

TK25

solid shaft

Ø 44



Italsensor Quality System certified according to the UNI EN ISO 9001



Features:

TK25 - an economic incremental optical encoder suitable for different industrial applications, thanks to its versatility, compact design and high protection degree.

- compact and economic encoder for various applications;
- wide range of flanges;
- resolution up to 2.000 ppr; others on demand;
- protection degree up to IP66;
- cable and connector outputs.



MECHANICAL SPECIFICATIONS/ CARATTERISTICHE MECCANICHE

Dimensions/ Dimensioni

Shaft/ Albero

Shaft loading/ Carico sull'albero

Shaft Rotation Speed/ Numero giri

Starting torque at 25°C/ Coppia di partenza a 25 °C

Moment of inertia/ Momento di inerzia

Bearing life/ Vita dei cuscinetti

Weight/ Peso

see drawings/ vedi disegni
stainless steel/ acciaio inossidabile
axial/ assiale 40 N; radial/ radiale 40 N
10.000 RPM (short cycle time/ brevi periodi) 6.000 RPM (continuous/ continui)
2.000 turn/min with protection shaft/ giri/min con asse stagno
0,005 Nm; 0,006 Nm with proof shaft /con asse stagno
6 g cm²
5 x 10⁹ rev. min./ giri (minimo)
~ 0,23 kg

ELECTRICAL SPECIFICATIONS/ CARATTERISTICHE ELETTRICHE

Resolution/ Risoluzione

Power supply/ Alimentazione

Output frequency/ Frequenza in uscita

Synchronous index output/ Sincronismo di zero

Supply current without load/ Assorbimento in corrente

Protection/ Protezione

2.000 ppr; others on demand/ 2.000 ppr; altri a richiesta
5 V; 24/5 V; 11÷30 V
up to 50 kHz/ fino a 50 kHz
on A default, B- A+B optional/ su canale A predefinito - B- A+B a richiesta
100 mA max
short circuit protection, no limit duration (only output LD2 and PP2);
against inversion of polarity (except 5V)
contro il cortocircuito (solo elettronica LD2 e PP2);
contro inversione di polarità (escluso 5V)

MATERIALS/ MATERIALI UTILIZZATI

Flange/ Flangia

Housing/ Corpo

Shaft/ Albero

aluminum S11/ in alluminio S11
polyamid 6 (PA6)/ poliammide 6 (PA6);
stainless steel/ acciaio inossidabile

ENVIRONMENTAL SPECIFICATIONS/ CARATTERISTICHE AMBIENTALI

Operating temperature range/ Temperatura di lavoro

Storage temperature range/ Temperatura di stoccaggio

Protection degree/ Grado di protezione (EN 60529)

Relative humidity/ Umidità relativa

Vibrations/ Vibrazioni (EN 60068-2-6)

Shock resistance/ Resistenza a shock (EN 60068-2-27)

-10°C ÷ +70 °C
-30°C ÷ +80 °C
up to IP66/ fino a IP66
98% RH without condensing/ senza condensazione
10 g (from 10 up to 2.000 Hz) / (da 10 a 2.000 Hz)
20 g (for 11 ms) /(per 11 ms)

ORDER CODE

TKXXX. XX . XXXX . XXXXX . X . XX . 6 . XXnn . XXX-XXXX . Xnnn

a

b

c

d

e

f

g

h

i

j

a MODEL/ MODELLO

TK251	unidirectional / monodirezionale
TK252	unidirectional + index/ monodirezionale + zero
TK262	bidirectional / bidirezionale
TK263	bidirectional + index/ bidirezionale + zero

b ASSEMBLY/ MONTAGGIO

MONTAGGIO - ASSEMBLY

P	Standard flange Ø 44/ flangia standard Ø 44
PX	Proxy flange Ø 44/ flangia Proxy Ø 44
SE	Servo flange Ø 44
SI	Servo flange Ø 44
SG	Servo-clip / servo-graffe

c PULSE RATE/ IMPULSI GIRO

2 - 3 - 5 - 10 - 15 - 20 - 25 - 32 - 36 - 40 - 50 - 60 - 64 - 72 - 78 - 100 - 108 - 125 - 128 - 132 - 150 - 156 - 168 - 176 - 180 - 188 - 192 - 200 - 216 - 239 - 250 - 254 - 256 - 300 - 314 - 360 - 400 - 500 - 512 - 600 - 625 - 720 - 800 - 900 - 1000 - 1024 - 1250 - 1440 - 2000

d POWER SUPPLY/ ALIMENTAZIONE

5	+5 V ±5 %
11/30	+11÷30 V
24/5	+11÷30 V supply + 5 V output

e OUTPUT FREQUENCY/ FREQUENZA IN USCITA

S	from 0 a - up to 50 kHz / da 0 a 50 kHz
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f PROTECTION DEGREE/ GRADO DI PROTEZIONE

