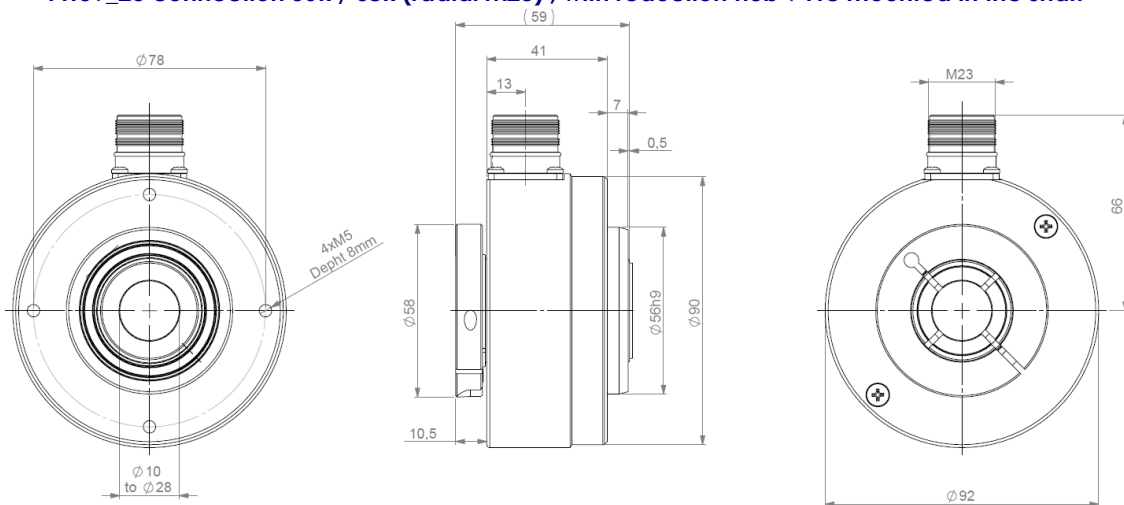


## SSI ABSOLUTE MULTITURN ENCODER, PHU9 RANGE

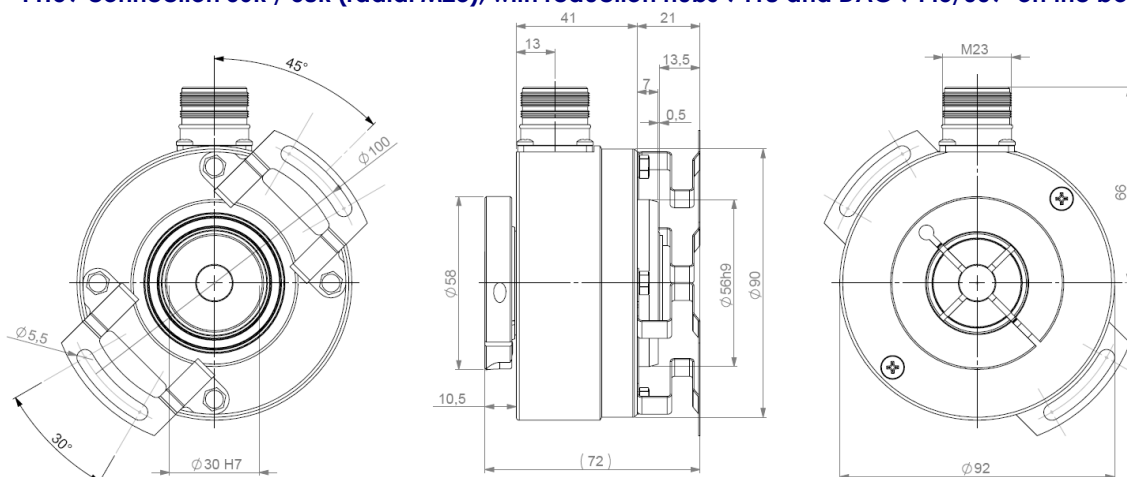
- Version Heavy-Duty, Ø 30mm through shaft, reduction hubs available
- Robustness and excellent resistance to shocks / vibrations
- High performances in temperature -20°C to +80°C
- Isolated SSI interface, clock from 100 to 500 kHz
- Universal electronic circuits from 5 to 30Vdc
- Protection against 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



