



| PHU9

SSI ABSOLUTE MULTITURN ENCODER



- Version Heavy-Duty, Ø 30mm through shaft, reduction hubs available
- Robustness and excellent resistance to shocks / vibrations
- High performances in temperature -20°C to +80°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



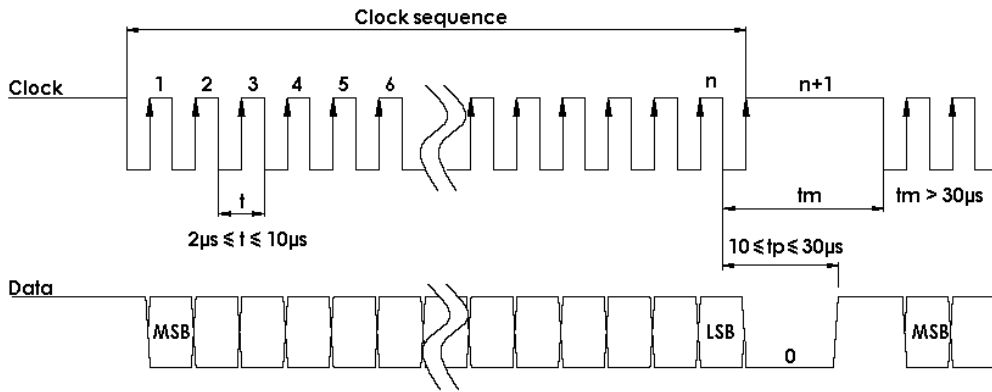
MECHANICAL CHARACTERISTICS

Material	Cover : steel
	Body : aluminum
	Shaft : stainless steel
Bearings	6 807 serial
Maximum loads	Axial : 50 N
	Radial : 80 N
Shaft inertia	$\leq 55.10^{-6}$ kg.m ²
Torque	$\leq 25.10^{-3}$ N.m
Permissible max. speed	6 000 min ⁻¹
Continuous max. speed	6 000 min ⁻¹
Shaft seal	Viton
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.)	0,700 kg
Operating temperature	- 20 ... + 80 °C (encoder T°)
Storage temperature	- 20 ... + 80 °C
Protection(EN 60529)	IP 65
Torque (ring pressure screw)	4.5 N.m
Theoretical mechanical lifetime 10⁹ turns (Faxial / Fradial)	25 N / 40 N : 140
	50 N / 80 N : 17

ELECTRICAL CHARACTERISTIC

Input signal clock CLK	per opto-coupler
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

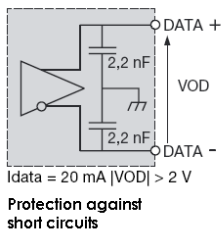
*Consult us for length > 100m

SSI CONNECTION (TYPE S6 : BEI SENSORS STANDARD)

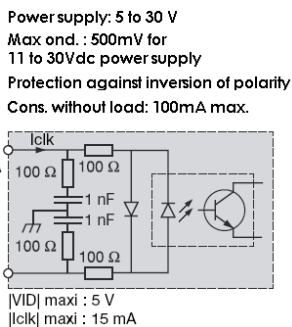
Type	Vcc	Gnd	Clk+	Data+	RAZ	Data-	Clk-	DIRECTION
S6	1	2	3	4	5	6	7	9
S8	8	1	3	2	6	10	11	5
S5	BN/GN Brown/Green	WH/GN White/Green	GN Green	GY Grey	BU Blue	PK Pink	BN Brown	WH White

