TKW615HT series

Main features

Extremely rugged mechanical parts.
Unbreakable disk up to 1024 pulses per rotation

Housing sealed against oil, moisture and dust.

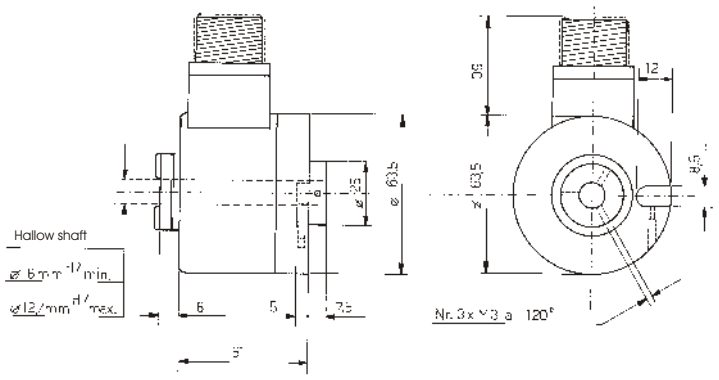
Standard pulses rate up to 3600 rpm (without count moltiplication logic)

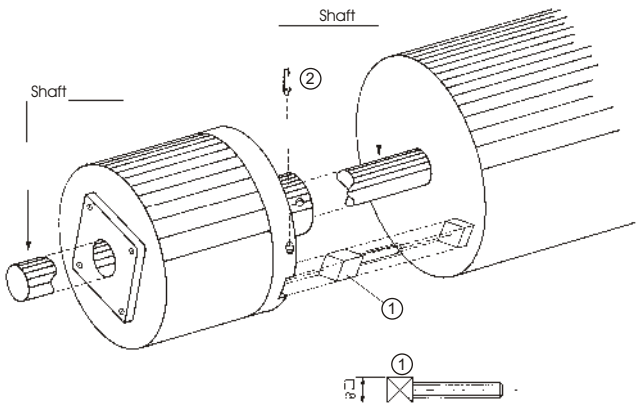
Output capacity over 100 kHz

TEKEL Instruments S.r.l. - Via Torino 13/1 - 10060 Roletto (TO) Italia
Tel +39 0121.343811 (10 linee r.a.) - Fax +39 0121.343888
http://www.tekel.it - e-mail: tekel@tekel.it

Any technical characteristic of the product can be modified by TEKEL Instruments S.r.l. without notice.

TKW615HT series





Mounting Example

Explicative details “1” and “2” not available

TECHNICAL DATA SHEET: TKW615HT series

TECHNICAL CHARACTERISTICS

Model	TKW 6151 HT unidirectional TKW 6152 HT unidirectional+ zero index TKW 6161 HT bi-directional TKW 6162 HT bi-directional+ zero index
Standard no. of increments per revolution	2 - 5 - 10 - 20 - 25 - 32 - 36 - 40 - 50 - 60 - 64 - 72 - 80 - 88 - 90 - 100 - 120 - 125 - 127 - 128 - 150 - 180 - 200 - 240 - 250 - 254 - 256 - 300 - 314 - 360 - 375 - 400 - 500 - 512 - 576 - 600 - 625 - 635 - 720 - 750 - 800 - 900 - 1000 - 1024 - 1200 - 1250 - 1270 - 1440 - 1500 - 1800 - 2000 - 2048 - 2500 - 2540 - 2700 - 3600

MECHANICAL CHARACTERISTICS

Assembly	See drawings
Dimension	See drawings
Mass	0,3 kg
Slewing speed	10.000 rpm for short period; 6.000 rpm for normal operation
Shaft diameter	
Hollow shaft	Minimum diameter 8 mm; maximum diameter 12,7 mm
Shaft seal	Not available
Starting torque at 25 °C	0,035 Nm
Starting inertia	60 g cm^2
Acceleration	150.000 rad/s^2 (glass disc); 200.000 rad/s^2 (flexible disc "DP")
Ball bearing working life	10^9 revolution min.
Low torque	Not available
Shaft loading	Axial 200 N; radial 200 N

MATERIALS

Mainframe	"Al" anticorodal thermally stabilised
Housing	ABS anti-shock reinforced with fibre glass
Shaft	Stainless steel
Light source	GaAsAl infrared light emitting diode MTBF 10^5 hours min.
Receivers	Two opto-receivers in push-pull for each channel

ENVIRONMENTAL CHARACTERISTICS

Operating temperature	-10 ÷ +70 °C
Storage temperature	-30 ÷ +80 °C
Humidity	Up to 98 % RH without condensation
Protection	**K4** IP 64 per DIN 40050
Vibrations	10 g (10 ÷ 2000 Hz)
Shock	20 g for 11 ms

