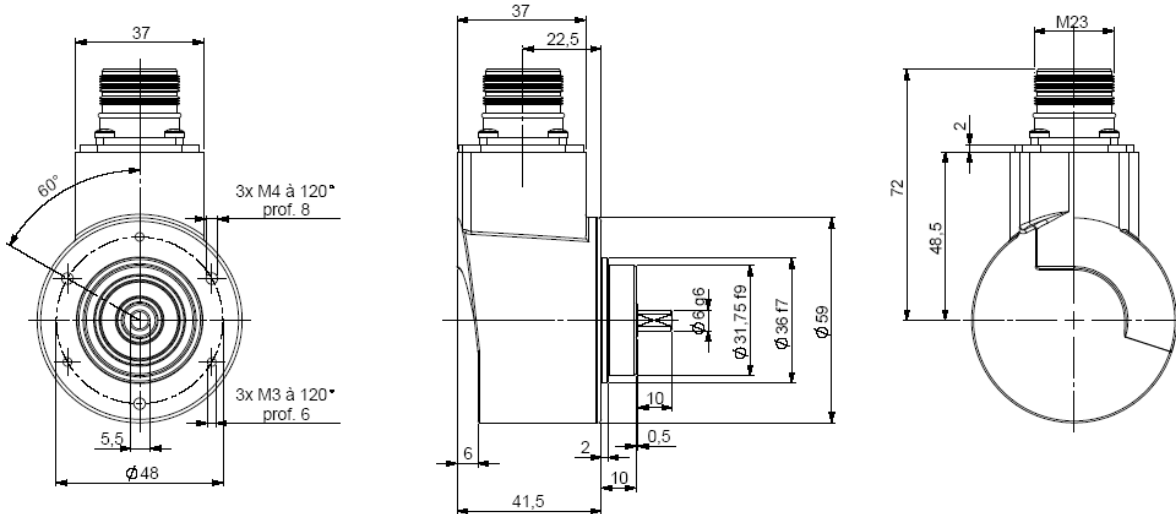


ABSOLUTE MULTITURN ENCODER, PHM5 RANGE

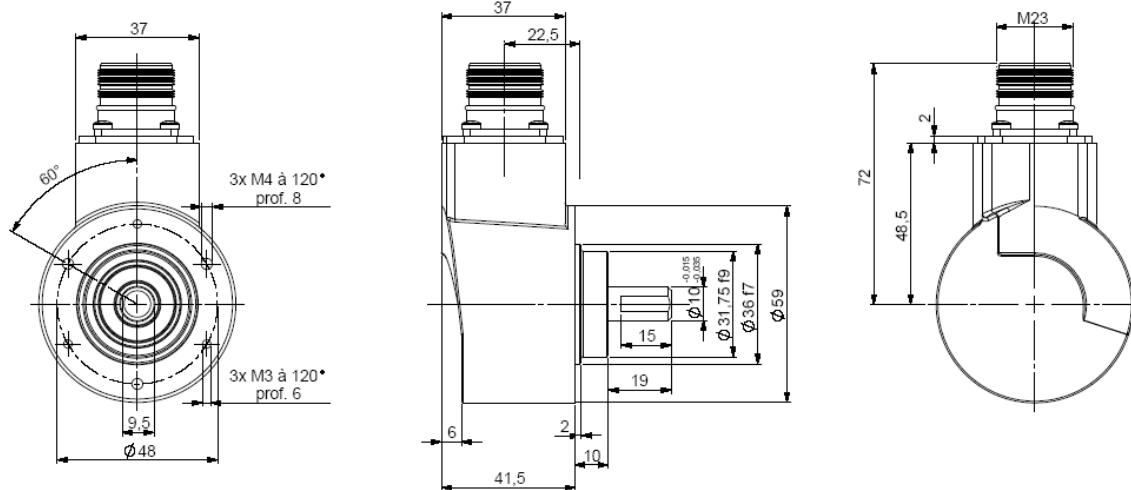
- Solid shaft $\varnothing 6$ and $\varnothing 10$ mm
- Robustness and excellent resistance to shocks / vibrations
- High protection level IP65, IP67 option with a sealing flange
- High performances in temperature -20°C to $+85^{\circ}\text{C}$
- Isolated SSI interface, clock from 100 to 500 kHz
- Universal electronic circuits from 5 to 30Vdc
- Protection against short-circuits and inversion of polarity
- High resolutions available: 8192 (13 bits) per turn
- Turn counting up to 65 536 (16 bits)
- 2 inputs : DIRECTION and RAZ
- Available with incremental channels – 2048 points – 5 to 30 Vdc
- Option: push-button on the cover for a encoder reset to a value X



PHM5_06 connection S6/S8R (M23 radial)



PHM5_10 connection S6/S8R (M23 radial)



