

T144 series



Main features



Extremely rugged mechanical part despite miniature dimensions



Housing sealed against oil, moisture and dust



Standard pulses rate up to 1024 rpm (without count multiplication logic)



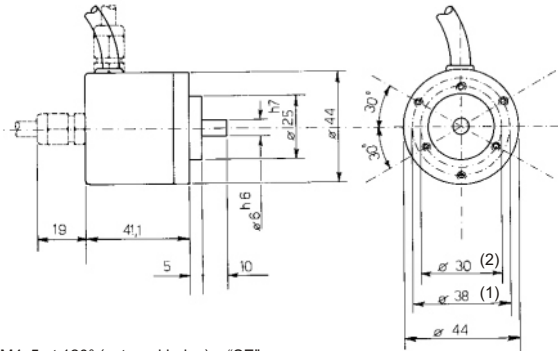
Output capacity over 50 kHz

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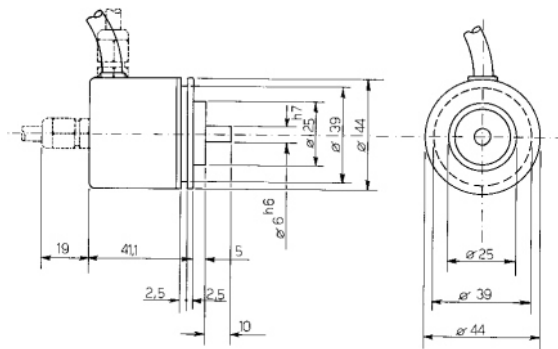


TI44 series



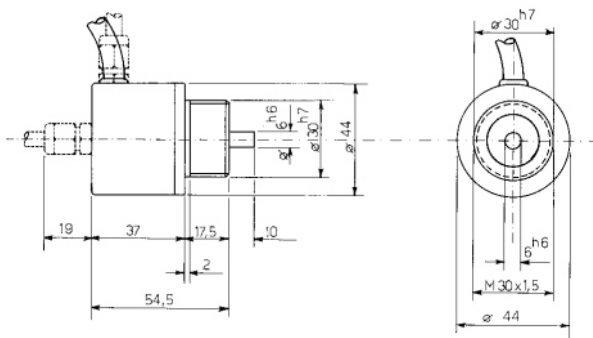
(1) 3 holes M4x5 at 120° (external holes) = "SE"
(2) 3 holes M3x5 at 120° (internal holes) = "SI"

SE or SI = Servo flange



3 Clips (BSF 38) on diameter 56 ± 0.2 mm - Fix with screws M2x10

SG = Servo flange brackets



P = Proxy Flange



TECHNICAL CHARACTERISTICS

Model	TI 44 bi-directional+ zero 441 Zero A 442 Zero B 443 Zero A + B
Standard no. of increments per revolution	100 - 360 - 500 - 1024

MECHANICAL CHARACTERISTICS

Assembly	SE or SI Servo flange SG Servo flange brackets P Proxy flange
Dimension	See drawings
Slewing speed	10.000 rpm for short period; 6.000 rpm for normal operation; 2.000 rpm with shaft seal
Ball bearing working life	10 ⁹ revolution min.
Shaft loading	Axial 40 N; radial 40 N

MATERIALS

Mainframe	"Al" anticorrosive 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

