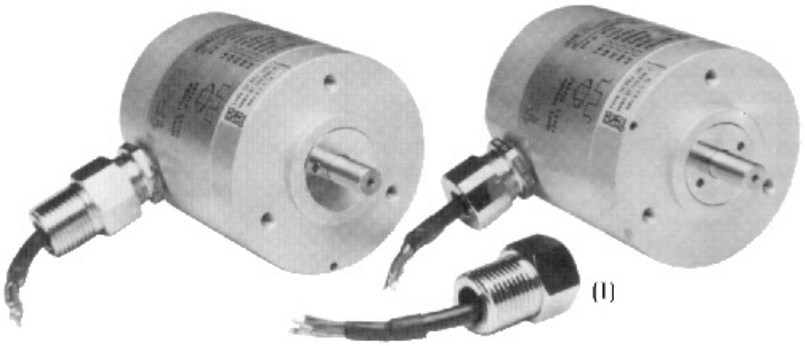
TKEEx100 series



Main features

Execution according to **Cenelec 50018 norms.**

Certification code **EEx-d IIC T6** means:
EEx: the manufacturing is certified following CENELEC rules;
d: explosion proof body
II: device certified for operation in potentially explosive areas except the mines in which grisou gas is present;
C: engineered with an experimental interstice with the maximum security (MESG);
T6: maximum surface body temperature: +85°C as per EN 50014.

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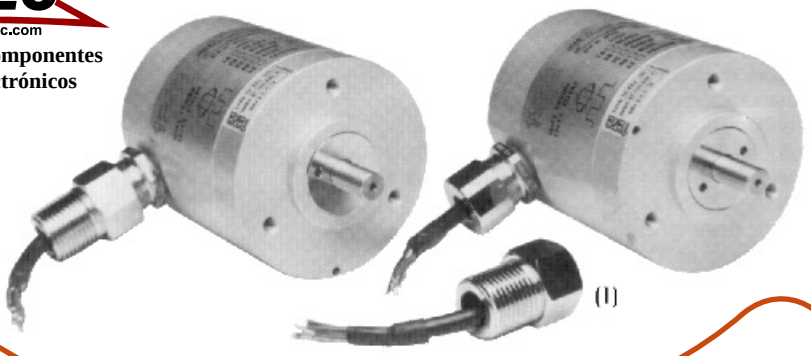

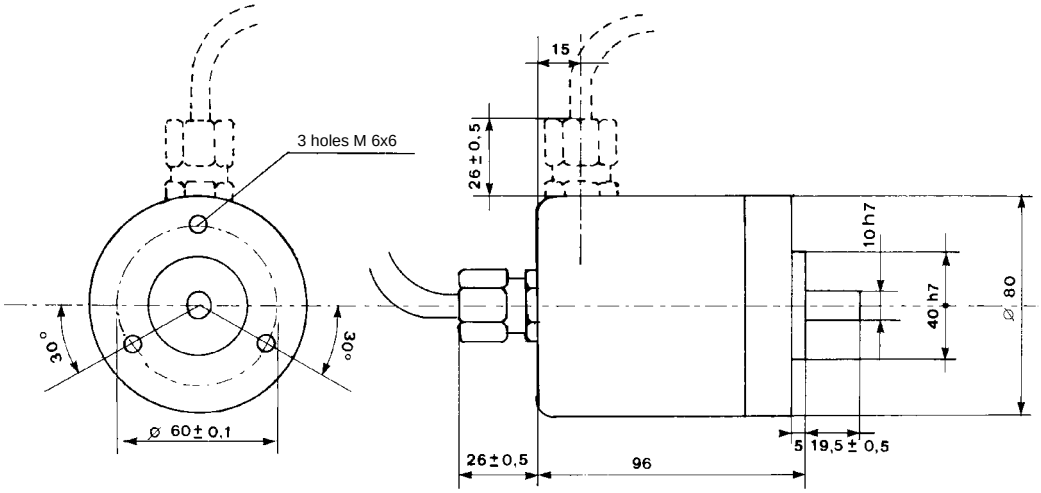

Output exclusively on axial or radial cable with EEX cable gland.
No mechanical changement or modification are admitted.

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TECHNICAL DATA SHEET: TKEEx100 series

TECHNICAL CHARACTERISTICS

Models	TKEEx110 unidirectional TKEEx111 unidirectional+ zero index TKEEx120 bi-directional TKEEx121 bi-directional+ zero index
Standard no. of increments for revolutions	2 - 5 - 10 - 15 - 20 - 25 - 30 - 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 - 4096 - 5000 - 9000

MECHANICAL CHARACTERISTICS

Assembly	**S** Servo
Dimension	See drawings
Weight	0,7 kg
Slewing speed	12.000 rpm for short period; 6.000 rpm for normal operation
Shaft diameter	10 mm
Hollow shaft	Not available
Shaft seal	Not available
Starting torque at 25°C	0,025 Nm without shaft seal; 0,040 Nm with shaft seal
Starting inertia	40 g cm^2
Acceleration	150.000 rad/s^2(glass disc); 200000 rad/s^2(flexible disc - "DP")
Ball bearing working life	10^9 revolutions min.
Low torque	Not available
Shaft loading	axial 200 N; radial 200 N

MATERIALS

Mainframe	"Al" thermally stabilised and anodised
Housing	Cast "Al" painted with oven treating at 180°C
Shaft	Stainless steel
Light source	GaAsAl infrared light emitting diode MTFB 100,000 hrs min.
Receivers	Two opto-receivers in push-pull for each channel