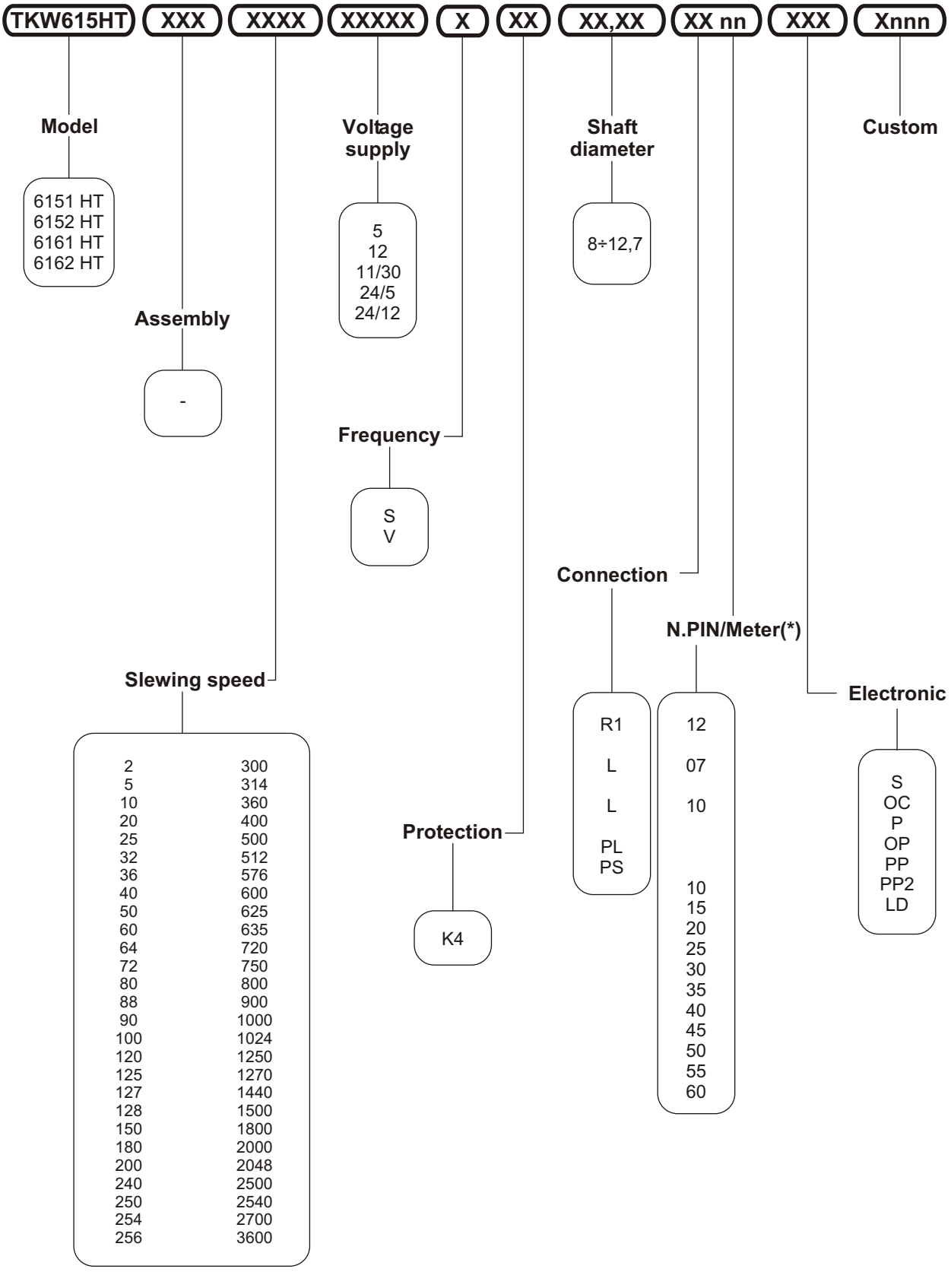
ELECTRICAL CHARACTERISTICS

Zero index	Gated on channel A, B, A+B, depending on the model
Voltage supply (c.c.)	5 V ±5 % 12 V ±5 % 11/30 V
Power consumption	150 mA max
Protection	Against polarity reverse (not 5 Vcc)
Frequency range (T = -10 °C ÷ +70 °C)	**S** 0 ÷ 50 kHz (standard) **V** 0 ÷ 100 kHz (fast option)
Output	**S** NPN standard (pull-up resistor included) **OC** NPN open collector **P** PNP (pull-down resistor included) **OP** PNP open collector **PP** push-pull (NPN + PNP) **PP2** push-pull with short circuit protection **LD** line driver RS422 a 5 V (Motorola 26LS31) only with supply of 5 or 24/5 **LD** line driver RS422 a 12 V (National MM88C30) only with supply of 12 or 24/12

CONNECTION CONFIGURATIONS

Output configurations S, OC, P, OP, PP, PP2	**PL** on radial cable gland with cable 1 ÷ 6 m long ; **PS** cap radial cable gland with cable 1 ÷ 6 m long; **L** on 7 pins radial MIL connector;
Output configurations LD	**PL** on radial cable gland with cable 1 ÷ 6 m long ; **PS** cap radial cable gland with cable 1 ÷ 6 m long; **L** on 10 pins radial MIL connector; **R1** on 12 pins radial MIL connector;

Order code: TKW615HT series



(*) 10 = 1,0 m ... 60 = 6,0 m