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DHO5S

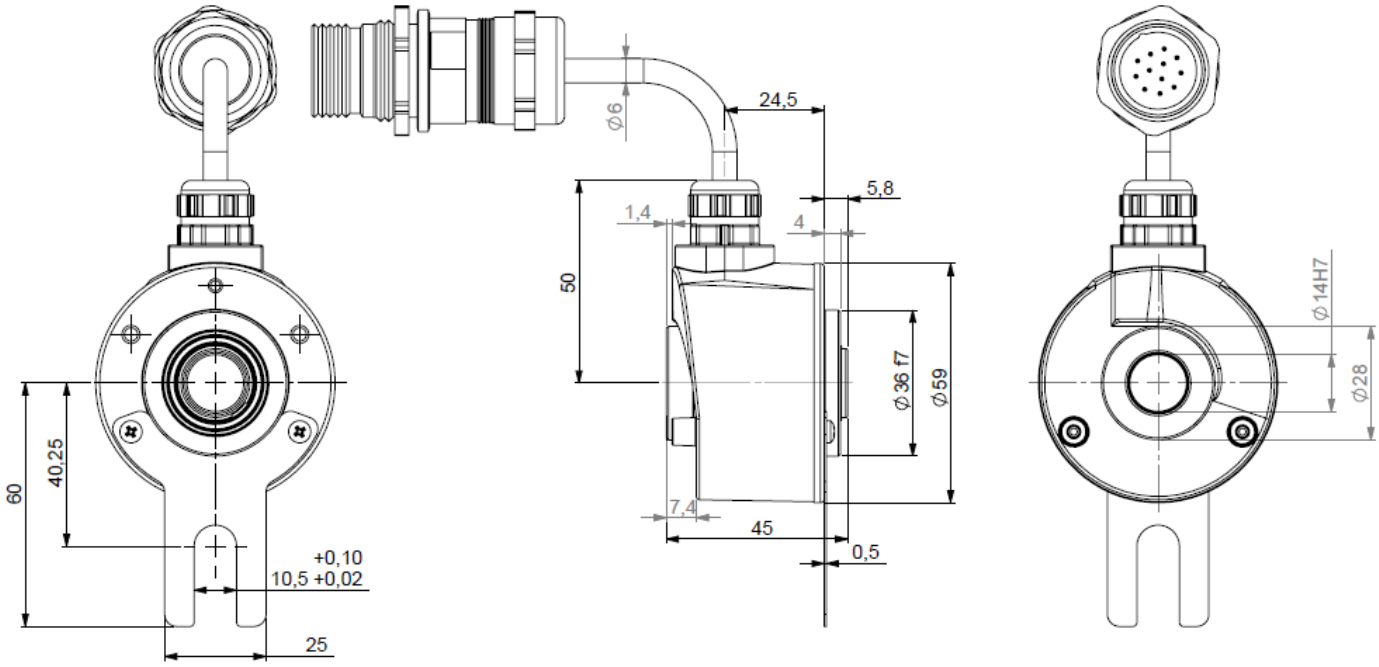
INCREMENTAL ENCODERS, DHO5S HEAVY-DUTY RANGE, 120°C

DHO5S encoders are specially designed for hoisting motors application:

- Through hollow shaft version Ø14mm,
- Robustness and excellent resistance to shocks / vibrations ''long life system'',
- High protection level IP65,
- Electronics: 5Vdc - RS422 – TTL circuits,
- High performances in temperature –30°C to 120°C,
- Resolution: 1024 ppr,
- Connection: cable output with M23 connector,
- Easy mounting thanks to adapted DAC (Anti-Coupling Device).

