



| 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

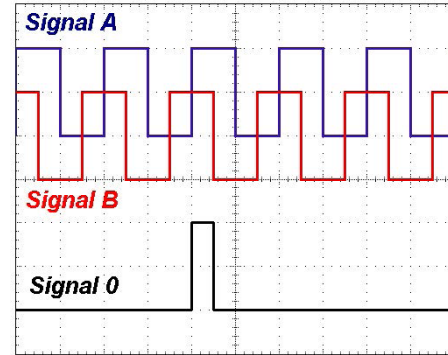
The channel B (mounting front) arrives before A clockwise seen from the bearings housing - DAC side.

Period : 360° - Cycle ratio : 180°

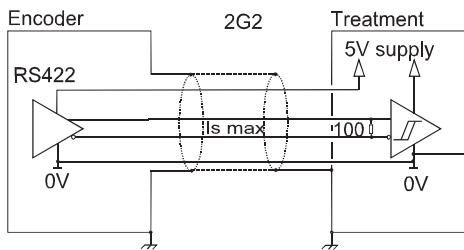
The shift a between each fronts is given by the formula $a > 135/F$ (a in time in microsecond, F frequency in kHz, ex:100kHz, $a > 1,35\mu s$)

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

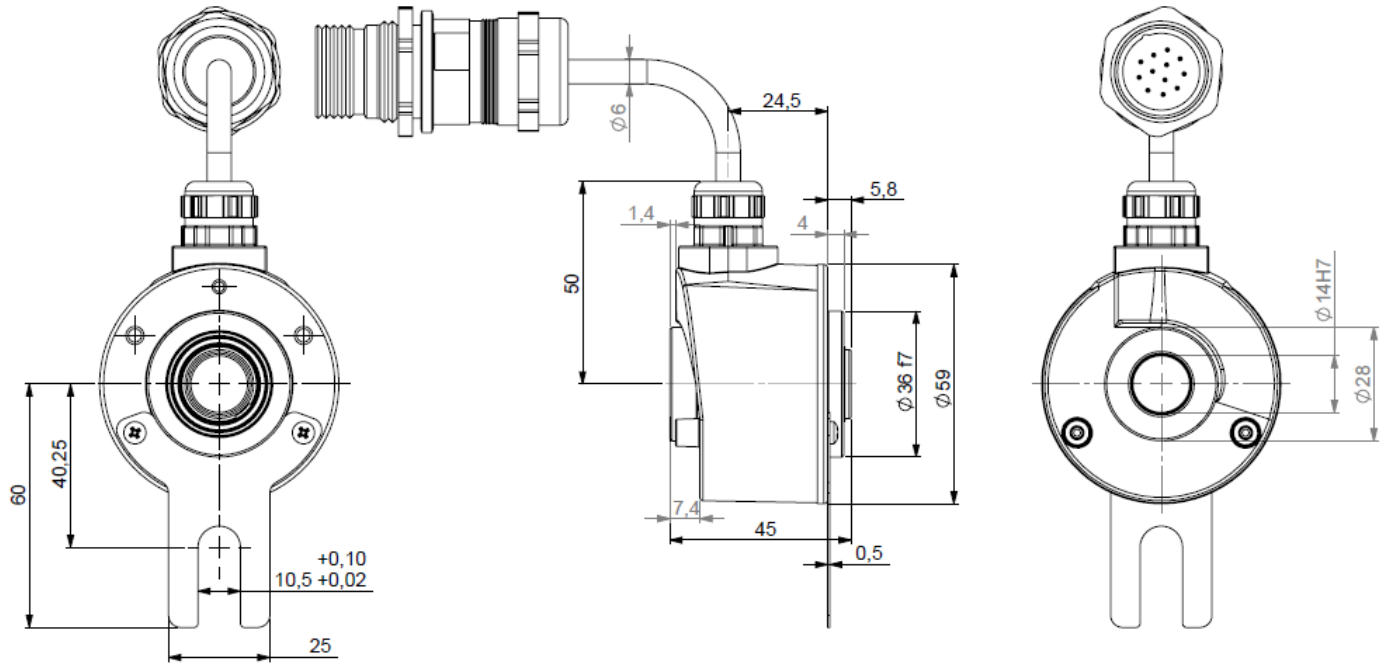
DH05 has a cable output with at the end a welded M23 connector.



