

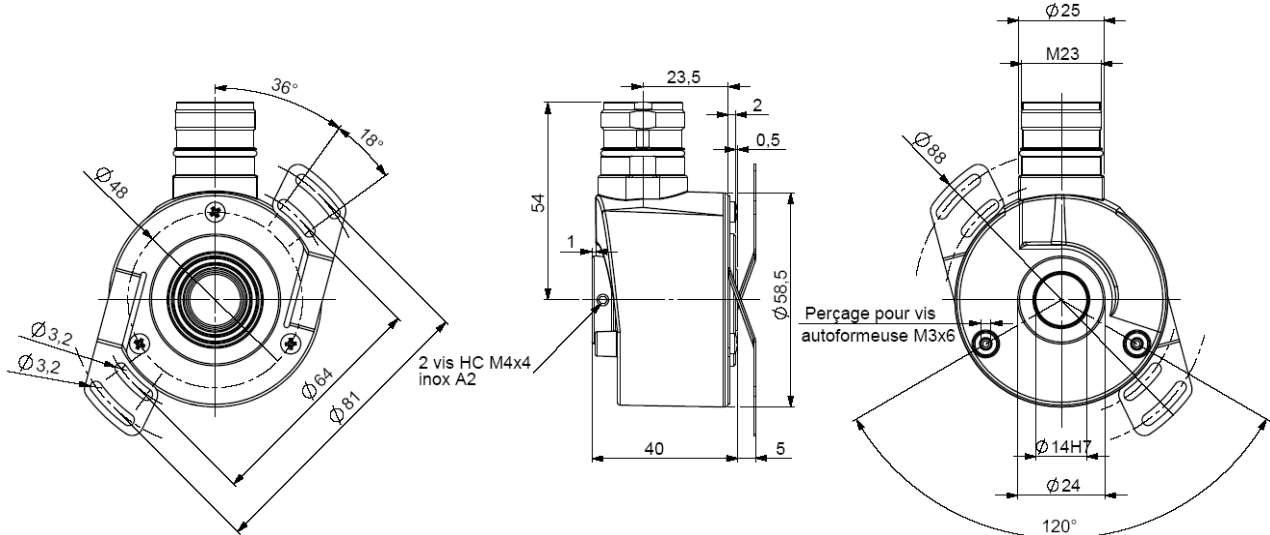
## SSI ABSOLUTE SINGLE TURN ENCODERS, CHO5 RANGE

CHO5, the new generation of SSI absolute single turn encoders :

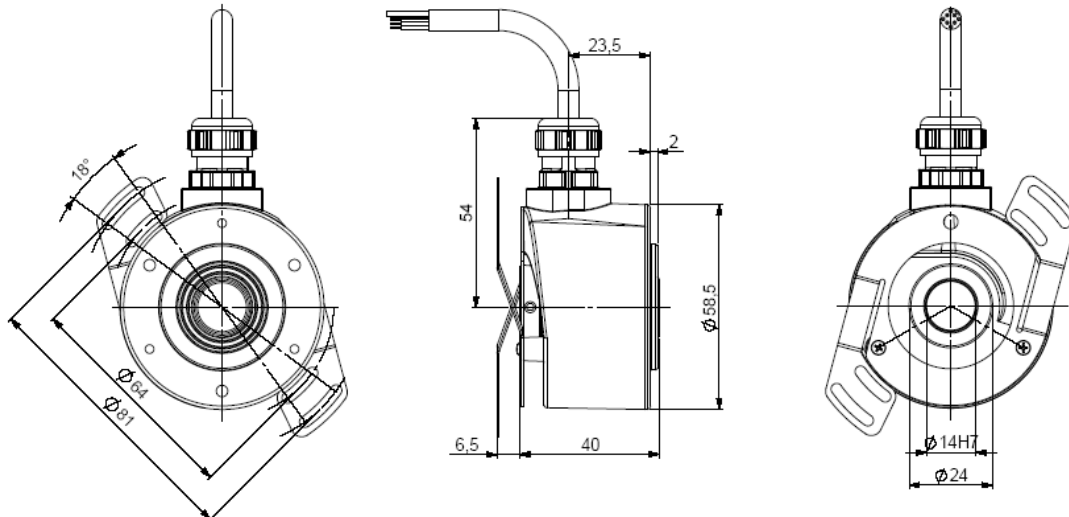
- Through hollow shaft version Ø14mm, with reduction hubs in aluminium of 6, 8, 10 and 12 mm
- Robustness and excellent resistance to shocks / vibrations
- High protection level IP65
- High resolutions possibility, up to 16 bits (Gray or binary)
- Universal power supply from 5 to 30 Vdc
- High performances in temperature -20°C to 90°C (option -40°C to 100°C)
- Standard DIRECTION and RESET input
- Numeric or sine incremental outputs option



