

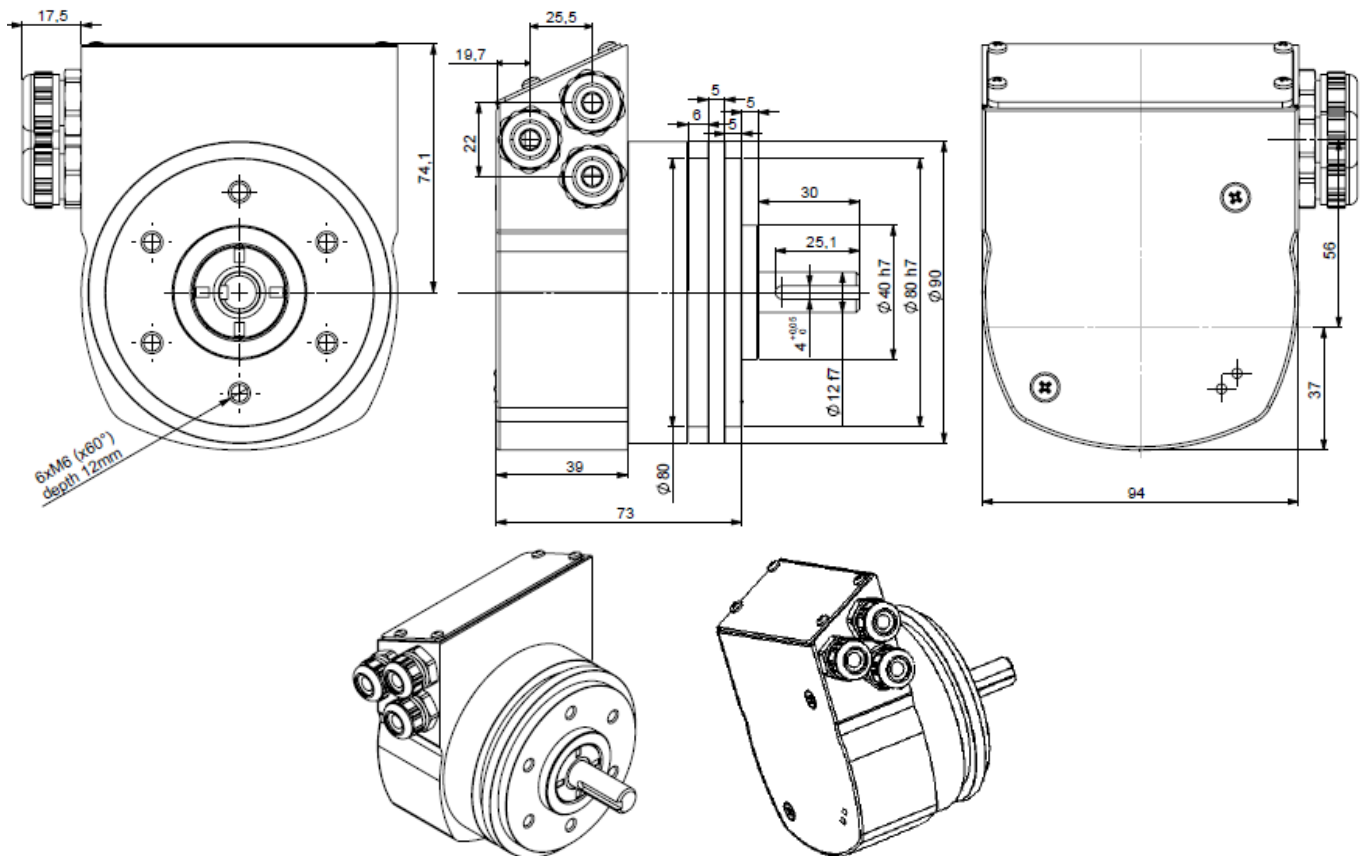
## ABSOLUTE MULTI-TURN ENCODER, PROFIBUS INTERFACE, PHM9

PHM9, 90mm encoder, the new generation of PROFIBUS heavy-duty multi-turn encoder:

- 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 +80°C.
- Universal electronic circuits from 5 to 30Vdc.
- High resolutions available: 8192 (13 bits) per turn.
- Turn counting up to 65 536 (16 bits).
- DPV0, Classe 2, Profil codeur 3.062.
- Also available with SSI, programmable SSI, RS232 interface & CANopen.



### DIMENSION : PHM9 Profibus connection BTR (Terminal box)



### MECHANICAL CHARACTERISTICS

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.)	1,800 kg	
	Radial : 200 N	Operating temperature	- 20 ... + 80 °C (encoder T°)	
Shaft inertia	≤ 15.10 <sup>-6</sup> kg.m <sup>2</sup>	Storage temperature	- 20 ... + 80 °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
		360	18	2,2
Shaft seal	Viton double lips			

## ABSOLUTE MULTI-TURN ENCODER, PROFIBUS INTERFACE, PHM9 SERIE

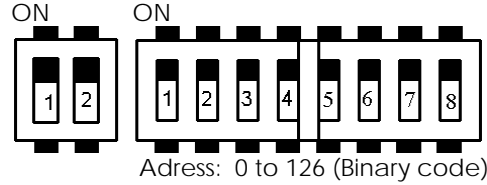
### GENERALITY

**Power supply** : 5-30V consumption <200 mA (160mA typ).

**Transmission frequency**: from 9.6Kbaud to 12Mbaud.

**Electronic interface**: opto-isolated RS 485.

**Adress**: permits the addressing of each encoder in an installation (32 master stations or slaves stations per segment without repetitor, 127 maximum with repetitor).



End line resistance termination: 1, 2 "ON" (Beginning or end line)

Switch - on "ON"	1	2	3	4	5	6	7
=	1	2	4	8	16	32	64

Switch 8 on "OFF".

Example: Adress 5: Switch 1 & 3 on "ON", other on "OFF".

### PARAMETRES PROGRAMMABLES

**Direction** : Permits the definition of the counting direction of the encoder (CW or CCW) following its mechanical position.

**Resolution** : the number of points per turn can be between 0 and 8192.

**Global resolution (MAX RANGE)** : Total number of codes of the encoder (2 to 536 870 912).

**Reset** : defines the value of its actual position.

**Time base** : defines the base time for the speed calculation (10 ms , 100 ms, 1 s, speed in rpm).

### CONNECTION

Integrated terminal box on encoder – "push-in" connection – max 1,5mm<sup>2</sup>.

### ORDERING CODE (Special versions upon request, for ex. special flanges/electronics/connections...)

	Shaft Ø	Supply	Interface	Code	Resolution	Tunrs Nb	Connection	Connection orientation
PHM9 Aluminium bearings housing	12: 12mm	P : 5 to 30Vdc	BG : Profibus	B: Binary	13 : 8192 points per turn (2 <sup>13</sup> )	B16 : 65 536 turns (2 <sup>16</sup> )	BT : Terminal box	R : Radial
PBM9 Stainless steel bearings housing								
Ex: PHM9 _	12 //	P	BG	B //	13	B16 //	BT	R

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