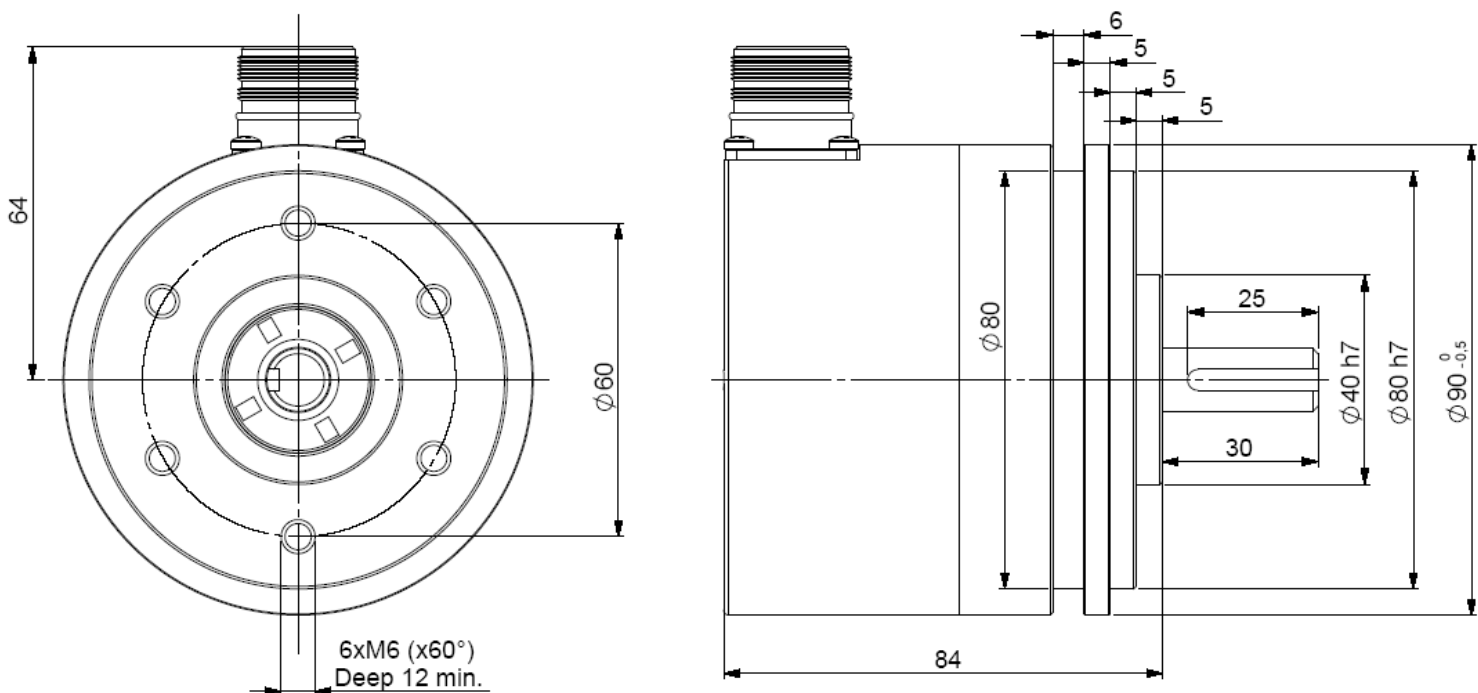


## SSI ABSOLUTE MULTITURN ENCODER, PHM9 RANGE

- Heavy Duty version, 11 & 12 mm solid shaft
- Robustness and excellent resistance to shocks / vibrations
- High protection level IP65
- High performances in temperature -20°C to +85°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



