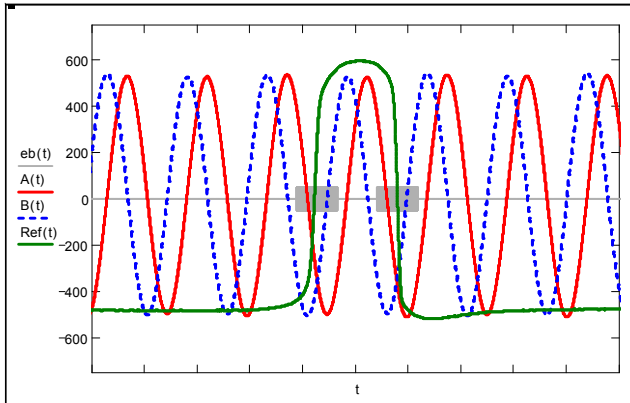
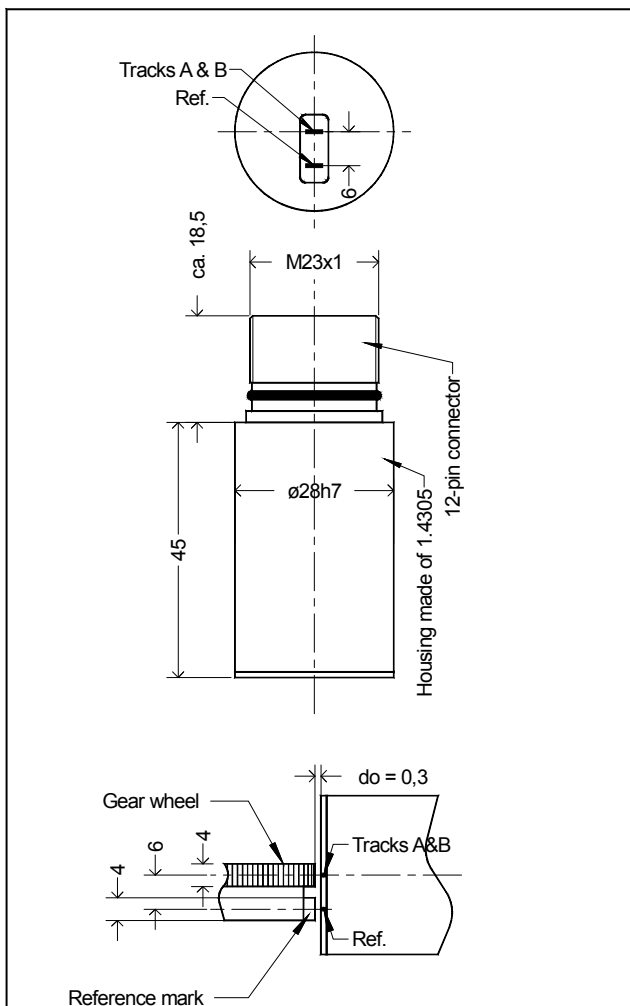


Magnetic gear wheel encoder ROM2G-A-M5/28x45-S12 technical specification



Typical signal aspect. The signal spurs A, B and ref. are depicted. The area highlighted in grey shows the optimal position of the 0 channels for the ref. signals (area of unambiguousness).



Signal parameters

Magnetic gear wheel encoder for gauging of gear wheels with a module $M = 0.5$.

Before delivery, each encoder is balanced at the nominal distance encoder - gear wheel $d_o = 0.3\text{mm}$ (for $M = 0.5$) on optimal signal values (signal aspect type - see figure). The signal parameters may deviate from the optimal values due to subsequent tolerances of attached parts, gear wheel quality and the influence of temperature and rotational speed.

- | | |
|------------------------------|--|
| ■ Signal type | analog, differential signals
SIN (spur A),
COS (spur B)
Ref. pulse
inverted signals A, B & Ref |
| ■ Signal amplitude A & B | 1Vpp +/- 25% |
| ■ Amplitude differential A/B | 0.9 ... 1.1 |
| ■ Phase A to B | 90° +/- 3° |
| ■ Offset - static | +/- 6% |
| ■ Freq. of measurement | 0 ... 200kHz |

General parameters

- | | |
|--|------------------------------|
| ■ Supply voltage UB | 5VDC +/- 5% |
| ■ Wattage
without load | 50mA |
| ■ Operating temperature | -20 ... 100°C |
| ■ Storage temperature | -30 ... 110°C |
| ■ Optimal distance d_o
encoder - gear wheel | 0.3 +/- 0.02mm für $M = 0.5$ |

Connector pin assignment

- | | |
|----------|-----------|
| ■ Pin 1 | Spur B - |
| ■ Pin 2 | Test_VS* |
| ■ Pin 3 | Ref. + |
| ■ Pin 4 | Ref. - |
| ■ Pin 5 | Spur A + |
| ■ Pin 6 | Spur A - |
| ■ Pin 7 | Test_VS* |
| ■ Pin 8 | Spur B+ |
| ■ Pin 9 | Test_VS* |
| ■ Pin 10 | 0V |
| ■ Pin 11 | n.c. |
| ■ Pin 12 | UB = 5VDC |

* Attention: The pins no. 2, 7 and 9 useable for programming encoder parameters. This pins do not use otherwise !