

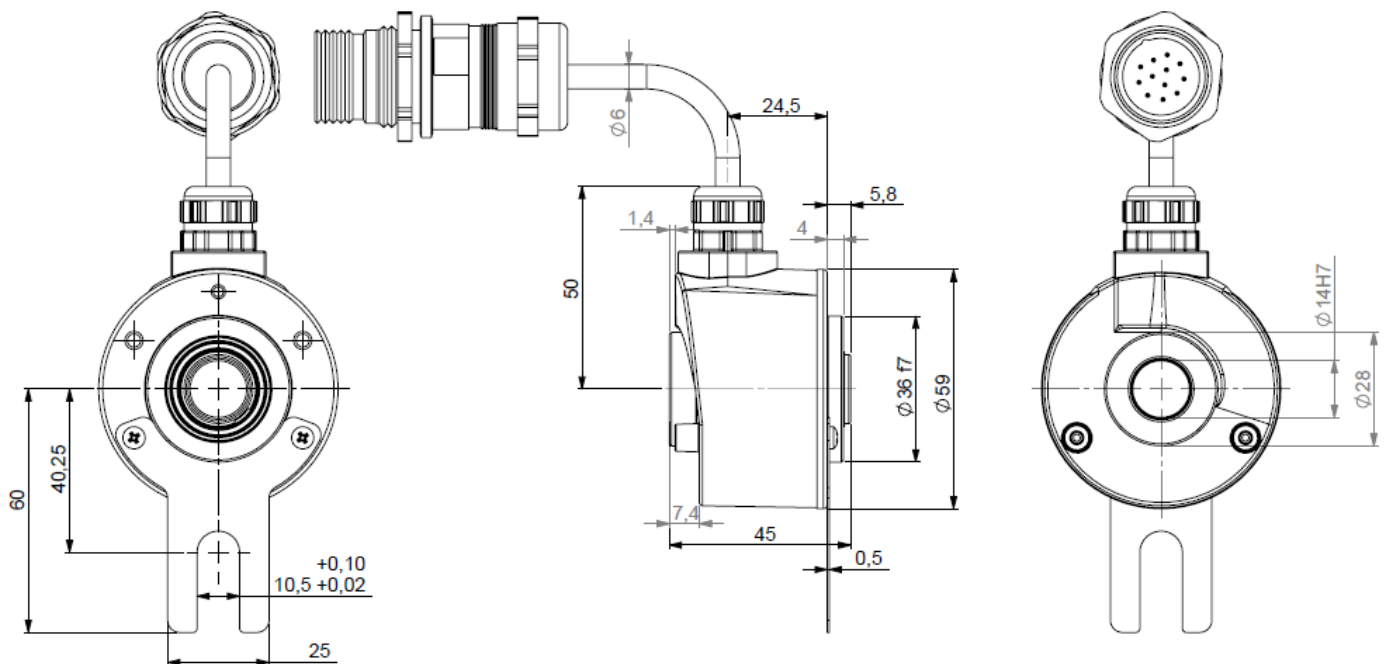
INCREMENTAL ENCODERS, DHO5S HEAVY-DUTY RANGE, 120°C

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).



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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OUTPUT SIGNALS

Signals A, B, 0

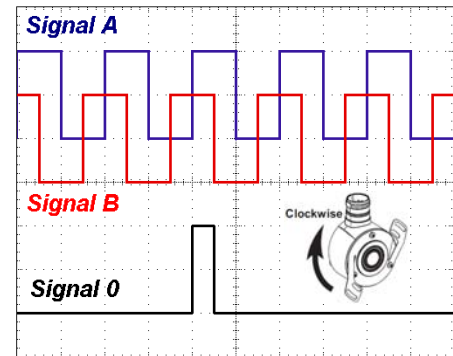
The channel B (mounting front) arrives before A clockwise seen from the bearings housing - DAC side.

Period : 360° - Cycle ratio : 180°

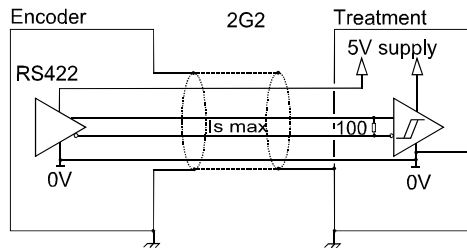
The shift a between each fronts is given by the formula $a > 135/F$ (a in time in microsecond, F frequency in kHz, ex:100kHz, $a > 1,35\mu s$)

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 \pm 10%

Cons. without load : 75mA max

Current per channel : 40mA max

0 max ($I_s=20mA$) : $V_{ol} = 0,5Vdc$

1 min ($I_s=20mA$) : $V_{oh} = 4Vdc$

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

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