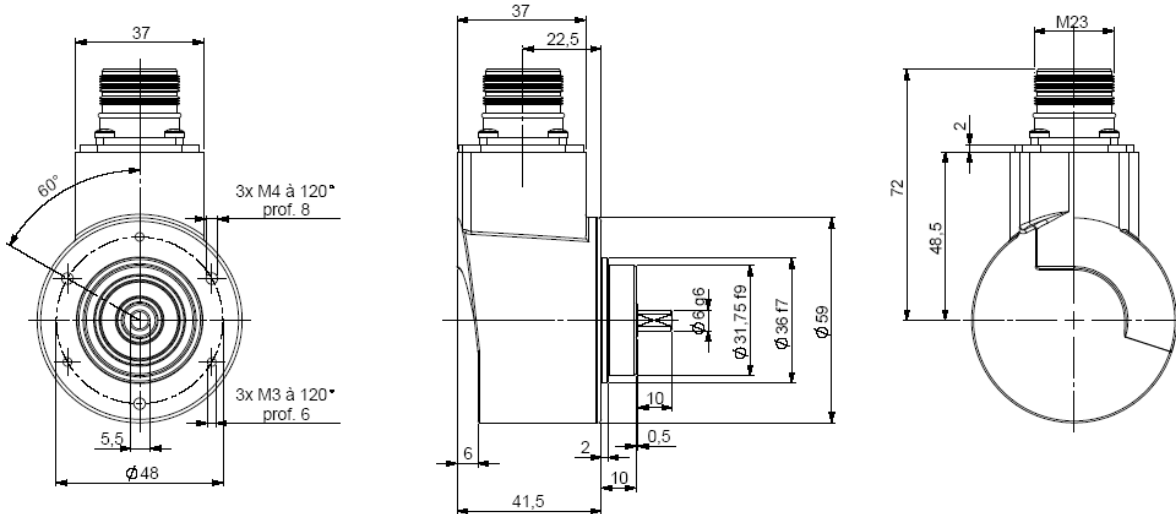


## ABSOLUTE MULTITURN ENCODER, PHM5 RANGE

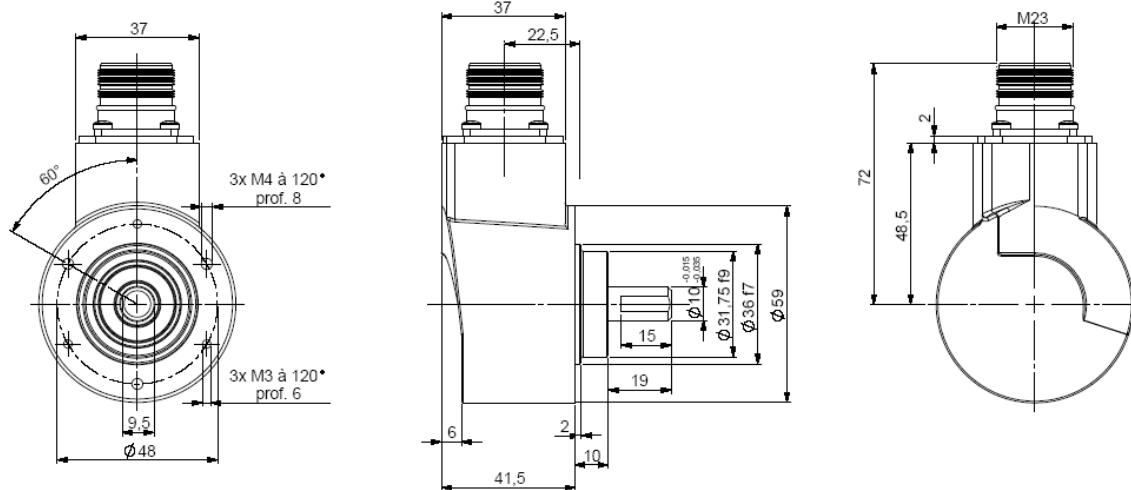
- Solid shaft  $\varnothing 6$  and  $\varnothing 10$  mm
- Robustness and excellent resistance to shocks / vibrations
- High protection level IP65, IP67 option with a sealing flange
- High performances in temperature  $-20^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- Isolated SSI interface, clock from 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)



