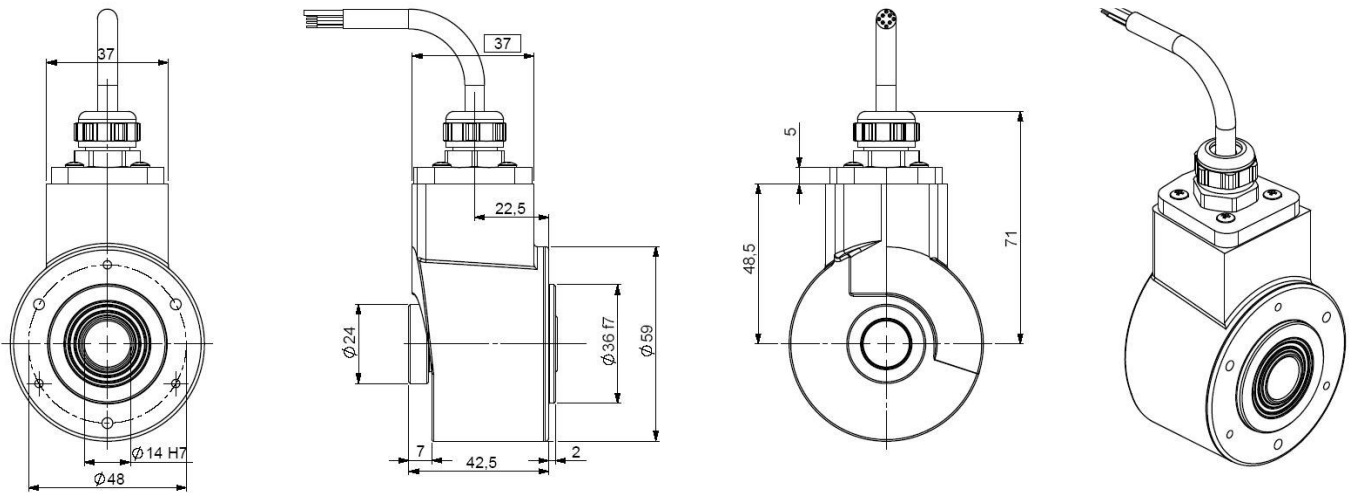


## ABSOLUTE MULTITURN ENCODER, PHM5 SERIE, POSI+™

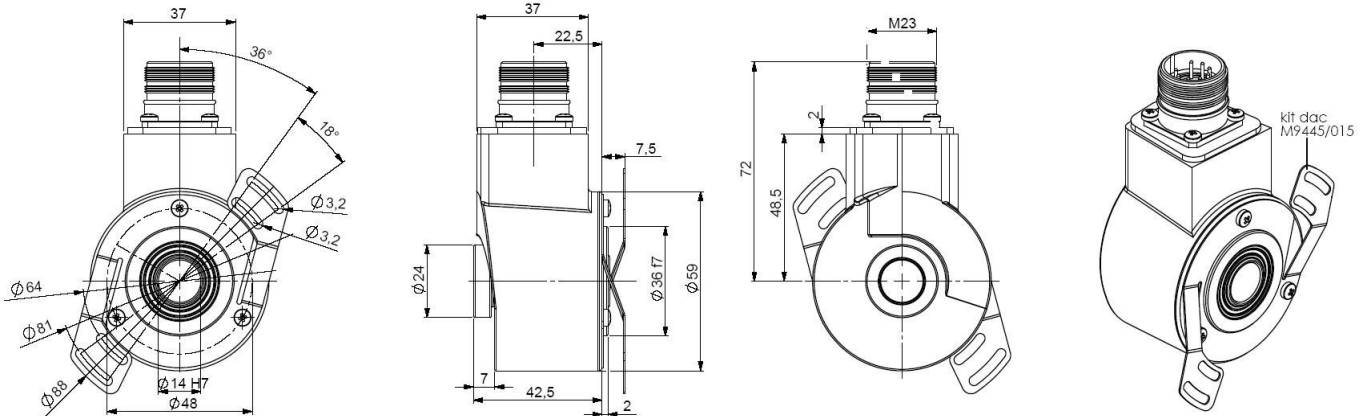
- Through shaft  $\varnothing$  14 mm
- Robustness and excellent resistance to shocks / vibrations
- High performances in temperature  $-20^{\circ}\text{C}$  to  $85^{\circ}\text{C}$
- Isolated SSI interface, clock from 100 to 500 kHz
- Universal electronic circuits from 5 to 30Vdc, protection against short-circuits and inversion of polarity
- High resolutions available: 8192 (13 bits) per turn, and turn counting up to 65 536 (16 bits)
- 2 inputs : Direction and Reset
- Available with incremental channels
- Push-button on the cover option for a encoder reset to a value X



PHO5\_14 connection S7R (cable radial)



PHO5\_14 connection S6R / M8R (radial 12 pinouts M23)