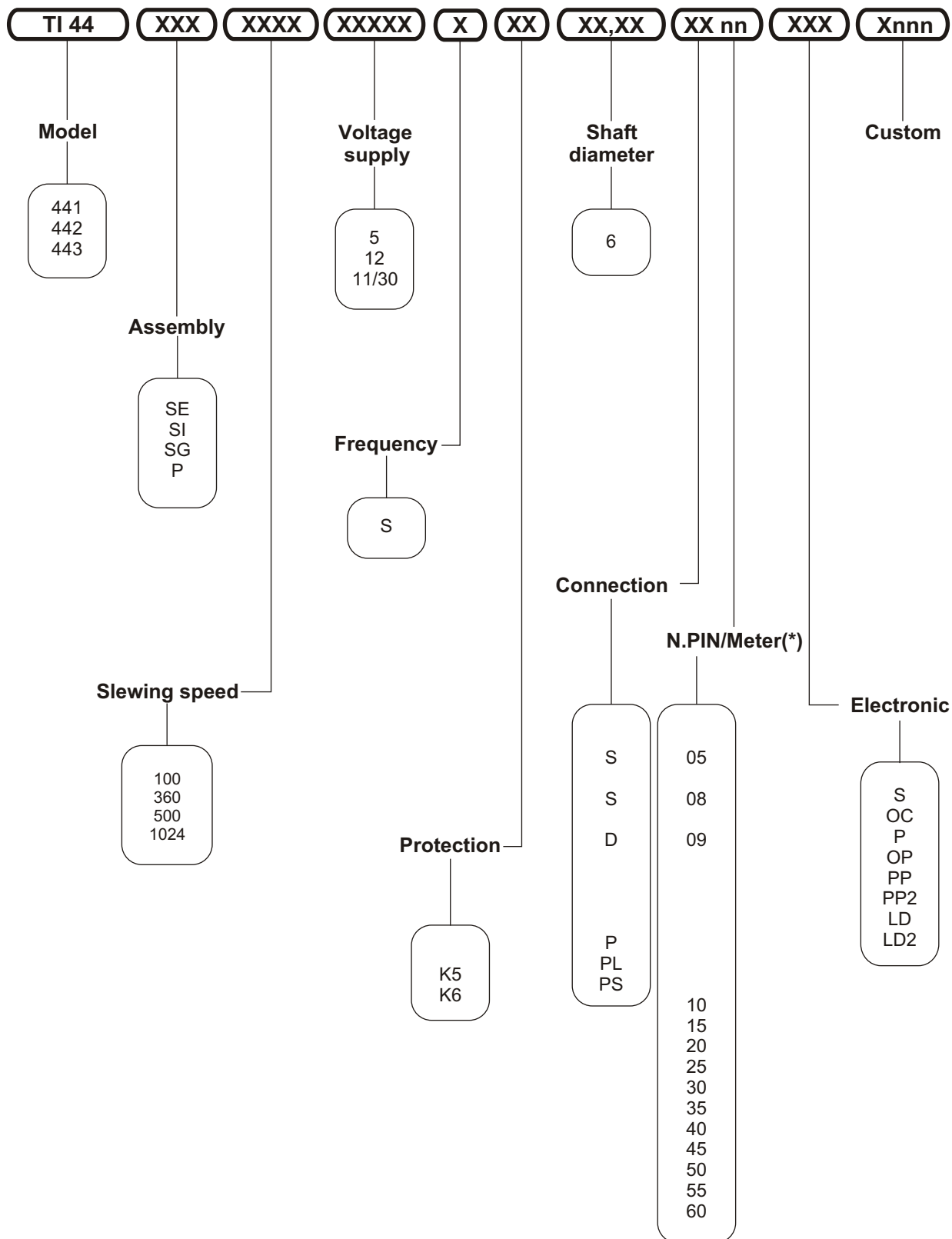
Operating temperature	-10 ÷ +65 °C
Storage temperature	-30 ÷ +80 °C
Protection	K3 IP 63, K5 IP 65, K6 IP 66

ELECTRICAL CHARACTERISTICS

Code	Incremental
Zero index	Gated on channel A, B, A+B (depending on the model)
Voltage supply (c.c.)	5 V ±5 % 11/30 V
Power consumption	80 mA max
Output protection	Push-pull with short circuit protection, no limit duration (only PP2 e LD2)
Frequency range (T = -10 °C ÷ +70 °C)	100 kHz max
Output	S NPN standard (pull-up resistor included) OC NPN open collector P PNP i pull-down resistor included OP PNP open collector PP push-pull (NPN + PNP) PP2 push-pull with short circuit protection LD line driver RS422 at 5 V (26LS31) LD2 line driver RS422 at 11/30 V

CONNECTION CONFIGURATIONS

Connection configurations S, OC, P, OP, PP, PP2	PS on screened cable 1 + 6 m long radial cable gland; P screened cable 1 + 6 m long with axial cable gland PL screen cable 1 + 6 m long with radial cable gland; S on 5 pins male connector for panel type: "LUMBERG" SFV 50/6: axial; D9 on DB9 pins male axial panel connector.
LD	PS on screened cable 1 + 6 m long radial cable gland; P screened cable 1 + 6 m long with axial cable gland PL screen cable 1 + 6 m long with radial cable gland; S on 8 pins male connector for panel type: "LUMBERG" SFV 50/6: axial; D9 on DB9 pins male axial panel connector.



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