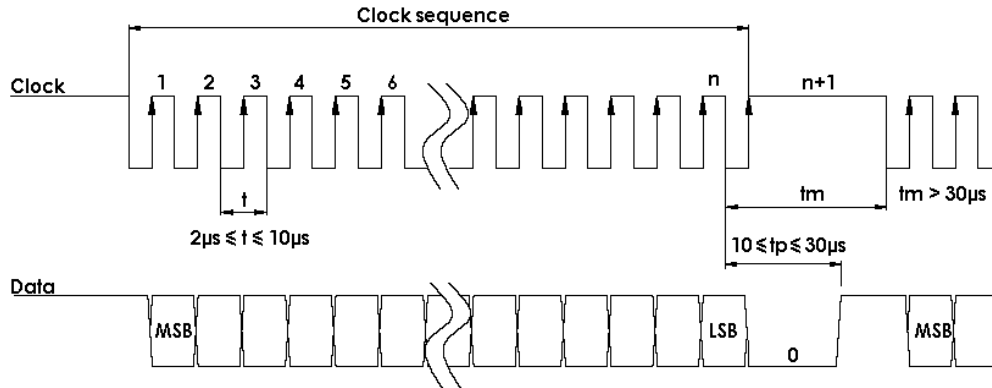
| | | | |
|------------------------|---------------------------------|---|--|
| Material | Cover : treated steel | Shock (EN60068-2-27) | $\leq 500 \text{ m.s}^{-2}$ (during 6 ms) |
| | Body: aluminium | Vibration (EN60068-2-6) | $\leq 100 \text{ m.s}^{-2}$ (10... 2 000 Hz) |
| | Shaft : stainless steel | EMC | EN 61000-6-4, EN 61000-6-2 |
| Bearings | 6 000 serie | Isolation | 100V (1 min.) |
| Maximum load | Axial : 50 N | Weight (connector) | 0,520 kg |
| | Radial : 100 N | Operating temperature | $-20 \dots +85^{\circ}\text{C}$ (encoder T°) |
| Shaft inertia | $\leq 1.10^{-6} \text{ kg.m}^2$ | Storage temperature | $-20 \dots +85^{\circ}\text{C}$ |
| Torque | $\leq 4.10^{-3} \text{ N.m}$ | Protection(EN 60529) | IP 65 (IP67 with flange option) |
| Permissible max. speed | $6\ 000 \text{ min}^{-1}$ | Theoretical mechanical lifetime 10^9 turns ($F_{\text{axial}} / F_{\text{radial}}$) | |
| Continuous max. speed | $6\ 000 \text{ min}^{-1}$ | 25 N / 50 N : 99 | 50 N / 100 N : 12 |

ABSOLUTE MULTITURN ENCODER, PHM5 RANGE

ELECTRICAL CHARACTERISTIC

| | | | |
|------------------------|---------------------------|--------------------|--------------------------------------|
| Input signal clock CLK | per opto-coupleur | Power supply | 5 – 30Vdc |
| Output signal DATA | line - driver selon RS422 | Introduction | < 1 s |
| Clock frequency CLK | 100kHz – 500kHz | Cons. without load | < 100mA (typically 50-60mA at 24Vdc) |
| Precision | ± ½ LSB (13 bits) | Position refresh | < 200µs |

SSI TRANSMISSION



| | |
|--------------|---|
| Transmission | Transmission up to 400m* at 100kHz in function of the cable characteristics |
| Cable | High security of transmission by using shielded cable and twisted pairs |

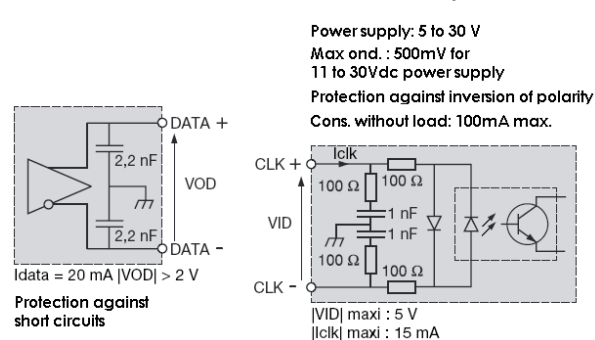
*Consult us for length > 100m

SSI CONNECTION (TYPE S6 : BEI IDEACOD STANDARD)

| Type | Vcc | Gnd | Clk+ | Data+ | RAZ | Data- | Clk- | DIRECTION |
|------|-----|-----|------|-------|-----|-------|------|-----------|
| S6 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 |
| S8 | 8 | 1 | 3 | 2 | 6 | 10 | 11 | 5 |

Nota : Do not connect other pinouts, connect DIRECTION and RAZ to a potential (RAZ at 0V if not used)

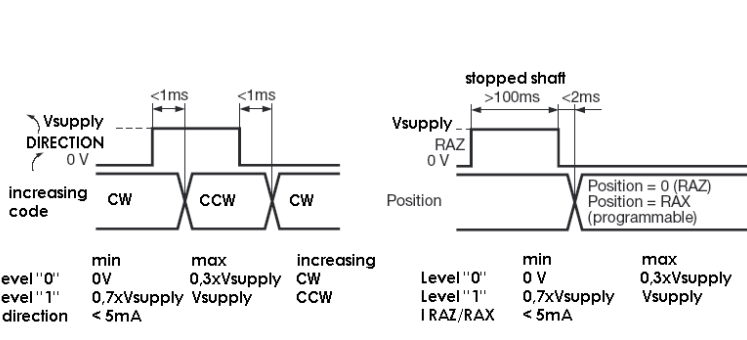
Data output RS422



Isolated Clk input

DIRECTION input

RAZ / RAX input



ORDERING REFERENCE (Contact the factory for special versions, ex: special flanges, connections, electronics...)

| | Shaft Ø | Supply | Output stage | Code | Resolution | | | Connection | Orientation |
|--------|-----------|----------------|-------------------------|----------------------|-------------|--------------|-------------|--|-------------|
| PHM5 | 10 : 10mm | P : 5 to 30Vdc | SS : SSI without parity | B: binary G: Gray | 13 B12 D5 | | | S6 : M23 12pins CW for SSI transmission S8: M23 12pins CCW for SSI transmission | R : radiale |
| | 06 : 6mm | | | | Resolution | Nb of turn | Nb data | | |
| | | | | | 13: 13 bits | B12: 12 bits | D5: 25 bits | | |
| PHM5 _ | 10 // | P | SS | G // | 13 | B12 | D5 // | S6 | R |

Made in France