### 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

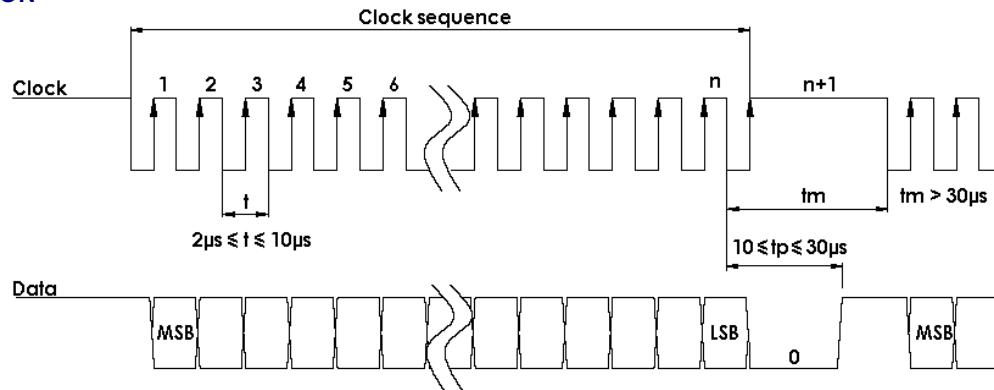
Material	Cover : steel	Shocks (EN60068-2-27)	≤ 500 m.s <sup>-2</sup> (during 6 ms)
	Body : aluminium	Vibrations (EN60068-2-6)	≤ 100 m.s <sup>-2</sup> (10 ... 2 000 Hz)
	Shaft : stainless steel	EMC	EN 61000-6-4, EN 61000-6-2
Bearings	6 807 serial	Isolation	100V (1 min)
Maximum loads	Axial : 50 N	Encoder weight (approx)	0,700 kg
	Radial : 80 N	Operating temperature	- 20... + 80 °C (encoder T <sup>9</sup> )
Shaft inertia	≤ 55.10 <sup>-6</sup> kg.m <sup>2</sup>	Storage temperature	- 20... + 80 °C
Torque	≤ 25.10 <sup>-3</sup> N.m	Protection(EN 60529)	IP 65
Permissible max. speed	6 000 min <sup>-1</sup>	Torque (ring pressure screw)	nominal: 3N.m, break: 4N.m
Continuous max. speed	3 600 min <sup>-1</sup>	Theoretical mechanical lifetime 10 <sup>9</sup> turns (F <sub>axial</sub> / F <sub>radial</sub> )	
Shaft seal	Viton	25 N / 40 N : 140	50 N / 80 N : 17

## SSI ABSOLUTE MULTITURN ENCODER, PHU9 RANGE

### ELECTRICAL CHARACTERISTIC

Input signal clock CLK	per opto-coupler	Power supply	5 – 30Vdc
Output signal DATA	line - driver RS422	Introduction	< 1 s
Clock frequency CLK	100kHz – 500kHz	Cons. without load	< 100mA (typically 50-60mA at 24Vdc)
Precision	$\pm \frac{1}{2}$ LSB (13 bits)	Position refresh	< 200 $\mu$ 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

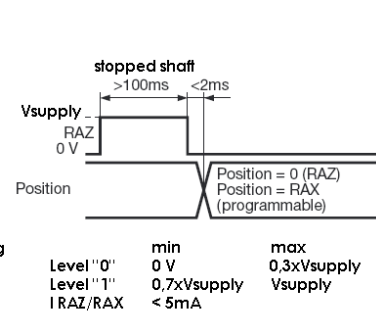
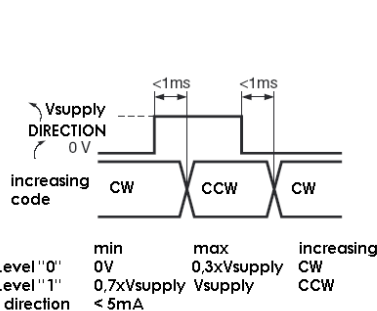
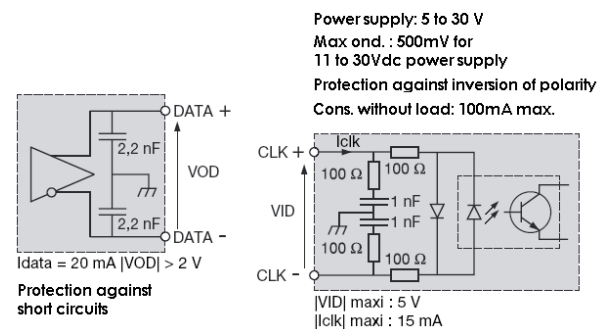
Note : Do not connect other pinouts, connect DIRECTION and RAZ to a potential (RAZ at 0V if not used)

#### Data output RS422

#### Isolated Clk input

#### DIRECTION input

#### RAZ / RAX input



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

	Shaft Ø	Supply	Output stage	Code	Resolution			Connection	Orientation
PHU9	30 : 30mm Reduction hub available	P : 5 to 30Vdc	SS : SSI sans parité	B: binary G: Gray	13 B12 D5			S6: M23 12 pins CW S8: M23 12 pins CCW	R : radial
					Resolution	Nb of turn	Nb data		
					13: 13 bits	B12: 12 bits	D5: 25 bits	S5R : PUR cable	Example: R020: radial cable 2m
PHU9 _	30 //	P	SS	G //	13	B12	D5 //	S6	R

Made in France