### PHM9\_12 connection S6/S8R (radial M23)



## CARACTERISTIQUES

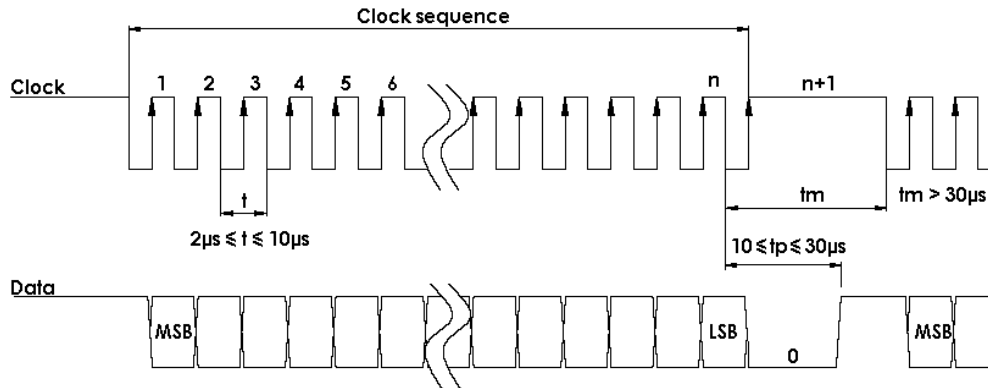
Material	Cover : steel	Shocks (EN60068.2.27)	≤ 500m.s <sup>-2</sup> (during 6 ms)	
	Body: aluminium	Vibrations (EN60068.2.6)	≤ 100m.s <sup>-2</sup> (10 ... 2 000 Hz)	
Shaft	Stainless steel	EMC	EN 61000-6-4, EN 61000-6-2	
Bearings	6001 serie	Isolation	100V (1 min.)	
Maximal loads	Axial : 100 N	Encoder weight (approx.)	1,600 kg	
	Radial : 200 N	Operating temperature	- 20 ... + 85 °C (encoder T°)	
Shaft inertia	≤ 15.10 <sup>-6</sup> kg.m <sup>2</sup>	Storage temperature	- 20 ... + 85 °C	
Torque	≤ 10.10 <sup>-3</sup> N.m	Protection(EN 60529)	IP 65	
Permissible max. speed	6 000 min <sup>-1</sup>	Theoretical mechanical lifetime 10 <sup>9</sup> turns (F <sub>axial</sub> / F <sub>radial</sub> )		
Continuous max. speed	6 000 min <sup>-1</sup>	20 N / 30 N	50 N / 100 N	100 N / 200 N
Shaft seal	Viton double lips	360	18	2,2

## SSI ABSOLUTE MULTITURN ENCODER, PHM9 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

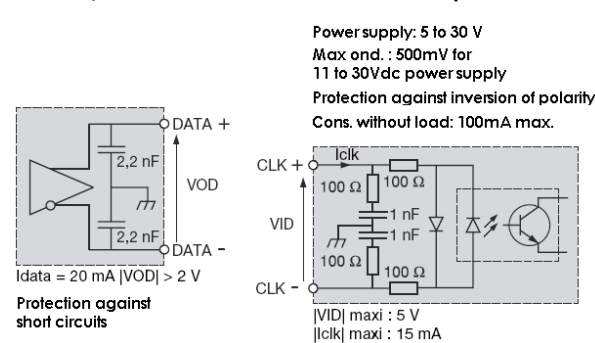
\*Consult us for length > 100m

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

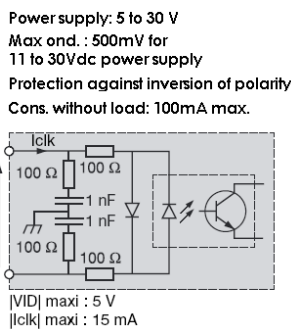
Type	Vcc	Gnd	Clk+	Data+	RAZ	Data-	Clk-	DIRECTION
S6	1	2	3	4	5	6	7	9
S8	8	1	3	2	6	10	11	5

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

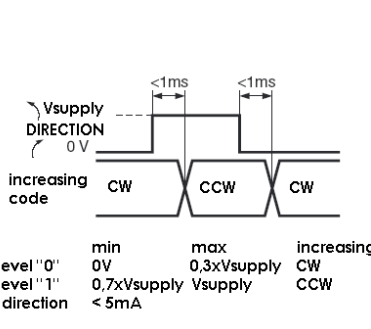
#### Data output RS422



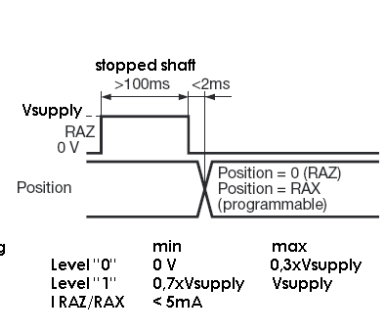
#### Isolated Clk input



#### 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
<b>PHM9</b> Aluminium body, steel cover	<b>11</b> : 11mm	<b>P</b> : 5 to 30Vdc	<b>SS</b> : SSI without parity	<b>B</b> : binary <b>G</b> : Gray	<b>13 B12 D5</b>			<b>S6</b> : M23 12pins CW for SSI transmission <b>S8</b> : M23 12pins CCW for SSI transmission	<b>R</b> : radiale
					<b>Resolution</b>	<b>Nb of turn</b>	<b>Nb data</b>		
<b>PXM9</b> Stainless steel cover & body	<b>12</b> : 12mm				<b>13</b> : 13 bits	<b>B12</b> : 12 bits	<b>D5</b> : 25 bits		
<b>PHM9_</b>	<b>12</b> //	<b>P</b>	<b>SS</b>	<b>G</b> //	<b>13</b>	<b>B12</b>	<b>D5</b> //	<b>S6</b>	<b>R</b>

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