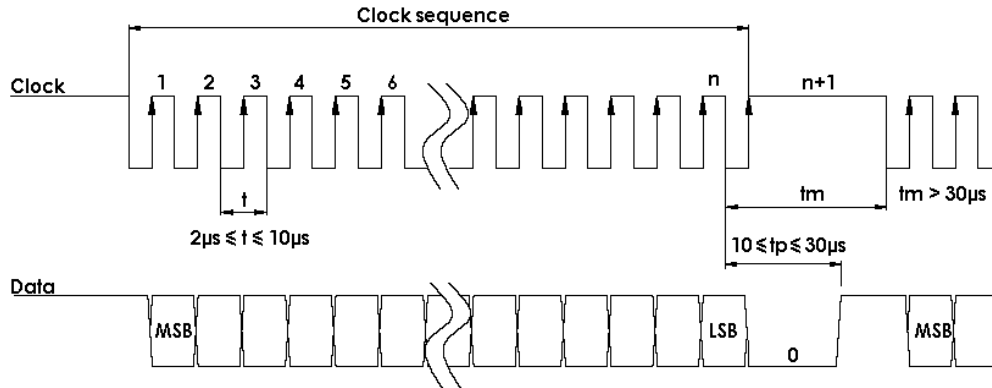
Material	Cover : treated steel	Shock (EN60068-2-27)	$\leq 500 \text{ m.s}^{-2}$ (during 6 ms)
	Body: aluminium	Vibration (EN60068-2-6)	$\leq 100 \text{ m.s}^{-2}$ (10... 2 000 Hz)
	Shaft : stainless steel	EMC	EN 61000-6-4, EN 61000-6-2
Bearings	6 000 serie	Isolation	100V (1 min.)
Maximum load	Axial : 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 ( $F_{axial} / F_{radial}$ )	
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

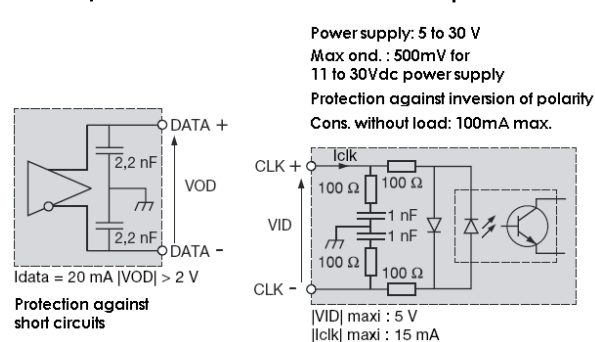
\*Consult us for length > 100m

### SSI CONNECTION (TYPE S6 : BEI IDEACOD STANDARD)

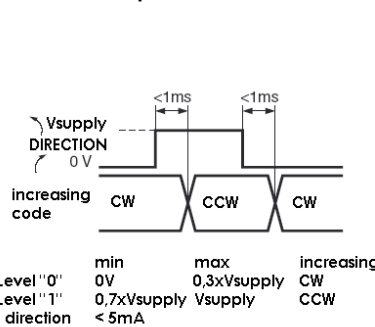
Type	Vcc	Gnd	Clk+	Data+	RAZ	Data-	Clk-	DIRECTION
S6	1	2	3	4	5	6	7	9
S8	8	1	3	2	6	10	11	5

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

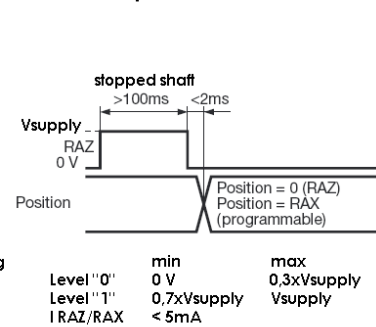
#### Data output RS422



#### 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