



| PHM5

SSI ABSOLUTE MULTITURN ENCODER



- 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°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



SPECIFICATIONS

Mechanical

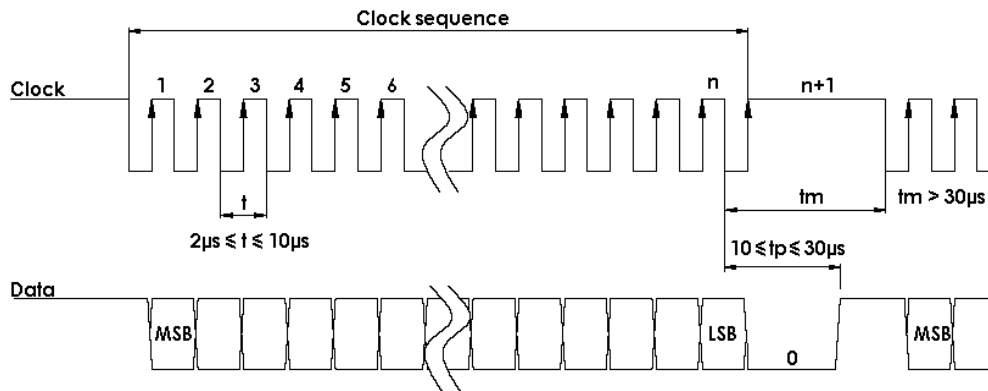
Material	Cover : treated steel
	Body : aluminum
	Shaft : stainless steel
Bearings	6 000 serie
Maximum load	Axial : 50 N
	Radial : 100 N
Shaft inertia	$\leq 1.10^{-6}$ kg.m ²
Torque	$\leq 4.10^{-3}$ N.m
Permissible max. speed	6 000 min ⁻¹
Continuous max. speed	6 000 min ⁻¹
Shock (EN60068-2-27)	≤ 500 m.s ⁻² (during 6 ms)
Vibration (EN60068-2-6)	≤ 100 m.s ⁻² (10 ... 2 000 Hz)
EMC	EN 61000-6-4, EN 61000-6-2
Isolation	100V (1 min.)
Weight (approx.)	0,520 kg
Operating temperature	- 20 ... + 85 °C (encoder T°)
Storage temperature	- 20 ... + 85 °C
Protection(EN 60529)	IP 65 (IP67 with flange option)
Theoretical mechanical lifetime 10⁹ turns (Faxial / Fradial)	25 N / 50 N : 99
	50 N / 100 N : 12

Electrical

Input signal clock CLK	per opto-coupleur
Output signal DATA	line - driver selon RS422
Clock frequency CLK	100kHz – 500kHz
Precision	$\pm \frac{1}{2}$ LSB (13 bits)

Power supply	5 – 30Vdc
Introduction	< 1 s
Cons. without load	< 100mA (typically 50-60mA at 24Vdc)
Position refresh	< 200 μ s

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

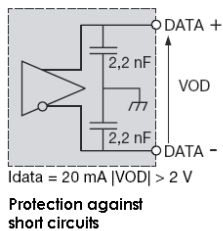
*Consult us for length > 100m

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

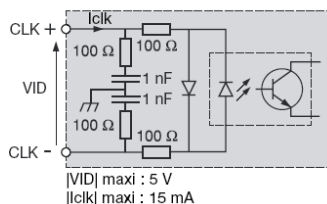
Note : Do not connect other pinouts, connect DIRECTION and RAZ to a potential (RAZ at 0V if not used)

Data output RS422

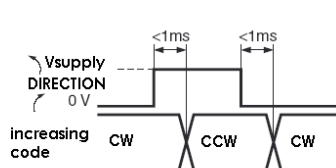


Isolated Clk input

Power supply: 5 to 30 V
Max ond.: 500mV for 11 to 30Vdc power supply
Protection against inversion of polarity
Cons. without load: 100mA max.

