

TKW315 series

ERMEC

Distribución de componentes eléctricos y electrónicos

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Main features



Extremely rugged mechanical parts despite miniature dimensions



Housing sealed against oil, moisture and dust



Standard pulses rate up to 3600 rpm (without count multiplication logic)
14400 pulses per revolution after x 4 external evaluation



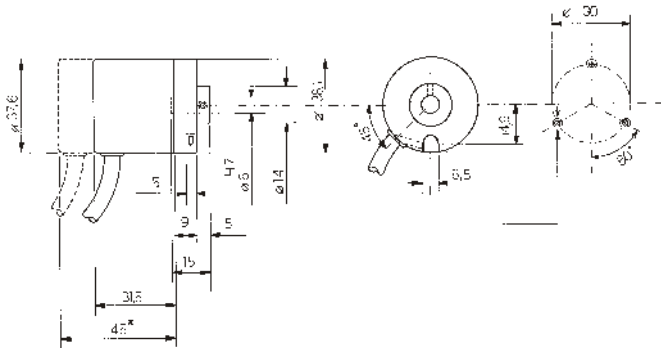
Output capacity over 150 kHz

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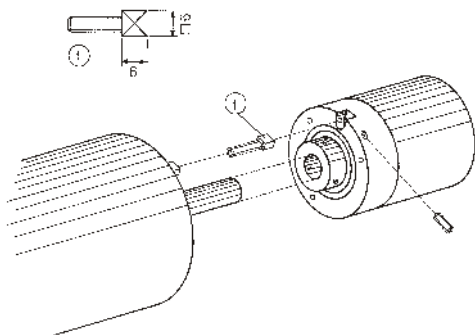


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* with output PP3, DS1, e DS2; cover length = 45 mm

Standard version



Explicative details "1" and "2" not available

Mounting example

TECHNICAL CHARACTERISTICS

Models	TKW 351 unidirectional TKW 352 unidirectional+ zero index TKW 362 bi-directional TKW 363 bi-directional+ zero index
Standard no. of increments per revolution	2 - 3 - 5 - 10 - 15 - 20 - 25 - 32 - 36 - 40 - 50 - 60 - 64 - 72 - 78 - 100 - 125 - 128 - 150 - 180 - 200 - 250 - 254 - 256 - 300 - 314 - 360 - 400 - 500 - 512 - 600 - 625 - 720 - 800 - 900 - 1000 - 1024 - 1250 - 2000 - 2500 - 3600

MECHANICAL CHARACTERISTICS

Assembly	See drawings
Dimension	See drawings
Mass	0,1 kg
Slewing speed	10.000 rpm for short period; 6.000 rpm for normal operation
Shaft diameter	--
Hollow shaft	Diameter 6 mm; depth 15 mm
Shaft seal	Not available
Starting torque at 25 °C	0,005 Nm without shaft seal; 0,006 Nm with shaft seal
Starting inertia	6 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 10 N; radial 20 N

MATERIALS

Mainframe	Al ⁷⁰⁷⁵ anticorrosion 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

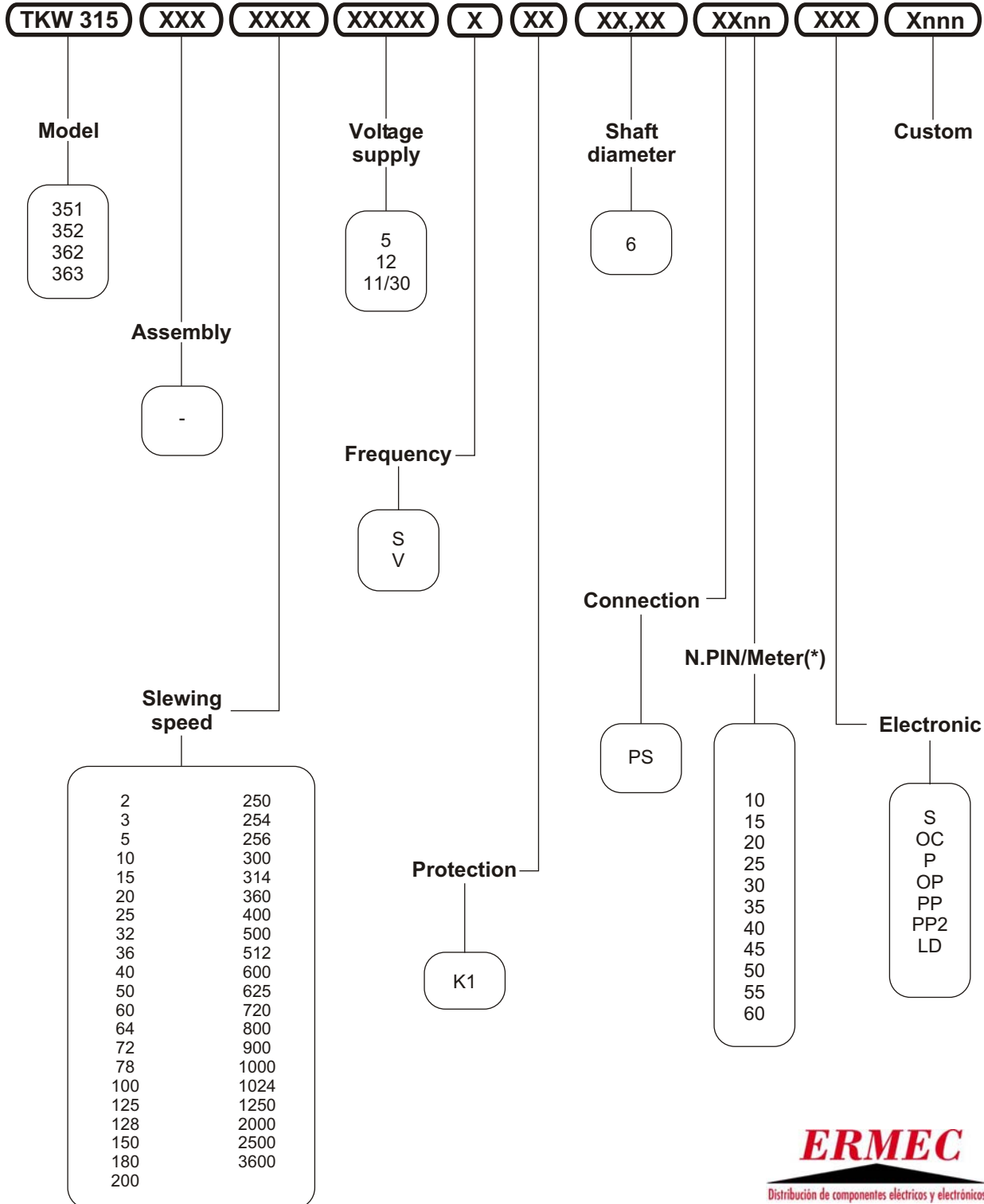
Operating temperature	-10 ÷ +70 °C
Storage temperature	-30 ÷ +80 °C
Humidity	Up to 98 % RH without condensation
Protection	K1 IP 55 per DIN 40050
Vibrations	10 g (10 ÷ 2000 Hz)
Shock	20 g for 11 ms

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 V

CONNECTION CONFIGURATIONS

Output configurations S, OC, P, OP, PP, PP2	PS radial cable gland only with cable 1 + 6 m long
Output configurations LD	PS radial cable gland only with cable 1 + 6 m long



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