

### Main features

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.

- Compact dimensions
- Absence of physical contact between encoder and motor shaft
- High temperature resistant
- High resolution and precision
- High protection rating
- High operating speed
- Excellent mechanical sturdiness
- Very easy mounting



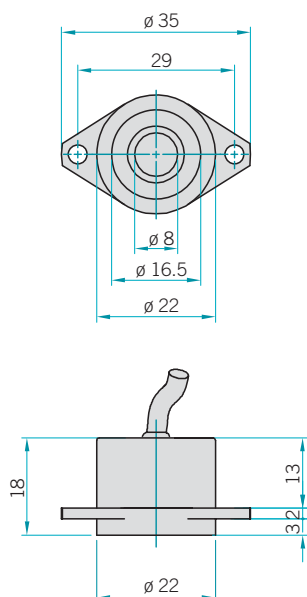
### Ordering code

|  |      |                |  |                                       |              |                  |  |   |                     |  |   |
|--|------|----------------|--|---------------------------------------|--------------|------------------|--|---|---------------------|--|---|
| full stop to separate special versions |      |                |  |                                       |              |                  |  |   |                     |  |   |
| EMI                                    | 22   | A              | 100  | S                                     | 5            | P                | 6  | S   | 10                  | PR   | XXX   |
| magnetic incremental encoder           | size | Type of flange | Resolution   | Zero pulse                            | Power supply | Enclosure rating | Bore diameter (magnet-carrier)                           | Output type   | Max. rotation speed | PA   | PR  |
|  |      | standard       | (only powers of 2) ppr from 2 to 2048<br>ppr 10 / 20 / 25 / 40 / 50 / 80 / 100 / 125 / 200 / 250 / 400 / 500<br><i>please directly contact our offices for pulses availability</i> | without zero pulse<br>with zero pulse | 5 V DC       | S IP68           | 6 ø 6 mm<br>8 ø 8 mm<br>9 ø 9.52 mm (3/8")<br>10 ø 10 mm | P push-pull<br>L line driver<br><i>please directly contact our offices for further measures</i> | 10 10000 RPM        | axial cable output (standard length 0.5 m) | radial cable output (standard length 0.5 m)   |
|  |      |                |  |                                       |              |                  |  |   |                     |  | special version code numbered from 001 to 999 |

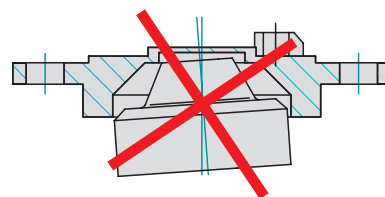
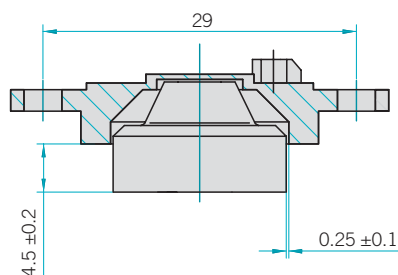
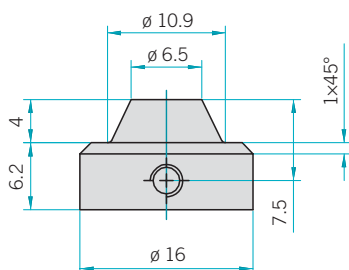
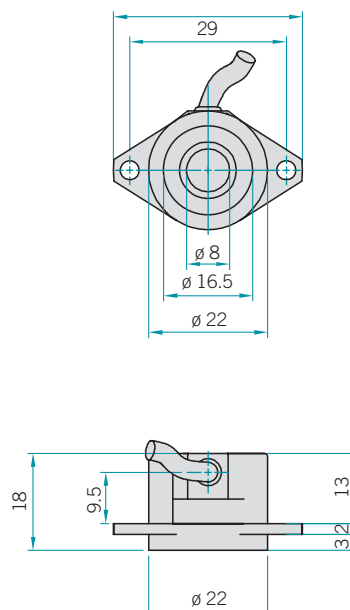
Magnetic incremental encoders

EMI 22

## EMI 22 axial cable output



## EMI 22 radial cable output



### Electrical specifications

|   |                          |
|---|--------------------------|
| <b>Resolution</b>                       | up to 2048 ppr           |
| <b>Current consumption without load</b> | 100 mA max.              |
| <b>Max. load current</b>                | 15 mA for channel        |
| <b>Power supply</b>                     | 5 V DC ±5%               |
| <b>Output type</b>                      | line driver<br>push-pull |
| <b>Max. output frequency</b>            | 200 kHz                  |

### Mechanical specifications

|                                       |                                   |
|---------------------------------------|-----------------------------------|
| <b>Bore diameter (magnet-carrier)</b> | up to 10 mm                       |
| <b>Enclosure rating</b>               | IP68                              |
| <b>Max. rotation speed</b>            | 10000 RPM                         |
| <b>Shock</b>                          | 50 G, 11 ms                       |
| <b>Vibration</b>                      | 10 G, 10÷2000 Hz                  |
| <b>Body material</b>                  | aluminium UNI 9002/5              |
| <b>Housing material</b>               | aluminium UNI 9002/5              |
| <b>Magnet-carrier material</b>        | aluminium UNI 9002/5              |
| <b>Operating temperature</b>          | -25÷125 °C                        |
| <b>Storage temperature</b>            | -30÷130 °C                        |
| <b>Weight</b>                         | 30 g                              |
| <b>Mounting tolerances</b>            | axial: ±0.2 mm<br>radial: ±0.1 mm |