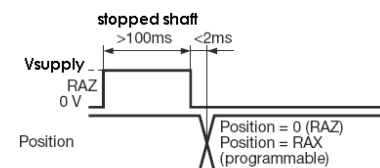


DIRECTION input



Level "0"	min 0V	max 0,3xVsupply	increasing CW
Level "1"	min 0,7xVsupply	max Vsupply	decreasing CCW
I direction	< 5mA		

RAZ / RAX input



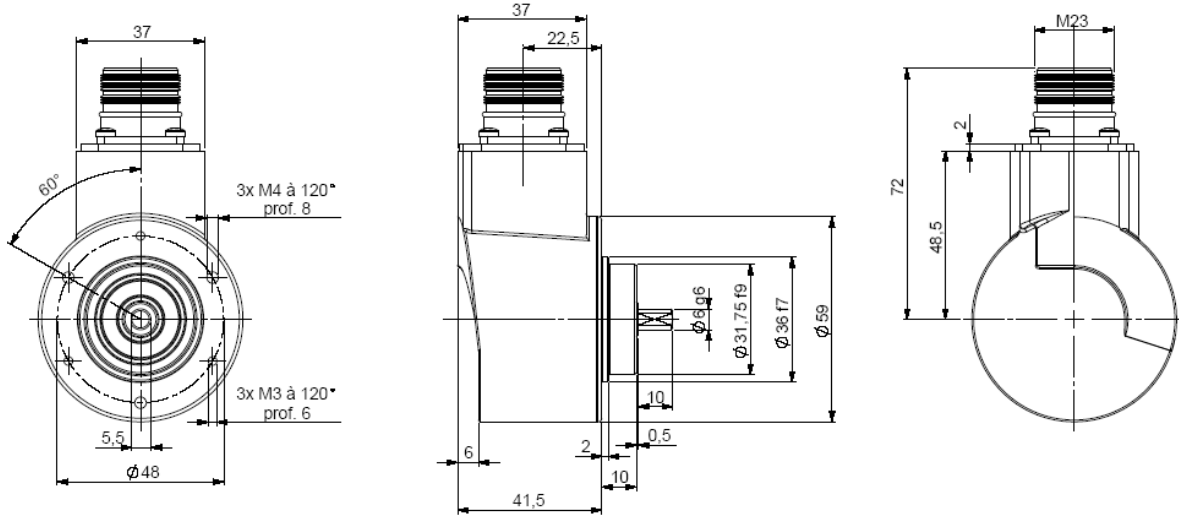
Level "0"	min 0 V	max 0,3xVsupply
Level "1"	min 0,7xVsupply	max Vsupply
I RAZ/RAX	< 5mA	



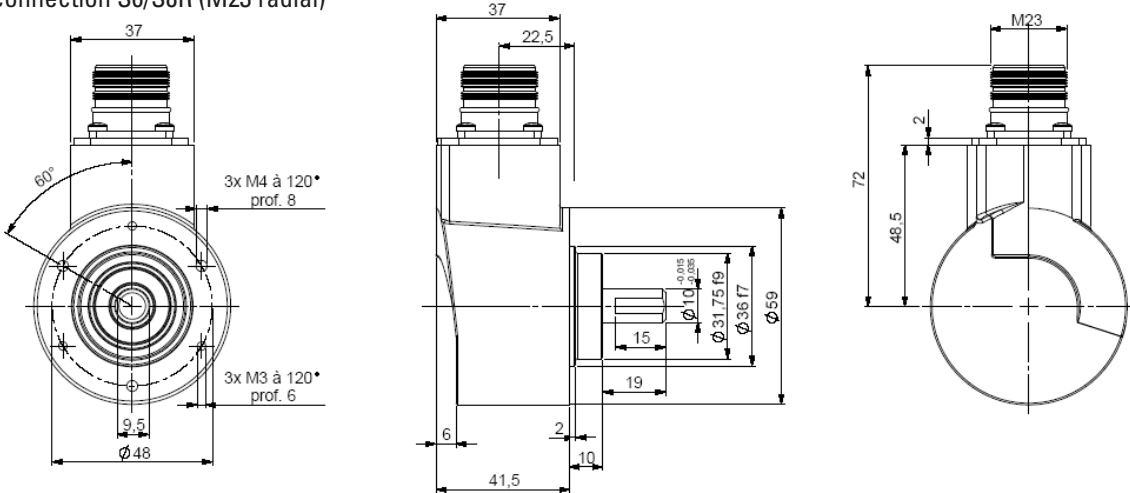
DIMENSIONS

All dimensions are in: mm

PHM5_06 connection S6/S8R (M23 radial)



PHM5_10 connection S6/S8R (M23 radial)

