

**STAINLESS STEEL****IP 67****CHARACTERISTICS**

| | |
|--------------------------|---|
| ENCODER TYPE | Hollow shaft encoder |
| APPROVAL | II 2 G/D EEx d IIC T6 |
| SMD - TECHNOLOGY | Strong compact electronics |
| HIGH IP-RATING | Std. IP 67 (option IP 66) |
| LOW CURRENT CONSUMPTION | To be connected directly to PLC'S and counters |
| SHORT CIRCUIT PROTECTION | Thermal shut down at 155°C |
| WIDE SUPPLY RANGE | Min. 4,5V to max. 30V |
| STRONG MEC. CONSTRUCTION | Based on 2 precision ball bearings, for harsh industrial environments |

ELECTRICAL SPECIFICATIONS

| | At +25°C |
|-----------------------|--|
| Output waveform | Incremental (A, B) |
| Zero or index pulse | (Z) one pr./rev. |
| Output | Totempole |
| Supply-voltage (Vin) | Min. 4,5V to Max. 30V * Reverse polarity protection |
| Current (no load) | Max. 45 mA |
| Max. load pr. output | 30 mA - (Short circuit protected) * |
| V Out low | Max. 500 mV @ I = 10 mA |
| Operating temp. | - 40°C to + 75°C |
| Storage temp. | - 40°C to + 75°C |
| Max. pulse frequency | 300 kHz* |
| V out high | Min. (Vin -0,6) @ I = -10mA Min. (Vin -1,3) @ I = -25mA |
| Cable data | 8 leads (0,14 mm ²)pairtwisted/shielded |
| Output signals | Standard (Normal), Inverted, Differential (RS-422A compatible) |
| EMC certified acc. to | EN 50081-1 and EN 50082-2 |
| EEx certified acc. to | EN 50014 and EN 50018 94 / 9 / EC (ATEX) |
| | * = It is not recommended to combine max value for all 3 parameters |

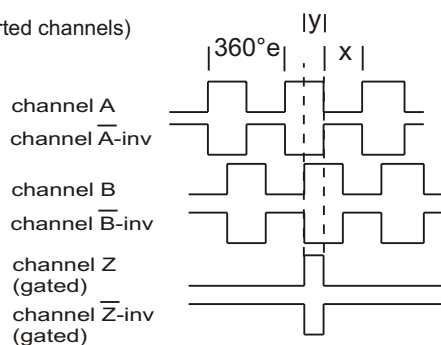
MECHANICAL SPECIFICATIONS

| | |
|------------------------|---|
| Weight | About 1,440 kg |
| Materials : Housing | Stainless steel (AISI303) (A2) |
| Shaft | Stainless steel (AISI303) (A2) |
| Bearings | Lifetime lubricated ball bearings |
| H.-Shaft dimensions | ø10 mm ø12 mm ø14 mm ø15 mm |
| H.-Shaft loads | Axial max. 50 N Radial max. 50 N |
| Max. rev. | 1500 rev./min. (IP 66 = 3000rev/min) |
| IP-rating | Standard IP 67 |
| Start torque | IP 66 < 0,05 Nm at 25°C IP 67 < 0,2 Nm at 25°C IP 68 < 0,2 Nm at 25°C |
| Mass moment of inertia | 40 gcm ² |
| Max. shock | 100 G/11 ms |
| Bump | 10 G - 16 ms (1000 x 3 axis) |
| Vibration | (10 - 2000 Hz)/10 G |

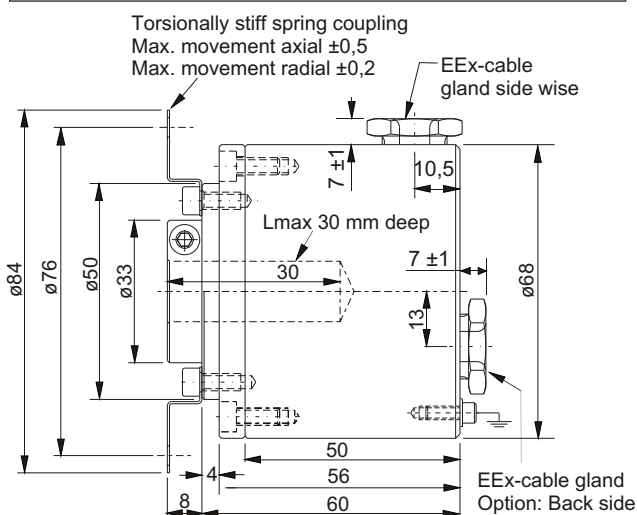
OUTPUT WAVEFORM

Rotation: Clockwise (cw) from shaftside

(inv = inverted channels)

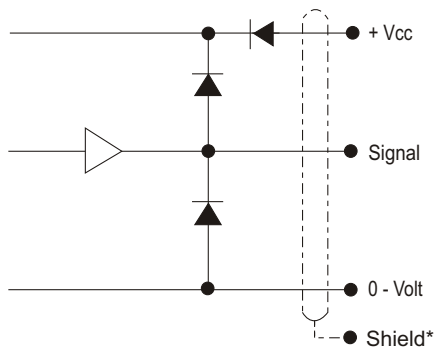


Options: TTL or HTL compatible. Open Collector NPN or PNP
Gated Z-puls or none-gated Z-puls.
View more Output options 52 - page 1

MECHANICAL DIMENSIONS

Option: View hollow shaft options next page
Option: Cable protection with hydraulic hose - side wise or back side

OUTPUT CIRCUIT



* Shield connected to housing

PULSES/REV.