ENVIRONMENTAL CHARACTERISTICS

Operating temperature	-10 ÷ +70 °C
Storage temperature	-35 ÷ +85 °C
Humidity	Up to 98 % RH without condensation
Protection	**K4** IP 64 per DIN 40050
Vibrations	10 g (10 ÷ 2000 Hz)
Shock	20 g per 11 ms

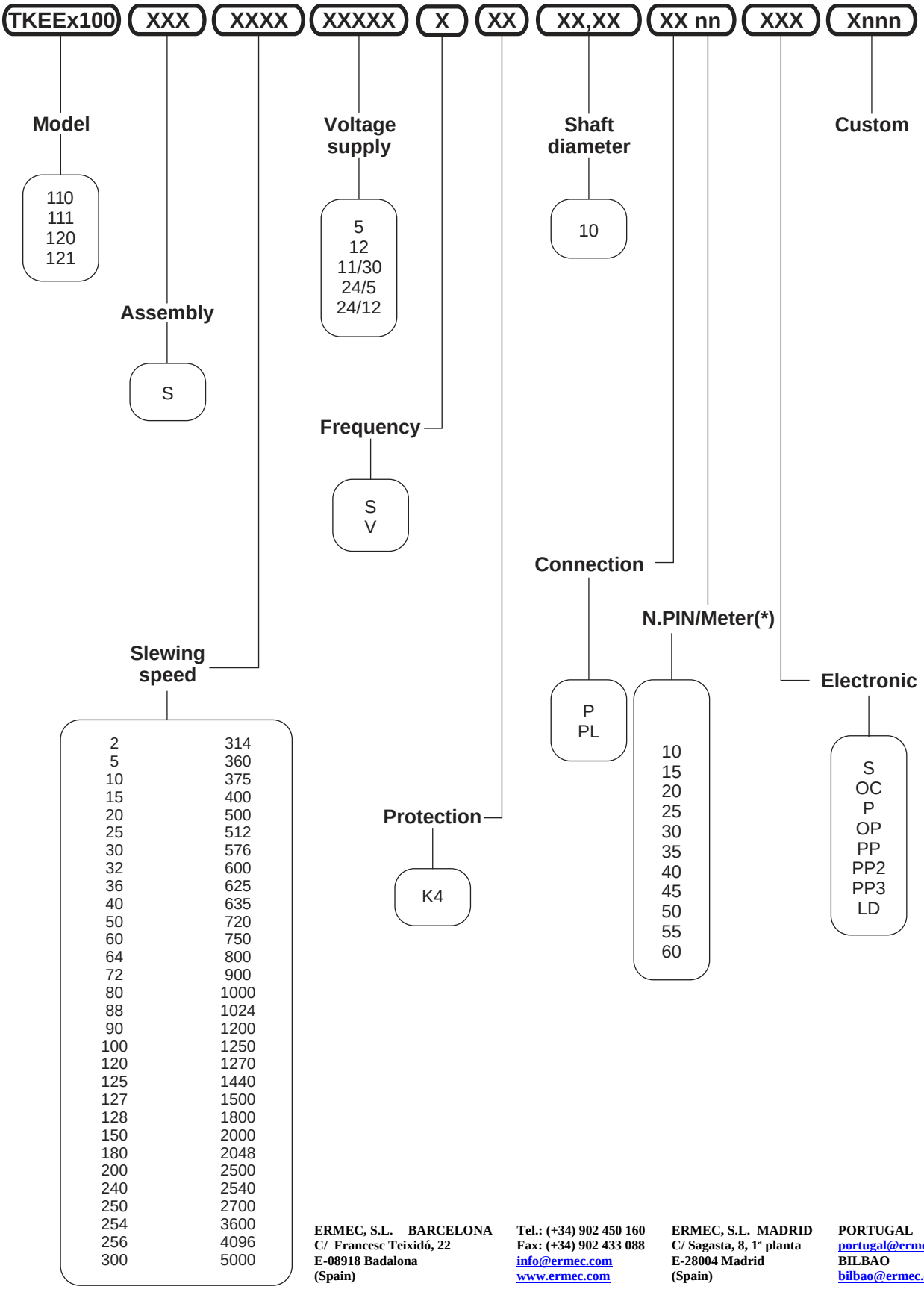
ELECTRICAL CHARACTERISTICS

Zero index	Gated on channel A,B,A+B (depending on the model)
Voltage supply	5V ±5% 12V ±5% 11/30V ±5%
Power consumption	150 mA max
Protection	Against polarity reverse (not 5V)
Frequency range (T=-10°C ÷ + 70°C)	**S** 0 ÷ 100 KHz **V** 0 ÷ 300 KHz
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 **PP3** push-pull completed **LD** line driver RS422 - 5V (26LS31 only with supply to 5 or 24/5) **LD** line driver RS422 - 12V (MM88C30) only with supply to 12 or 24/12

CONNECTION CONFIGURATIONS

Output configuratios S, P, OP, OC, PP, PP2	**P** on axial cable gland EEx with cable 1 ÷ 6 m long; **PL** radial cable gland with cable 1 ÷ 6 m long;
Output configurations LD and PP3	**P** on axial cable gland with cable 1 ÷ 6 m long; **PL** radial cable gland with cable 1 ÷ 6 m long;
1/2" joint	to be specified on eventual order

Order code: TKEEx100 series



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