

PRELIMINARY - SSI ABSOLUTE SINGLE TURN ENCODERS, CHO5S14/OM RANGE

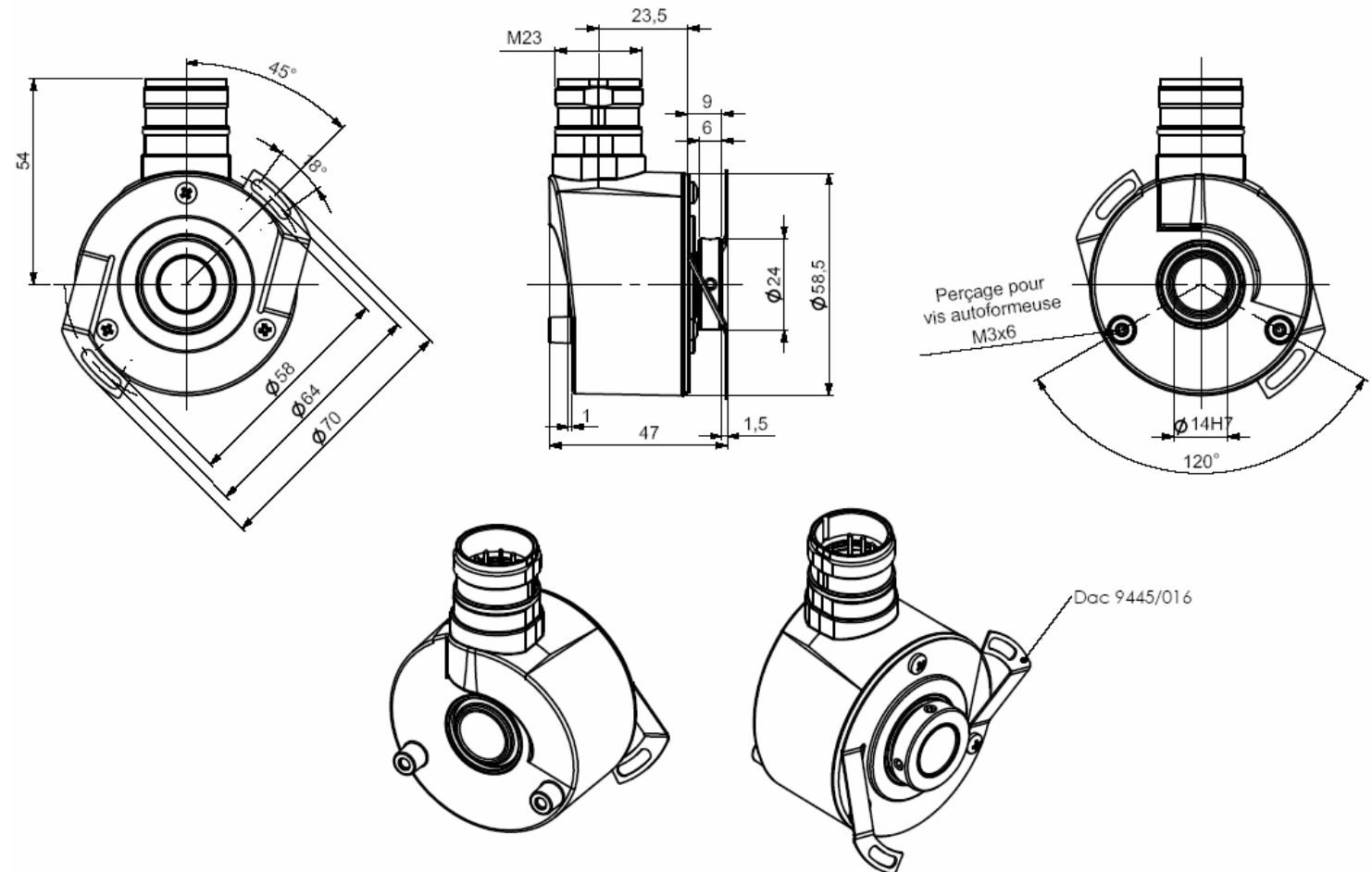
THROUGH SHAFT ENCODER, TIGHTENING RING AT THE LEVEL OF THE BODY

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 20 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



CHO5S14/OM S6R connection (radial M23), DAC 9445/016* mounted on the body



* Accessory to be ordered separately

Material	Cover : zinc alloy
	Body: aluminium
	Shaft : stainless steel
Bearings	6 803 serie
Maximal loads	Axial : 20 N
	Radial : 50 N
Shaft inertia	$\leq 2,2 \cdot 10^{-6}$ kg.m ²
Torque	$\leq 6 \cdot 10^{-3}$ N.m
Permissible max. speed	9 000 min ⁻¹
Continuous max. speed	6 000 min ⁻¹
Shaft seal	Viton