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

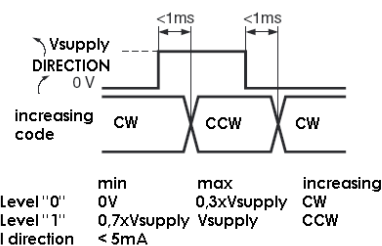
Data output RS422



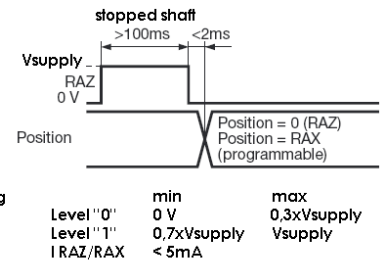
Isolated Clk input



DIRECTION input



RAZ / RAX input

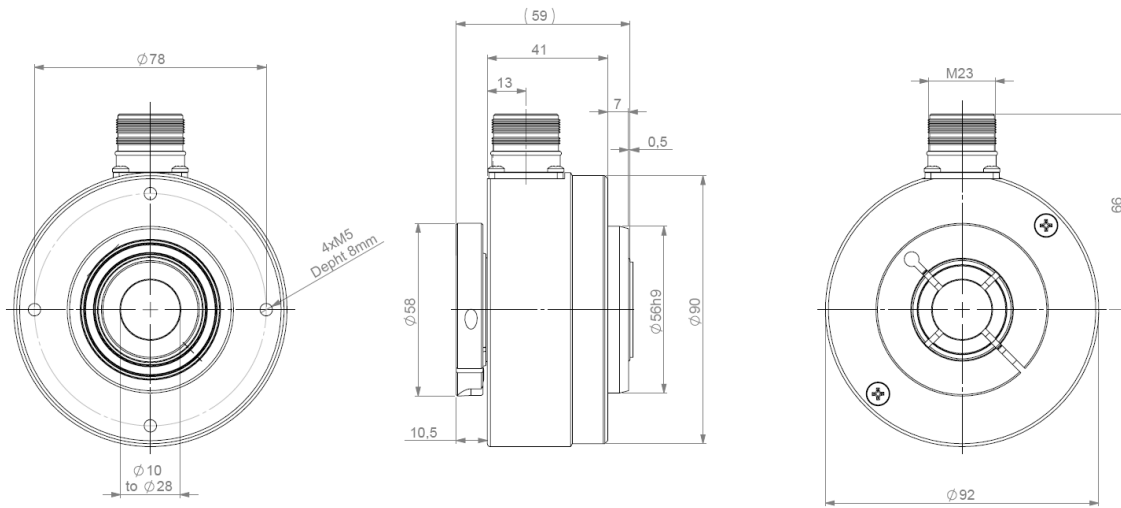




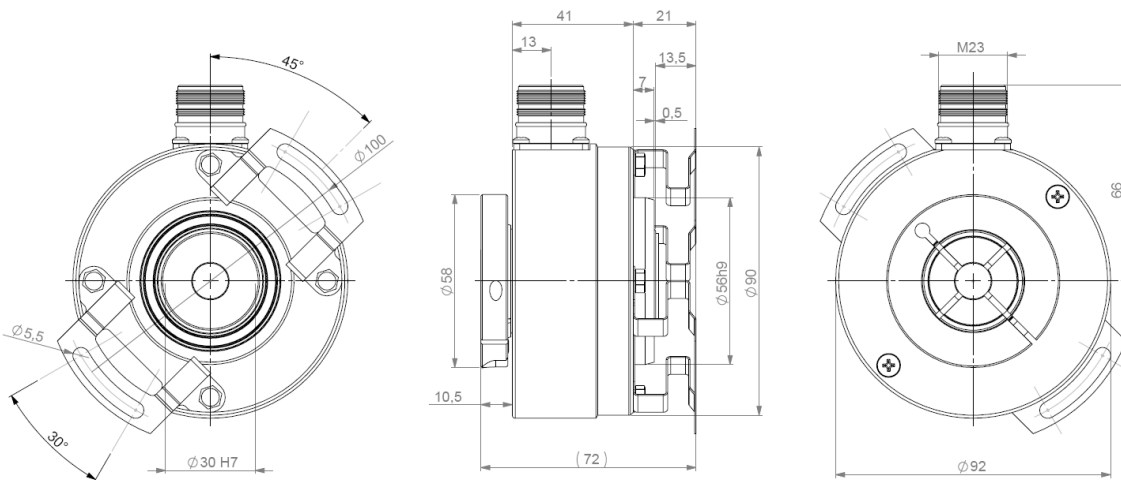
DIMENSIONS

All dimensions are in: inches [millimeters]

PHU9_20 connection S6R / S8R (radial M23) , with reduction hub 9418 mounted in the shaft



PHU9 connection S6R / S8R (radial M23), with reduction hubs 9418 and DAC 9445/009* on the body



