



| DHO5S

INCREMENTAL ENCODERS, 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)
- High performances in frequency of output signals : 300 kHz

SPECIFICATIONS

Mechanical

| | |
|-------------------------------------|---|
| Material | Cover : zinc alloy |
| | Body : aluminum |
| | Shaft : stainless steel |
| Bearings | Sealed ball bearings |
| | High temperature grease |
| Maximum loads | Axial : 20 N |
| | Radial : 50 N |
| Shaft inertia | $\leq 2,2 \cdot 10^{-6} \text{ kg.m}^2$ |
| Torque | $\leq 6 \cdot 10^{-3} \text{ N.m}$ |
| Protection (EN 60529) | IP 65 |
| Permissible max. speed | 6 000 min ⁻¹ |
| Continuous max. speed | 4 000 min ⁻¹ |
| Shocks (EN60068-2-27) | $\leq 2\,000 \text{ m.s}^{-2}$ (during 6 ms) |
| Vibrations (EN60068-2-6) | $\leq 100 \text{ m.s}^{-2}$ (55 ... 2 000 Hz) |
| EMC | EN 50081-1, EN 61000-6-2 |
| Isolation | 1 000 V eff |
| Encoder weight (approx.) | 0,500 kg |
| Operating temperature | - 30 ... + 120°C (encoder T°) |
| Storage temperature | - 40 ... + 100°C |
| Torque (ring pressure screw) | 0.7 ... 0.9 N.m |

OUTPUT SIGNALS

Signals A, B, 0

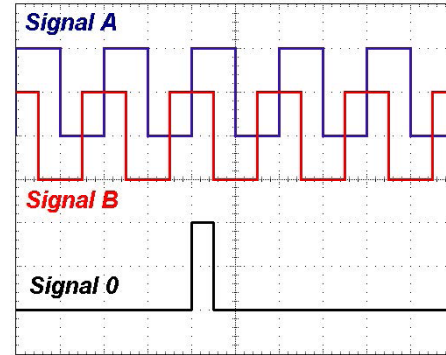
The channel B (mounting front) arrives before A clockwise seen from the bearings housing - DAC side.

Period : 360° - Cycle ratio : 180°

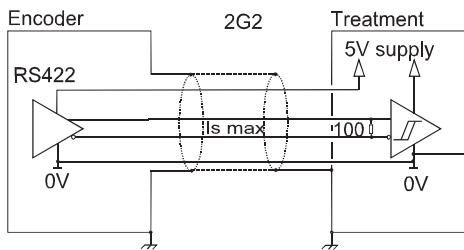
The shift a between each fronts is given by the formula $a > 135/F$ (a in time in microsecond, F frequency in kHz, ex:100kHz, $a > 1,35\mu s$)

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

| 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 | Not Connected | Not Connected |

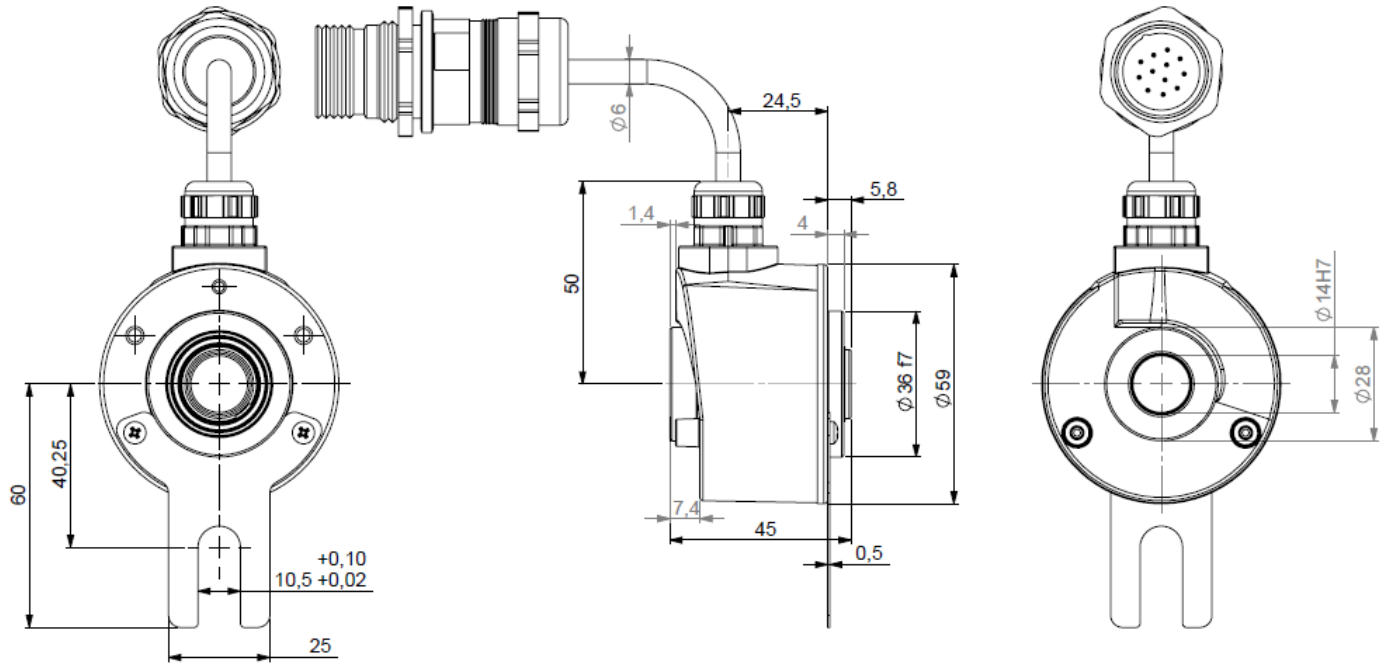
DH05 has a cable output with at the end a welded M23 connector.



DIMENSIONS

All dimensions are in: mm

DH05S



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