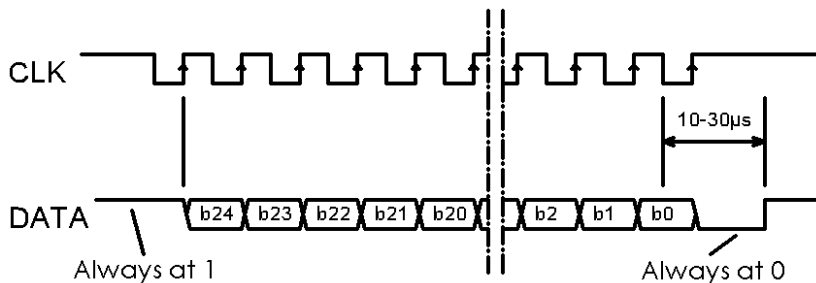


Material	Cover : treated steel	Shocks (EN60028-2-29)	$\leq 10\text{ g}$ (during 6 ms)
	Body: aluminium	Vibrations (EN60068-2-6)	$\leq 10\text{ g}$ (10 Hz...500 Hz)
	Shaft : stainless steel	EMC	EN 61000-6-4, EN 61000-6-2
Bearings	6 803 ZZ	Isolation voltage	50 V eff
Maximal loads	Axial : 20 N	Electrical life time	$> 10^6\text{ h}$
	Radial : 50 N	Weight	480 g
Shaft inertia	$\leq 22\text{ g.cm}^2$	Operating temperature	$-20... + 85^{\circ}\text{C}$
Torque	$\leq 0.6\text{ N.cm}$	Storage temperature	$-30... + 85^{\circ}\text{C}$
Maximum speed	9 000 rpm	Humidity	98 % (without condensation)
Speed (continuous)	6 000 rpm	Protection(EN 60529)	IP 65
Maximal acceleration	$1.10^5\text{ rad.s}^{-2}$	Torque (pressure screw)	nominal: 1.5N.m, break: 2.0N.m
Shaft seal	Viton	Theoretical mechanical lifetime $10^9$ tours ( $F_{axial} / F_{radial}$ )	
Shocks (EN60068-2-27)	$\leq 30\text{ g}$ (during 11 ms)	5 N / 10 N : 2400	10 N / 25 N : 230
			20 N / 50 N : 29

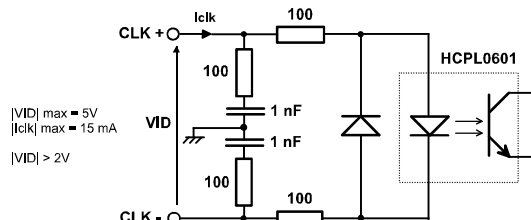
## ABSOLUTE MULTITURN ENCODER, PHM5 SERIE, POSI+™

### SSI TRANSMISSION

WITHOUT PARITY (25 BITS)

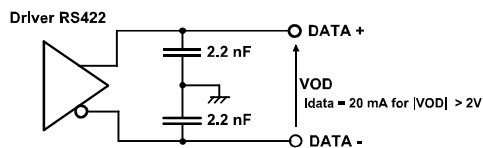
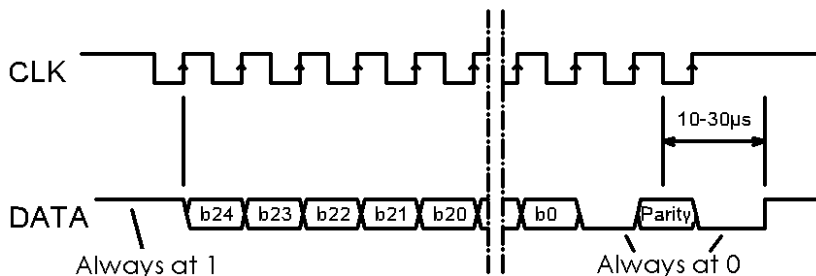


Power supply : 5 to 30 V DC  
Ondulation max : 500 mV  
Protection against Inversion of polarity  
Consumption without load : 100 mA ( 60mA typical at 24V )



ISOLATED CLOCK ENTRY

WITH PARITY (25 BITS)



RS422 DATA OUTPUTS

### SSI CONNECTION

Type	Vcc	Gnd	Clk+	Data+	Rax	Data-	Clk-	Direction	OUT1	OUT2
S6	1	2	3	4	5	6	7	9	10	11
S7	BN Brown	WH White	GN Green	GY Grey	BU Blue	PK Pink	YE Yellow	RD Red	BK Black	RD/BU Red/ Blue
M8	8	1	3	2	6	10	11	5	4	9

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

	∅ shaft	Power supply	Outputs	Code	Resolution			Connection	Connection orientation
PHO5	14 : 14mm	P : 5 to 30Vdc	SS : SSI without parity	G : Gray	13 B12 D5			S6 : M23 12 pins clockwise	R : radial
					Resolution	Nb of turns	Nb data		
					13: 13 bits	B12: 12 bits	D5: 25 bits	S7 : cable	Example : R020 : radial cable of 2m
PHM5	10 //	P	SS	G	13	B12	D5	S7	R050