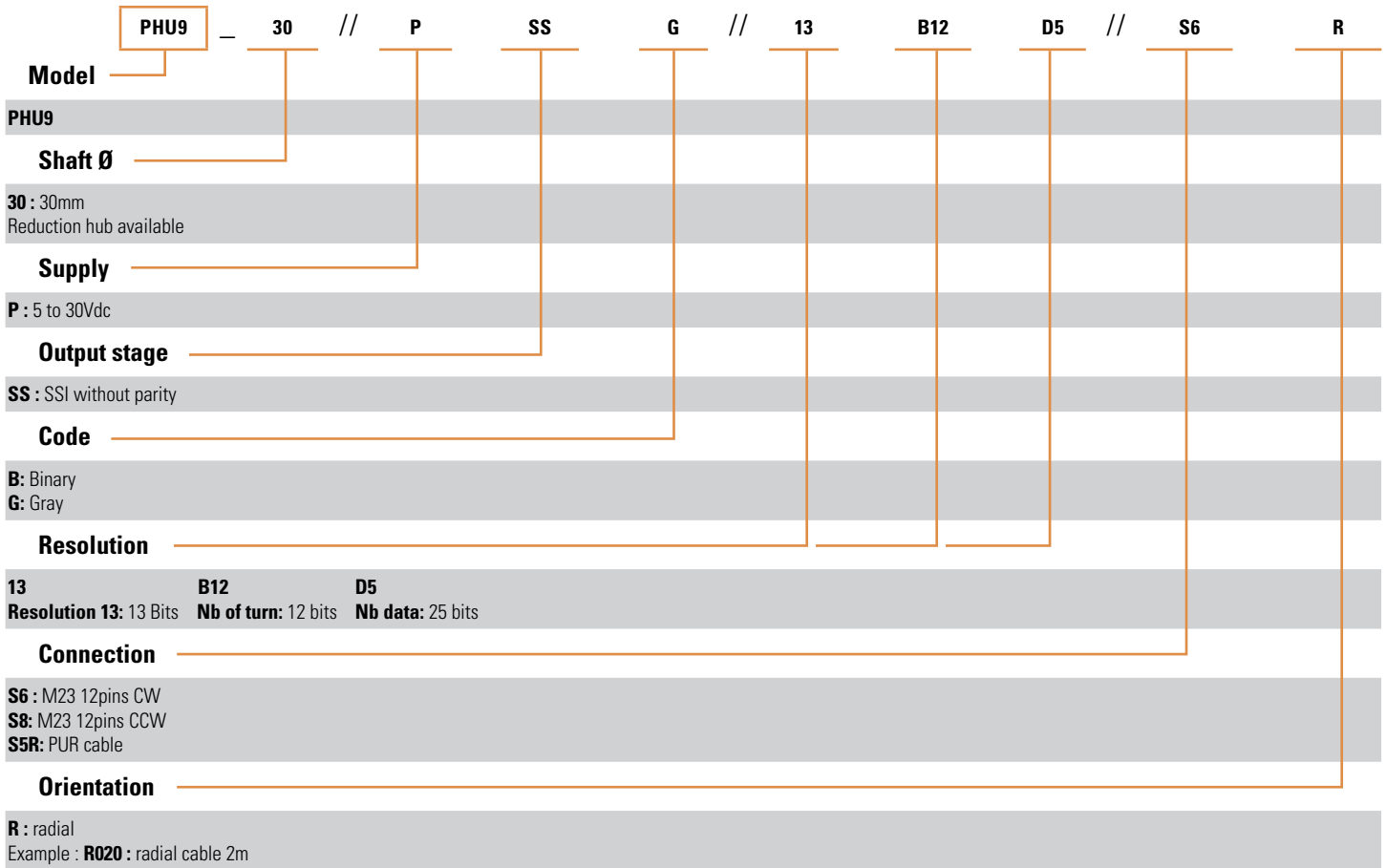
* Accessory to be ordered separately



ORDERING REFERENCE

Example : PHU9_30 // P SS G // 13 B12 D5 // S6 R

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



AGENCY APPROVALS & CERTIFICATES



Made In France

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