DIMENSIONS

All dimensions are in: mm

DH05S



AVAILABLE RESOLUTIONS

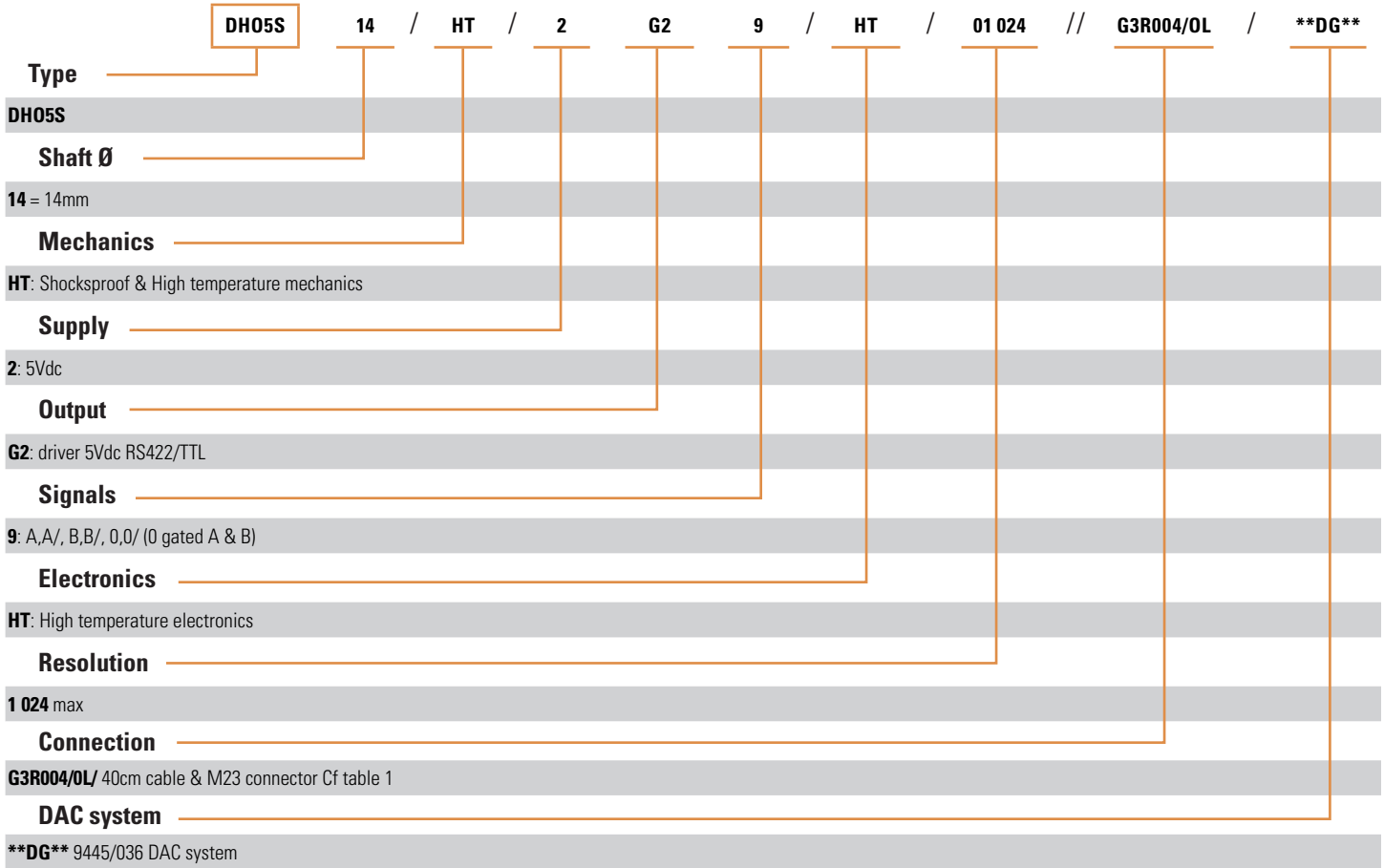
50 60 100 120 125 127 150 180 200 240 250 256 300 314 360 375 400 500 512 600 720 750 768 800 927 1000 1024



ORDERING OPTIONS

Ex: DH05S 14/HT/2G2 9 / HT / 01 024 // G3R004/OL / **DG**

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



AGENCY APPROVALS & CERTIFICATIONS



Made In France

Page 4

Sensata Technologies, Inc. ("Sensata") data sheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products. Sensata data sheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular data sheet. Sensata may make corrections, enhancements, improvements and other changes to its data sheets or components without notice.

Buyers are authorized to use Sensata data sheets with the Sensata component(s) identified in each particular data sheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATA SHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATA SHEETS OR USE OF THE DATA SHEETS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATA SHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

CONTACT US

Americas

+1 (800) 350 2727
sales.beisensors@sensata.com
Europe, Middle East & Africa
 +33 (3) 88 20 8080
position-info.eu@sensata.com

Asia Pacific

sales.isasia@list.sensata.com
 China +86 (21) 2306 1500
 Japan +81 (45) 277 7117
 Korea +82 (31) 601 2004
 India +91 (80) 67920890
 Rest of Asia +886 (2) 27602006 ext 2808