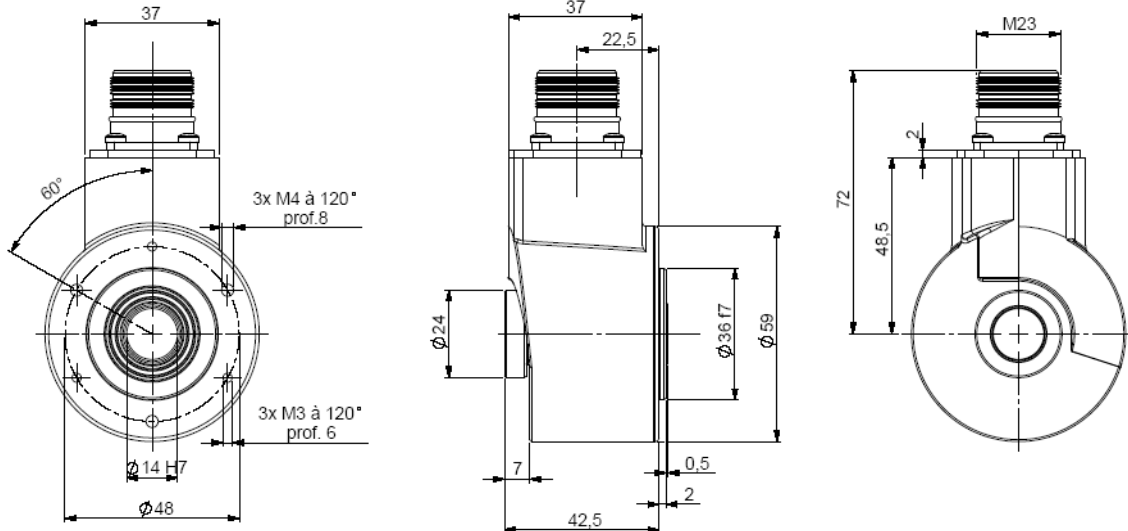


ABSOLUTE MULTITURN ENCODER, PHM5 SERIE, POSI+™

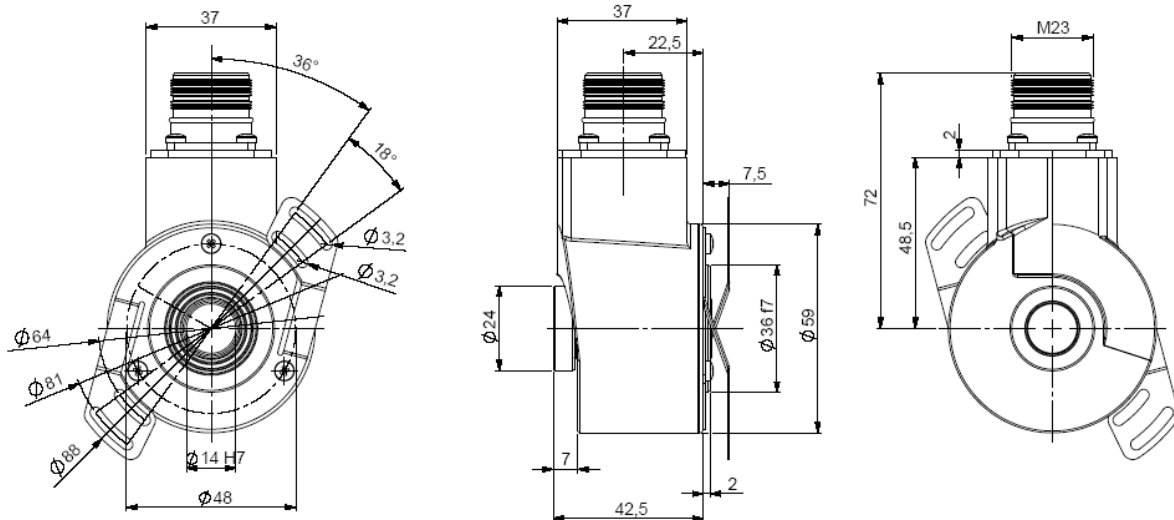
- Through shaft \varnothing 14 mm
- Robustness and excellent resistance to shocks / vibrations
- High performances in temperature -20°C to $+85^{\circ}\text{C}$
- Isolated SSI interface, clock from 100 to 500 kHz
- Universal electronic circuits from 5 to 30Vdc
- Protection against short-circuits and inversion of polarity
- High resolutions available: 8192 (13 bits) per turn, and turn counting up to 65 536 (16 bits)
- 2 inputs : DIRECTION and RAZ
- Available with incremental channels – 2048 points – 5 to 30 Vdc



PHO5_14 connection S6R / S8R (M23 radial)