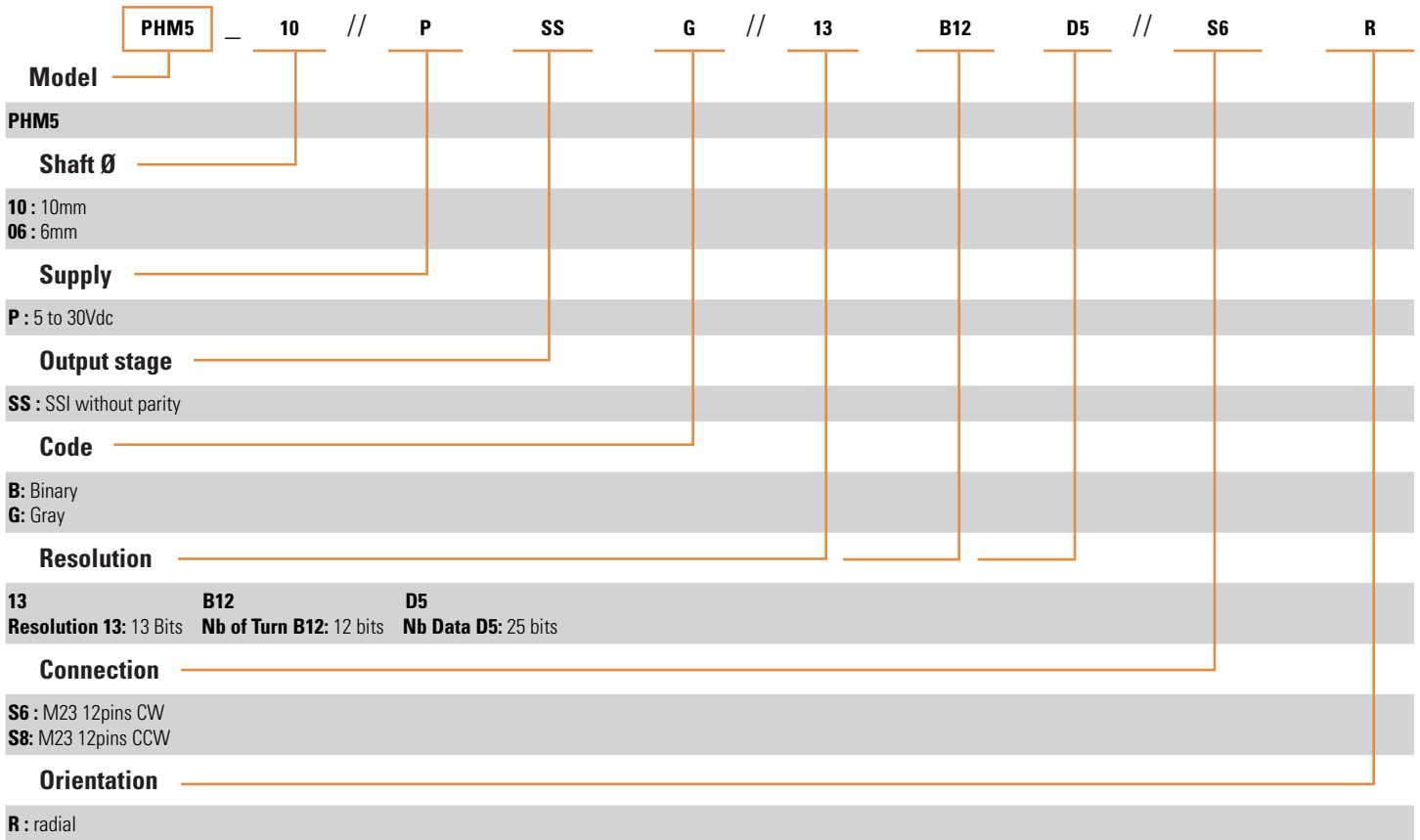




ORDERING OPTIONS

Example : PHM5_10 //PSSG//13B12D5//S6R

(Contact the factory for special versions, ex: special flanges, connections, electronics...)



AGENCY APPROVALS & CERTIFICATIONS



Made In France

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Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

CONTACT US

Americas

+1 (800) 350 2727
sales.beisensors@sensata.com
Europe, Middle East & Africa
 +33 (3) 88 20 8080
position-info.eu@sensata.com

Asia Pacific

sales.isasia@list.sensata.com
 China +86 (21) 2306 1500
 Japan +81 (45) 277 7117
 Korea +82 (31) 601 2004
 India +91 (80) 67920890
 Rest of Asia +886 (2) 27602006 ext 2808