K1	IP 55 (EN60529) only for output / solo per uscita "PS", "DB9", "S05", "S08"
K4	IP 64 (EN60529)
K5	IP 65 (EN60529) only with "P" assembly / solo con montaggio "P"
K6	IP 66 (EN60529) only with "P" assembly / solo con montaggio "P"

g SHAFT/ ALBERO

6	Ø 6 mm
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h ELECTRICAL CONNECTIONS/ CONNESSIONI ELETTRICHE

OUTPUT S ; P ; OC ; OP ; PP2

Pnn	on axial cable gland with cable 1 ÷ 6 m long /pressacavo assiale con cavo da 1 a 6 m;
PLnn	radial cable gland with cable 1 ÷ 6 m long /pressacavo radiale con cavo da 1 a 6 m;
PSnn	on radial cable gland with cable 1 ÷ 6 m long /gommino passacavo radiale con cavo da 1 a 6 m;
S05	on 5 pins axial MIL connector /conn. circolare militare assiale a 5 poli
D09	on 9 pins axial DB9 connector /conn. submin assiale a 9 poli

OUTPUT LD ; LD2

Pnn	on axial cable gland with cable 1 ÷ 6 m long /pressacavo assiale con cavo da 1 a 6 m;
PLnn	radial cable gland with cable 1 ÷ 6 m long /pressacavo radiale con cavo da 1 a 6 m;
PSnn	on radial cable gland with cable 1 ÷ 6 m long /gommino passacavo radiale con cavo da 1 a 6 m;
S08	on 8 pins axial MIL connector /conn. circolare militare assiale a 8 poli
D09	on 9 pins axial DB9 connector /conn. submin assiale a 9 poli

nn	cable length/ lunghezza cavo (es. PL10 = 1 m. ...PL60 = 6 m)
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i OUTPUT CIRCUITS/ CIRCUITI DI USCITA

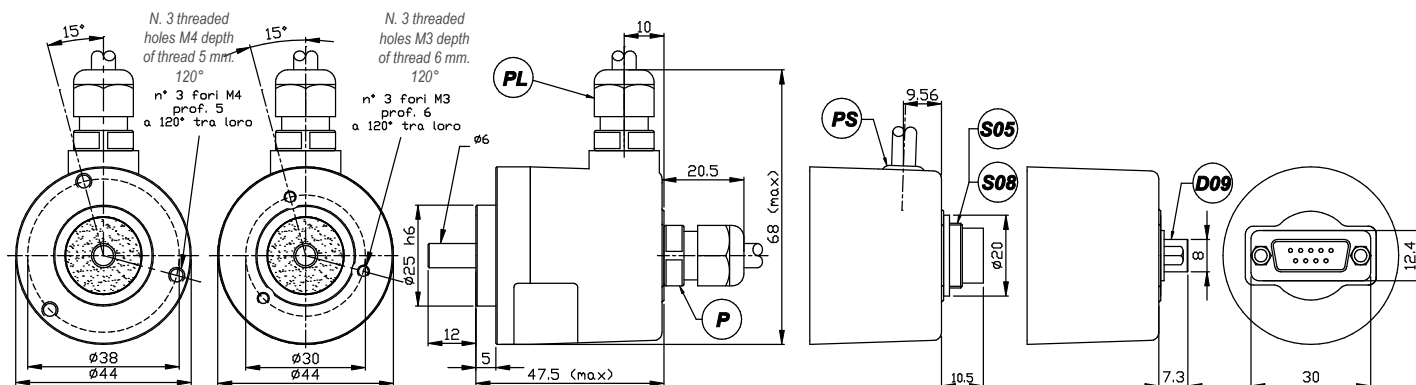
S	NPN standard (resistor included- resistenza di pull-up inclusa)
OC	NPN open collector
P	PNP (resistor included - resistenza di pull-down inclusa)
OP	PNP open collector
PP2-5	Push-Pull 5 V output 5 V
PP2-1130	Push-Pull 11/30 Vcc output (only with voltage supply - solo con alimentazione 11/30 V)
LD	Line driver RS422 (26LS31) only - solo 5 V- or 24/5 V
LD2-5	Line driver 5 Vcc output 5 V
LD2-1130	Line driver 11/30 Vcc output (only with voltage supply - solo con alimentazione 11/30V)

