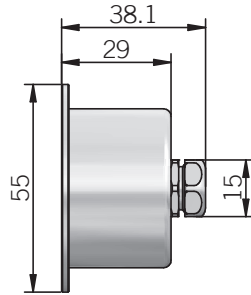
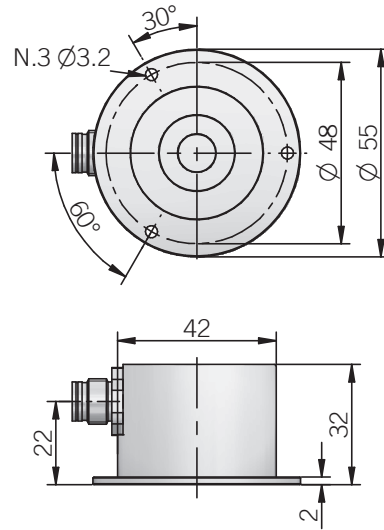
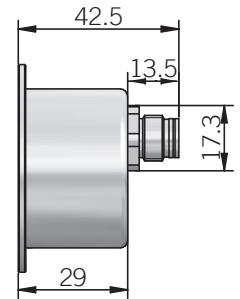
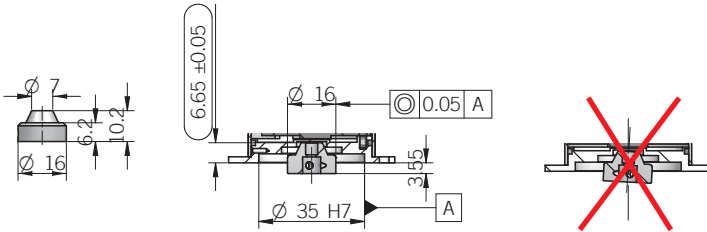




**EMA 55 A / AY  
radial cable**

**EMA 55 A / AY  
axial cable**

**EMA 55 A / AY  
radial M12**

**EMA 55 A / AY  
axial M12**


dimensions in mm


**ELECTRICAL SPECIFICATIONS**

<b>Resolution</b>	from 8 to 8192 ppr
<b>Power supply</b>	5 = 4,75 ... 5,25 V DC 8/30 = 7,6 ... 31,5 V DC
<b>Power draw without load</b>	800 mW max
<b>Output type</b>	RS-422
<b>SSI output code</b>	binary or gray
<b>Clock frequency</b>	100 kHz ... 1 MHz
<b>SSI monostable time (Tm)</b>	20 µs
<b>SSI frame</b>	(MSB ... LSB) 13 bit data length
<b>Accuracy</b>	± 0,35° typical / ± 0,50° max
<b>Counting direction</b>	decreasing clockwise (magnet actuator view)
<b>Electromagnetic compatibility</b>	IEC 61000-6-1 IEC 61000-6-4

**RESOLUTIONS**

8 - 16 - 25 - 32 - 40 - 50 - 64 - 80 - 100 - 125 - 128 - 160 - 200 - 250 - 256 - 320 - 400 - 500 - 512 - 800 - 1000 - 1024 - 1600 - 2000 - 2048 - 4096 - 8192

**CONNECTIONS**

Function	Cable output	8 pin M12 connector
+ Vdc	red	8
0 Volt	black	5
data +	green	3
data -	brown	2
clock +	yellow	4
clock -	orange or pink	6
⊥	shield	housing

**MECHANICAL SPECIFICATIONS**

<b>Bore diameter (magnet actuator)</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>	10000 rpm
<b>Shock</b>	50 G, 11 ms (IEC 60068-2-27)
<b>Vibration</b>	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
<b>Moment of inertia (magnet actuator)</b>	0,1 x 10 <sup>-6</sup> kgm <sup>2</sup>
<b>Body material</b>	EN-AW 2011 aluminum
<b>Housing material</b>	painted aluminium
<b>Magnet actuator material</b>	EN-AW 2011 aluminum
<b>Operating temperature</b>	-40° ... +100 °C (-40° ... +212°F)
<b>Storage temperature</b>	-25° ... +85 °C (-13° ... +185°F)
<b>Weight</b>	150 g (5,29 oz)
<b>Magnet actuator mounting tolerances</b> (to get best electrical performances)	± 0,2 mm (axial) ± 0,1 mm (radial)

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