HEAVY DUTY

DHO5S DIMENSIONS



MECHANICAL CHARACTERISTICS

Material	Cover : zinc alloy	Permissible max. speed	6 000 min^{-1}
	Body : aluminium	Continuous max. speed	4 000 min^{-1}
	Shaft : stainless steel	Shocks (EN60068-2-27)	≤ 2 000 $m.s^{-2}$ (during 6 ms)
Bearings	Sealed ball bearings	Vibrations (EN60068-2-6)	≤ 100 $m.s^{-2}$ (55 ... 2 000 Hz)
	High temperature grease	EMC	EN 50081-1, EN 61000-6-2
Maximum loads	Axial : 20 N	Isolation	1 000 V eff
	Radial : 50 N	Encoder weight (approx.)	0,500 kg
Shaft inertia	≤ 2,2.10^{-6} $kg.m^2$	Operating temperature	- 30 ... + 120°C (encoder T°)
Torque	≤ 6.10^{-3} N.m	Storage temperature	- 40 ... + 100°C
Protection(EN 60529)	IP 65	Torque (ring pressure screw)	nominal: 1.5 N.m, break: 2.0 N.m

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CE

OUTPUT SIGNALS

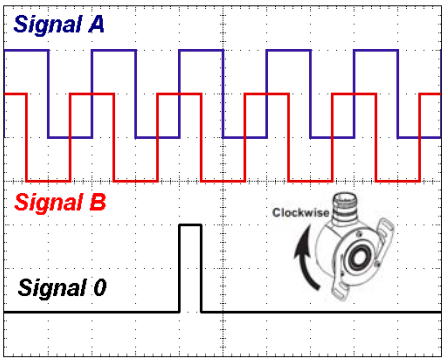
Signals A, B, 0

The channel B (mounting front) arrives before A clockwise seen from the bearings housing - DAC side.

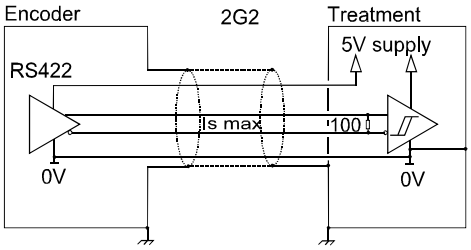
Period : 360° - Cycle ratio : 180°
The shift a between each fronts is given by the formula a > 135/F (a in time in microsecond, F frequency in kHz, ex:100kHz, a > 1,35µs)

The 90° electrical phase-shift between A and B signals determines the rotation direction:

- clockwise (seen from DAC side) during the mounting front of A, B signal is ''1'',
- counter clockwise, during mounting front of A, B channel is ''0''.



DIGITAL OUTPUT SIGNALS



Electronic 2G2 – 150kHz
Supply : 5Vdc ± 10%
Cons. without load : 75mA max
Current per channel : 40mA max
0 max (Is=20mA) : V_{ol} = 0,5Vdc
1 min (Is=20mA) : V_{oh} = 4Vdc

TABLE 1: CONNECTION TYPE 0L WHICH CORRESPONDS TO THE ENCODERS

Pinout 1 White	Pinout 2 Brown	Pinout 3 Green	Pinout 4 Yellow	Pinout 5 Grey	Pinout 6 Pink	Pinout 7 Blue	Pinout 8 Red	Pinout 9 NC	Pinout 10 Shield	Pinout 11 Shield	Pinout 12 Shield
0V	+Vcc	A	B	0	A/	B/	0/	NC	Shield	Shield	Shield

DHO5 has a cable output with at the end a welded M23 connector.

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

Type	Shaft Ø	Mechanics	Supply	Output	Signals	Electronics	Resolution	Connection	DAC system
DHO5S	**14** : 14mm	**HT:** Shocksproof & High temperature mechanics	**2** : 5Vdc	**G2** : driver 5Vdc RS422/TTL	**9** : A,A/, B,B/, 0,0/ (0 gated A & B)	**HT:** High temperature electronics	**1 024** max	**G3R004/0L/** 40cm cable & M23 connector Cf table 1	****DG**** 9445/036 DAC system
Ex: DHO5S	**14 /**	**HT /**	**2**	**G2**	**9 /**	**HT /**	**01 024/ /**	**G3R004/0L/**	****DG****

AVAILABLE RESOLUTIONS

50 60 100 120 125 127 150 180 200 240 250 256 300 314 360 375 400 500 512 600 720 750 768 800 927 1000 1024

Made in France