### CHO5\_14 connection S6R (radial M23), DAC 9445/015\* mounted on body



### CHO5\_14 connection S5R (radial cable), DAC 9445/015\* mounted on the cover



\* Accessory to be ordered separately

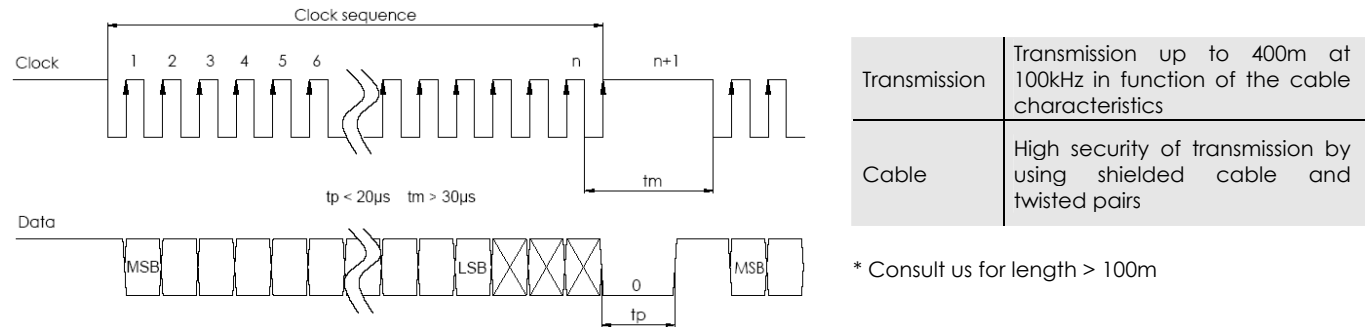
Material	Cover : zinc alloy	Shocks (EN60068-2-27)	≤ 500 m.s <sup>-2</sup> (during 6 ms)
	Body: aluminium	Vibrations (EN60068-2-6)	≤ 100 m.s <sup>-2</sup> (10 ... 2 000 Hz)
	Shaft : stainless steel	EMC	EN 61000-6-4, EN 61000-6-2
Bearings	6 803 serie	Isolation	1 000 V eff
Maximum loads	Axial : 20 N	Encoder weight (approx.)	0,270 kg
	Radial : 50 N	Operating temperature	- 20 ... + 90°C (Encoder T°)
Shaft inertia	≤ 2,2.10 <sup>-6</sup> kg.m <sup>2</sup>	Storage temperature	- 40... + 100°C
Torque	≤ 6.10 <sup>-3</sup> N.m	Protection(EN 60529)	IP 65
Permissible max. speed	9 000 min <sup>-1</sup>	Torque (ring pressure screw)	nominal: 1.5 N.m, break: 2.0 N.m
Continuous max. speed	6 000 min <sup>-1</sup>	Theoretical mechanical lifetime 10 <sup>9</sup> turns (F <sub>axial</sub> / F <sub>radial</sub> )	
Shaft seal	Viton	10N / 25N : 230	20N / 50N : 29

## SSI ABSOLUTE SINGLE TURN ENCODERS, CHO5 RANGE

### ELECTRICAL CHARACTERISTIC

Input signal clock CLK	per optocoupler	Clock frequency CLK	<ul style="list-style-type: none"> <li>• 100kHz to 1MHz for 13 bits encoder</li> <li>• <math>100\text{kHz} - F_{\text{max}} = 10^4 / (\text{resolution in bits} - 10)</math> for encoder &gt;13bits, ex : <math>F_{\text{max}}=166\text{kHz}</math> for 16 bits encoder</li> </ul>
Output signal DATA	line - driver RS422		
Power supply	5 – 30Vdc	Interrogation frame	<ul style="list-style-type: none"> <li>n=13 bits for 13 bits resolution</li> <li>n=21bits for &gt;13bits resolution</li> </ul>
Introduction	< 200ms		
Consumption without load	Max. 100mA		

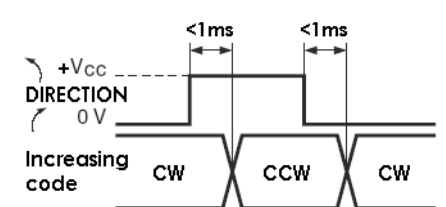
### SSI TRANSMISSION



### CONNECTIQUE STANDARD SSI

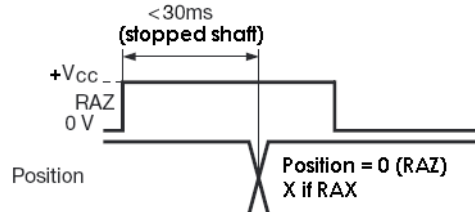
Type	+ Vcc	0 V	Clk+	Data+	RAZ	Data-	Clk-	DIRECTION
S6	1	2	3	4	5	6	7	9
S5	BN/GN Brown/Green	WH/GN White/Green	GN Green	GY Grey	BU Blue	PK Pink	BN Brown	WH White
S8	8	1	3	2	6	10	11	5

#### DIRECTION input



	min	max	Increasing
Level "0"	0 V	$0,3x(+V_{CC})$	CW
Level "1"	$0,7x(+V_{CC})$	$+V_{CC}$	CCW
I direction	< 5mA		

#### RAZ / RAX input



	min	max
Level "0"	0 V	$0,3x(+V_{CC})$
Level "1"	$0,7x(+V_{CC})$	$+V_{CC}$
I rax/rax	< 5mA	

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

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

	Shaft Ø	Supply	Output stage	Code	Resolution	Connection	Orientation
CHO5	14 : 14mm Shaft reduction hubs available up to 6mm	P : 5 to 30Vdc	CS : SSI without parity CP : SSI even parity CI : SSI odd parity	B : Binary G : Gray	Power of 2 13: 13 bits standard option: 14: 14 bits to 16: 16 bits	S6 : M23 12pins CW for SSI transmission S8: M23 12pins CCW for SSI transmission S5 : SSI cable, cable gland output	R : radial  Example : R020 : radial cable of 2m
CHO5	10	P	CS	G	13	S6	R

#### Monitoring function available as option :

- of the code coherence
- of the LED internal regulated current loop
- of temperature range with 2 limits

Consult us

#### Entry / output available as option:

- RAX input (reset to a value X, manufacture setting)
- ERROR output for monitoring functions
- Sine & Cosine outputs without index, 2048ppr (option: 4096 ppr)
- A & B incremental outputs without index, 2048ppr (option: 4096 ppr)

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