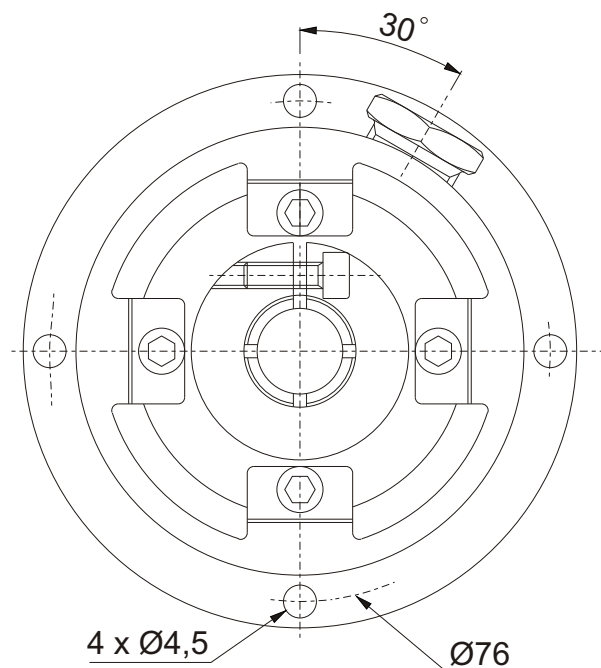
| | | | | | | |
|----|----|-----|-----|-----|------|------|
| 1 | 16 | 50 | 125 | 400 | 1000 | 2500 |
| 2 | 20 | 60 | 150 | 455 | 1024 | 3000 |
| 5 | 25 | 64 | 180 | 500 | 1131 | 3600 |
| 6 | 30 | 75 | 200 | 600 | 1250 | 4000 |
| 8 | 32 | 80 | 250 | 635 | 1500 | 4096 |
| 10 | 36 | 90 | 300 | 720 | 2000 | 5000 |
| 15 | 40 | 100 | 360 | 800 | 2048 | 9000 |

ORDERING CODES

| | Options | Ordering codes |
|---------------------------------------|---|----------------|
| Pulses pr. rev.: | No. of pulses | XXXXX |
| Material: | Stainless Steel | SR |
| Output signal: | Normal, Standard, A, B, Z (3 channel) | N |
| | Inverted (A-inv, B-inv, Z-inv) | I |
| | Differential: A, B, Z and A-inv, B-inv, Z-inv (6 channel) | D |
| | Line driver OL 7272 for extra long cable, up to 100 meters (Differential) | M |
| | Line driver chip 26C31 (V out low < 0,4 V) (RS-422A compatible @ 5V) Only 5 Volt (Differential) | L |
| Hollow Shaft dimensions: Tolerance G7 | ø10 mm | 10 |
| | ø12 mm | 12 |
| | ø14 mm | 14 |
| | ø15 mm | 15 |
| IP-rating: | IP 66 | 66 |
| Length of cable: | Standard 1 meter | 01 |
| | No. of meters | XX |
| Cable take out: | Side-standard | SS |
| | Back-standard | BS |
| | Side for hydraulic hose | SH |
| | Back for hydraulic hose | BH |
| Face Mount: | Standard hollow shaft | E |

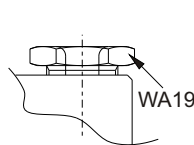
FACE MOUNT

Face mount E

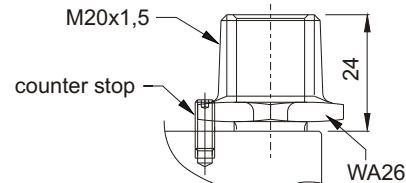


EEx CABLE TAKE OUT

Standard



Cable protection with Hydraulic Hose



CONNECTIONS

| Color code | Standard |
|------------|-----------|
| Pink | Ch. A |
| Grey* | Ch. A Gnd |
| Green | Ch. B |
| Yellow* | Ch. B Gnd |
| White | Ch. Z |
| Brown* | Ch. Z Gnd |
| Red | Vcc |
| Blue* | Gnd |

*Blue, grey, yellow and brown are internally connected

| Color code | Differential |
|------------|--------------|
| Pink | Ch. A |
| Grey | Ch. A inv. |
| Green | Ch. B |
| Yellow | Ch. B inv. |
| White | Ch. Z |
| Brown | Ch. Z inv. |
| Red | Vcc |
| Blue | Gnd |

2REX-H-SR



Pulses



Material



Output signal



Shaft



IP-rating



Length of cable



Cable take out



Face mount