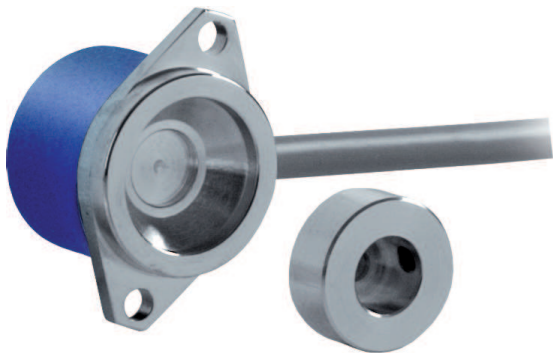


## EMA 22 A SSI

### MAGNETIC SINGLETURN ABSOLUTE KIT ENCODER



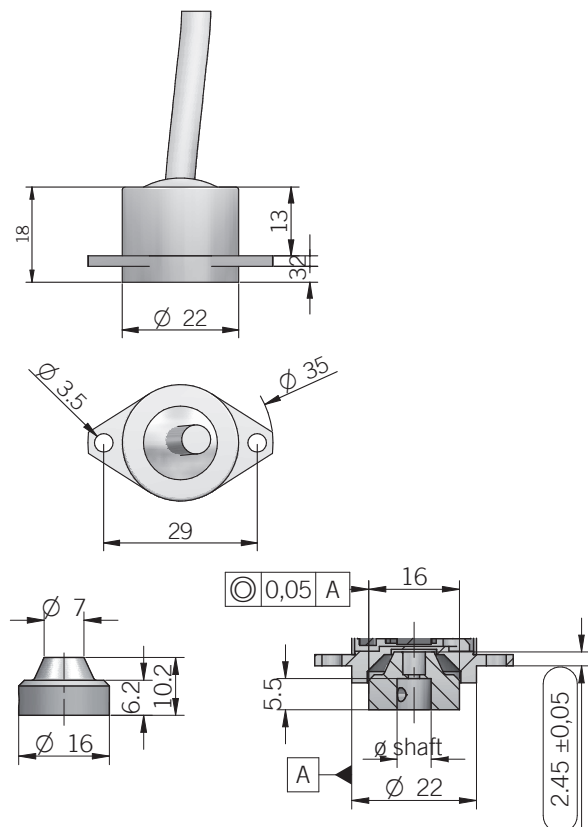
### Specifications

EM series encoders are suitable for several application fields like electric motors marine industry, iron and steel industry, textile machines, wood-working, paper-working, glass working, marble-working machinery and, more generally, automation and process control fields.

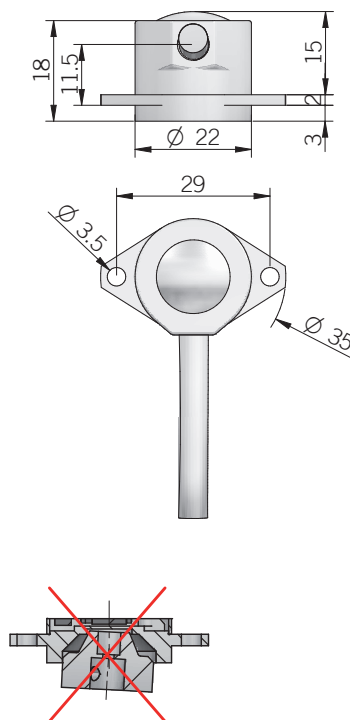
- Resolution up to 13 bit (8192 ppr) with SSI as electronic interface
- Cable output, connector available on cable end
- No wear due to no contact magnetic technology
- Bore shaft diameter up to 10 mm
- IP 67 enclosure rating
- Wide operating temperature -40° ... +125°C (-40° ... +257°F)

ORDERING CODE	EMA	22A	1024	B	5	S	P	X	6	S	10	P	R	.XXX
<b>SERIES</b> magnetic singleturn absolute encoder <i>EMA</i>														
<b>MODEL</b> clamping flange ø 22 mm <i>22A</i> <i>for anodized version please directly contact our offices</i>														
<b>RESOLUTION</b> ppr from 8 to 8192 <i>see table for pulses availability</i>														
<b>CODE TYPE</b> binary <i>B</i> gray <i>G</i>														
<b>POWER SUPPLY</b> 5 V DC <i>5</i>														
<b>ELECTRONIC INTERFACE</b> Serial Synchronous Interface - SSI <i>S</i>														
<b>LOGIC</b> positive <i>P</i>														
<b>OPTIONS</b> to be reported <i>X</i>														
<b>BORE DIAMETER (MAGNET ACTUATOR)</b> mm <i>6</i> mm <i>8</i> (9,52mm 3/8") mm <i>9</i> mm <i>10</i>														
<b>ENCLOSURE RATING</b> IP 67 <i>S</i>														
<b>MAX ROTATION SPEED</b> 10000 rpm <i>10</i>														
<b>OUTPUT TYPE</b> cable (standard length 0,5 m) <i>P</i>														
<b>DIRECTION TYPE</b> axial <i>A</i> radial <i>R</i>														
<b>VARIANT</b> custom version <i>XXX</i>														

## EMA 22 axial cable output



## EMA 22 radial cable output



### ELECTRICAL SPECIFICATIONS

<b>Resolution</b>	from 8 to 8192 ppr
<b>Power supply</b>	5 = 4,75 ... 5,25 V DC
<b>Current consumption without load</b>	100 mA 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

### CONNECTIONS

Function	Cable output
+ Vdc	red
0 Volt	black
data +	green
data -	brown
clock +	yellow
clock -	orange
⊥	shield

### MECHANICAL SPECIFICATIONS

<b>Bore diameter (magnet actuator)</b>	∅ 6 / 8 / 9,52 (3/8") / 10 mm
<b>Enclosure rating</b>	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>	EN-AW 2011 aluminum
<b>Magnet actuator material</b>	EN-AW 2011 aluminum
<b>Operating temperature</b>	-40° ... +125 °C (-40° ... +257°F)
<b>Storage temperature</b>	-25° ... +85 °C (-13° ... +185°F)
<b>Weight</b>	30 g (1,06 oz)
<b>Magnet actuator mounting tolerances (to get best electrical performances)</b>	± 0,2 mm (axial) ± 0,1 mm (radial)

### 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