j CUSTOM

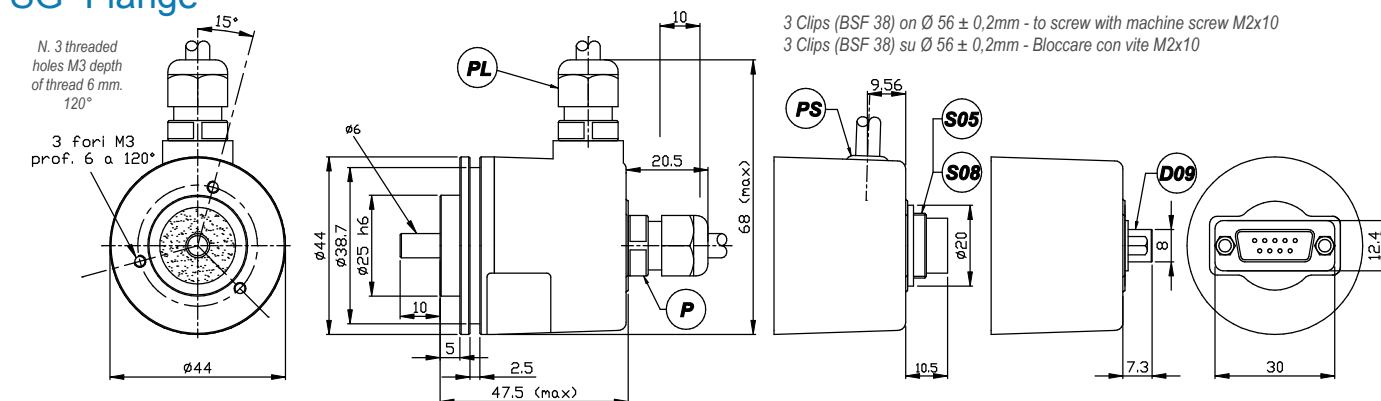
CUSTOM	custom execution/ esecuzione custom
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SE Flange

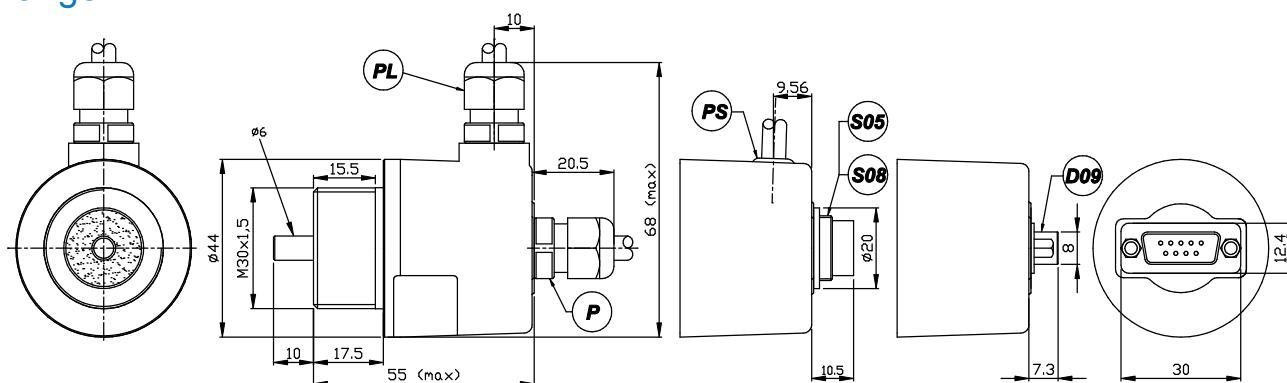
SI Flange



SG Flange



PX Flange



P Flange

