



MAG Ex (incremental) and MAGA Ex (absolute)

Customized and space-saving bearingless magnetic encoder systems

Product benefits

- ATEX certification for Gas Zone 2
- Directly attaches to shafts with or without a free shaft end
- Optionally with split pulse wheel – ideal for retrofit projects
- Rugged, nonwearing and long lasting (bearingless design, stainless-steel protection cover, contactless scanning)
- Incremental or absolute output signals (HTL, TTL, SSI)
- Optionally available with redundant signals (second scanning head)
- Additional FOC signal transmissions up to 1000 m possible (external transmitter / decoder)
- Also suitable for offshore applications (seawater-proof, up to IP68)



Split pulse wheel – ideal for retrofit projects

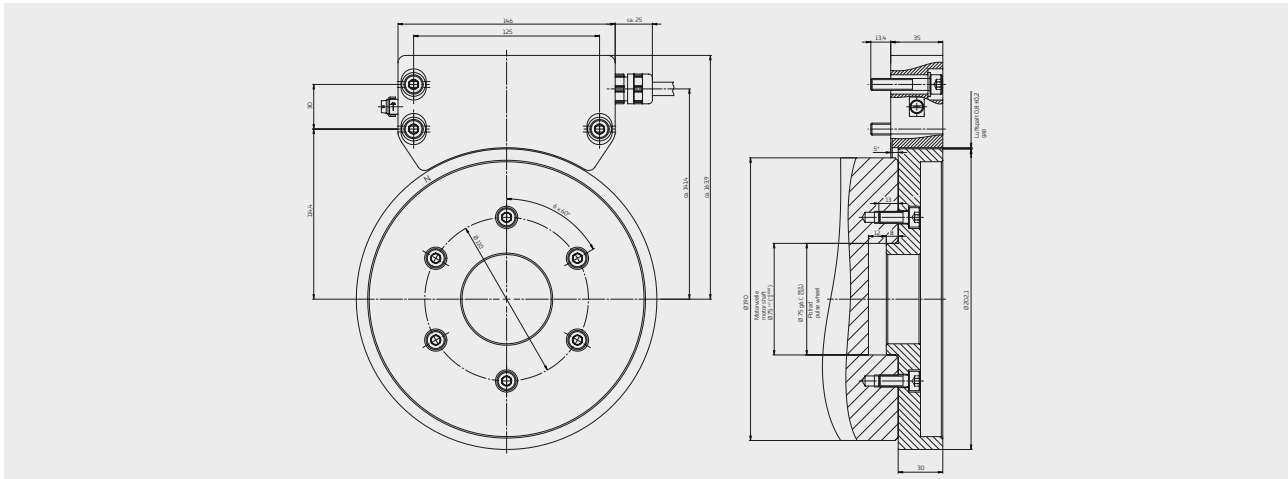


Stainless-steel protection cover welded on both sides to protect magnetic coding



Extra slim, tailor-made design

Example dimension drawing MAG Ex / MAGA Ex



MAG Ex 200 System solution consisting of pulse wheel with screw connection and scanning head

Technical data

| Series | MAG Ex (incremental) and MAGA Ex (absolute) |
|------------------------------|---|
| ATEX marking | II 3G Ex nC IIC T4 Gc |
| Supply voltage | 12 – 27 VDC |
| Temperature range | -30 °C...+85 °C |
| Vibration resistance | Up to 20 g |
| Shock resistance | Up to 200 g |
| Degree of protection | IP69 and IP66/IP67 |
| Max. speed | Up to 4000 rpm (depending on diameter of pulse wheel) |
| Hollow shaft diameter | 50 – 380 mm |
| Pulse wheel design | Optional one-piece or split |
| Pulse wheel attachment | Optional with screw connection or clamping element |
| Pulse wheel protection cover | Stainless-steel protection cover welded on both sides. Protects magnetic coding against environmental conditions and electrostatic charging. |
| Axial tolerance | ± 3 mm (offset pulse wheel / scanning head) |
| Radial tolerance | 1.0 ± 0.2 mm (air gap pulse wheel / scanning head) |
| Cable connection | Fixed copper cable connection, potted. Optional cable exit left or right. |
| Cable length | Individual to meet customer requirements. Maximum cable length: 100 m. Additional FOC signal transmissions up to 1000 m possible (transmitter in separate protective Ex housing). |

Output signals

| Series | MAG Ex (incremental) and MAGA Ex (absolute) |
|--------------------------|---|
| Output signals MAG Ex | 0°, 90°, error, marker pulse – each with inverted signals |
| Signal amplitude | HTL or TTL |
| Pulse rates | 64 up to 25600 rpm (depending on diameter of pulse wheel) |
| Max. frequency | 200 kHz |
| Output signals MAGA Ex | SSI (gray or binary) |
| Resolution | 12 – 16 bit |
| Redundant output signals | Possible with second scanning head |