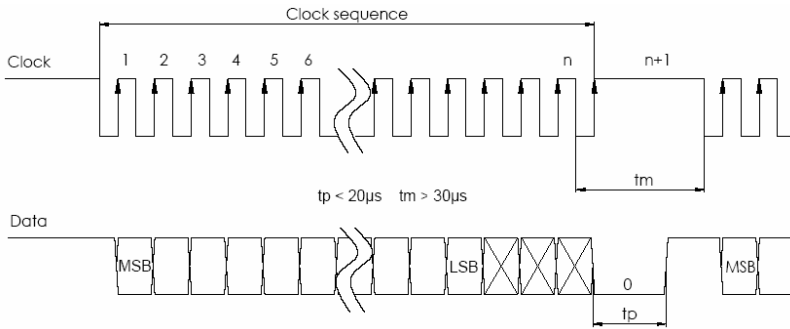
Shocks (EN60068-2-27)	≤ 500 m.s ⁻² (during 6 ms)
Vibrations (EN60068-2-6)	≤ 100 m.s ⁻² (10 ... 2 000 Hz)
EMC	EN 61000-6-4, EN 61000-6-2
Isolation	1 000 V eff
Encoder weight (approx.)	0,270 kg
Operating temperature	- 20 ... + 90°C (Encoder T°)
Storage temperature	- 40... + 100°C
Protection(EN 60529)	IP 65
Torque (ring pressure screw)	nominal: 1.5 N.m, break: 2.0 N.m
Theoretical mechanical lifetime 10 ⁹ turns (F _{axial} / F _{radial})	
10N / 25N : 230	20N / 50N : 29

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ELECTRICAL CHARACTERISTIC

Input signal clock CLK	per optocoupler	Clock frequency CLK	<ul style="list-style-type: none"> 100kHz to 1MHz for 13 bits encoder 100kHz - $F_{max} = 10^6 / (\text{resolution in bits} - 10)$ for encoder > 13bits, ex : $F_{max} = 166\text{kHz}$ for 16 bits encoder
Output signal DATA	line - driver RS422		
Power supply	5 - 30Vdc	Interrogation frame	<ul style="list-style-type: none"> n=13 bits for 13 bits resolution n=21 bits for >13bits resolution
Introduction	< 200ms		
Consumption without load	Max. 100mA		

SSI TRANSMISSION



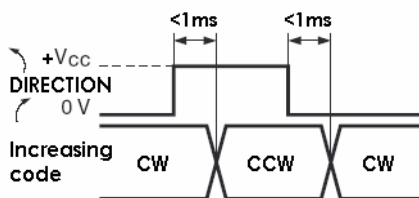
Transmission	Transmission up to 400m at 100kHz in function of the cable characteristics
Cable	High security of transmission by using shielded cable and twisted pairs

* Consult us for length > 100m

CONNECTIQUE STANDARD SSI

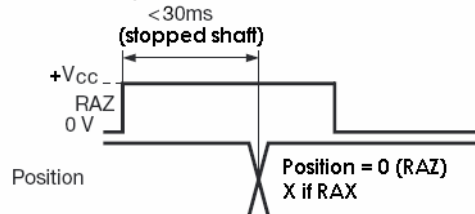
Type	+ Vcc	0 V	Clk+	Data+	RAZ	Data-	Clk-	DIRECTION
S6	1	2	3	4	5	6	7	9
S5	BN/GN Brown/Green	WH/GN White/Green	GN Green	GY Grey	BU Blue	PK Pink	BN Brown	WH White
S8	8	1	3	2	6	10	11	5

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	$< 5\text{mA}$		

RAZ / RAX input



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

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	Ring	Supply	Output stage	Code	Resolution	Connection	Orientation
CHO5S	14 : 14mm	Tightening ring at the level of the body	P : 5 to 30Vdc	CS : SSI without parity CP : SSI even parity CI : SSI odd parity	B : Binary G : Gray	Max: 20 bits, power of 2 13: 13 bits to 13: 13 bits 20 bits: consult us	S6 : M23 12pins CW for SSI transmission	R : radial
	Shaft reduction hubs available up to 6mm						S8 : M23 12pins CCW for SSI transmission	
	15: 15mm option						S5 : SSI cable, cable gland output	Example : R020 : radial cable of 2m
CHO5S	14 /	OM /	P	CS	G //	13 //	S6	R

Monitoring function available in option :

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

Consult us

Entry / output available in 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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