PHO5_14 connection S6R / S8R (M23 radial), DAC mounted on the body



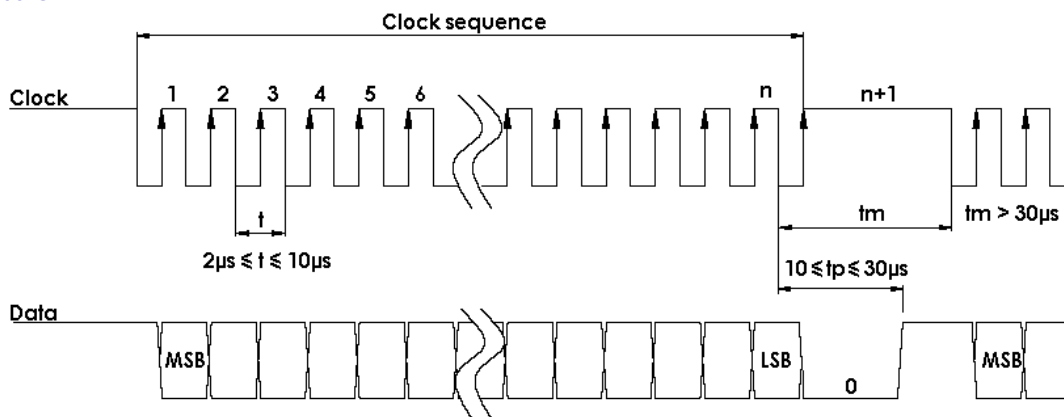
Material	Cover : treated steel	Shock (EN60068-2-27)	$\leq 500\text{m.s}^{-2}$ (during 6 ms)
	Body: aluminium	Vibration (EN60068-2-6)	$\leq 100\text{m.s}^{-2}$ (10 ... 2 000 Hz)
	Shaft : stainless steel	EMC	EN 61000-6-4, EN 61000-6-2
Bearings	6 803 serie	Isolation	100V (1 min)
Maximal load	Axial : 20 N	Weight	0,480 kg
	Radial : 50 N	Operating temperature	$-20 \dots +85^{\circ}\text{C}$ (encoder T°)
Shaft inertia	$\leq 2,2 \cdot 10^{-6} \text{ kg.m}^2$	Storage temperature	$-20 \dots +85^{\circ}\text{C}$
Torque	$\leq 6 \cdot 10^{-3} \text{ N.m}$	Protection(EN 60529)	IP 65
Permissible max. speed	$6\ 000 \text{ min}^{-1}$	Torque (ring pressure screw)	nominal: 1.5N.m, break: 2.0N.m
Continuous max. speed	$6\ 000 \text{ min}^{-1}$	Theoretical mechanical lifetime 10^9 turns ($F_{\text{axial}} / F_{\text{radial}}$)	
Shaft seal	Viton	10 N / 25 N : 185	20 N / 50 N : 24

ABSOLUTE MULTITURN ENCODER, PHO5 SERIE, POSI+™

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. Withou load	< 100mA (typically 50-60mA at 24Vdc)
Precision	± ½ LSB (13 bits)	Position refresh	< 200µs

SSI TRANSMISSION



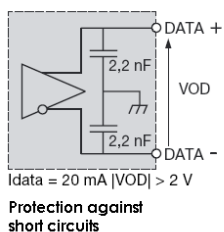
Transmission	Transmission up to 400m at 100kHz in function of the cable characteristics
Cable	High security of transmission by using shielded cable and twisted pairs

SSI CONNECTION (TYPE S6 : BEI IDEACOD STANDARD)

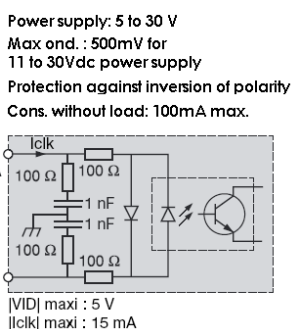
Type	Vcc	Gnd	Clk+	Data+	RAZ	Data-	Clk-	DIRECTION
S6	1	2	3	4	5	6	7	9
S8	8	1	3	2	6	10	11	5

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

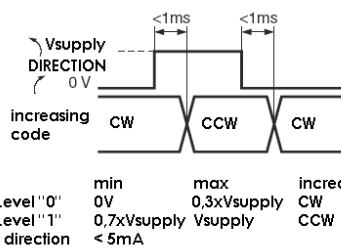
Data output RS422



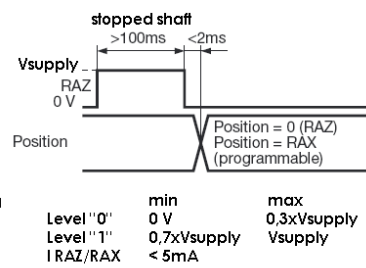
Isolated Clk input



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
PHO5	14 : 14mm Nota: reduction hubs available	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
					Resolution	Nb of turn	Nb data		
					13: 13 bits	B12: 12 bits	D5: 25 bits		
PHO5_	14 //	P	SS	G //	13	B12	D5 //	S6	R