

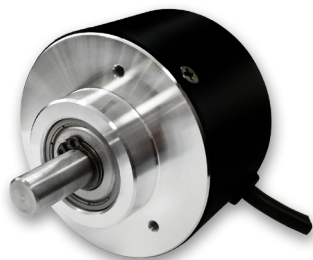
TKE45

solid shaft

Ø 63,5



Italsensor Quality System certified according to the UNI EN ISO 9001



Features:

TKE45 - robust absolute singleturn encoder suitable for various industrial applications.

- Robust encoder for various applications;
- high reliability and long service life;
- resolution: 12 bit standard/ 13 bit on request;
- protection degree up to IP64;
- STD codes: GRAY/ BINARY/ BCD;
- cable and connector outputs;



MECHANICAL SPECIFICATIONS/ CARATTERISTICHE MECCANICHE

Dimensions/ *Dimensioni*

Shaft loading/ *Carico sull'albero*

Shaft Rotation Speed/ *Numero giri*

Bearing life/ *Vita dei cuscinetti*

Weight/ *Peso*

see drawings/ vedi disegni
axial/ assiale 200 N; radial/ radiale 200 N
10.000 RPM (short cycle time/ brevi periodi) 6.000 RPM (continuous/ continui)
5 x 10⁹ rev. min./ giri (minimo)
~ 0,5 kg

ELECTRICAL SPECIFICATIONS/ CARATTERISTICHE ELETTRICHE

Power supply/ *Alimentazione*

STD codes

Output frequency/ *Frequenza in uscita*

Protection/ *Protezione*

5 V; 11÷30 V
GRAY/ BINARY/ BCD
from 0 to 20 kHz (L.S.B. without error/ senza errore)
against inversion of polarity (except 5V)/ contro inversione di polarità (escluso 5V)

MATERIALS/ MATERIALI UTILIZZATI

Flange/ *Flangia*

Housing/ *Corpo*

Shaft/ *Albero*

aluminum non corroding/ in alluminio anticorrosione
Aluminum painted with inhibiting treatment 180 °C/ Alluminio verniciato con trattamento termico a 180 °C
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 IP64
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)

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ORDER CODE

TKE45. XX . XXXX . XXXX . XXXXX . XX . 10 . XXnn . XX . X . Xnnn

a

b

c

d

e

f

g

h

i

j

k

a MODEL/ MODELLO

TKE45

b ASSEMBLY/ MONTAGGIO

F Square flange / flangia quadra
H Servo flange/ flangia servo
SG Servo-clip / servo-graffe

c STEPS/ PASSI PER GIRO

| | | |
|------|----------------------------|----------------------------|
| 16 | 16 steps/turn G;B | 16 passi/giro G;B |
| 32 | 32 steps/turn G;B | 32 passi/giro G;B |
| 64 | 64 steps/turn G;B | 64 passi/giro G;B |
| 128 | 128 steps/turn G;B | 128 passi/giro G;B |
| 256 | 256 steps/turn G;B | 256 passi/giro G;B |
| 512 | 512 steps/turn G;B | 512 passi/giro G;B |
| 1024 | 1024 steps/turn G;B | 1024 passi/giro G;B |
| 250 | 250 steps/turn E;D | 250 passi/giro E;D |
| 360 | 360 steps/turn E;D | 360 passi/giro E;D |
| 500 | 500 steps/turn E;D | 500 passi/giro E;D |
| 720 | 720 steps/turn E;D | 720 passi/giro E;D |
| 1000 | 1000 steps/turn E;D | 1000 passi/giro E;D |
| 90 | 90 steps/turn G/0;B/0 | 90 passi/giro G/0;B/0 |
| 180 | 180 steps/turn G/0;B/0 | 180 passi/giro G/0;B/0 |
| 250 | 250 steps/turn G/0;B/0 | 250 passi/giro G/0;B/0 |
| 360 | 360 steps/turn G/0;B/0 | 360 passi/giro G/0;B/0 |
| 500 | 500 steps/turn G/0;B/0 | 500 passi/giro G/0;B/0 |
| 720 | 720 steps/turn G/0;B/0 | 720 passi/giro G/0;B/0 |
| 1000 | 1000 steps/turn G/0;B/0 | 1000 passi/giro G/0;B/0 |
| 90 | 90 steps/turn G/19;B/19 | 90 passi/giro G/19;B/19 |
| 180 | 180 steps/turn G/38;B/38 | 180 passi/giro G/38;B/38 |
| 360 | 360 steps/turn G/76;B/76 | 360 passi/giro G/76;B/76 |
| 720 | 720 steps/turn G/152;B/152 | 720 passi/giro G/152;B/152 |
| 90 | 90 steps/turn D | 90 passi/giro D |
| 180 | 180 steps/turn D | 180 passi/giro D |

others on demand/ altri a richiesta

d CODE/ CODICE

| | |
|-------|--|
| B | Natural Binary code/ codice Binario naturale |
| B/0 | Binary code centrally cutted/ codice Binario troncato centr. |
| B/19 | Binary code - exc (90)/ codice Binario - eccesso (90) |
| B/38 | Binary code - exc (180)/ codice Binario - eccesso (180) |
| B/76 | Binary code - exc (360)/ codice Binario - eccesso (360) |
| B/152 | Binary code - exc (720)/ codice Binario - eccesso (720) |
| D | BCD code (100+720) - codice BCD (100+720) |
| E | Excess 3 Gray code (100+720) - codice Gray exc. 3 (100+720) |
| G | Natural Gray code/ codice Gray naturale |
| G/0 | Gray code centrally cutted/ codice Gray troncato centr. |
| G/19 | Gray code - exc (90)/ codice Gray - eccesso (90) |
| G/38 | Gray code - exc (180)/ codice Gray - eccesso (180) |
| G/76 | Gray code - exc (360)/ codice Gray - eccesso (360) |
| G/152 | Gray code - exc (720)/ codice Gray - eccesso (720) |

e POWER SUPPLY/ ALIMENTAZIONE

5 +5 V ±5 %
11/30 +11±30 V

f PROTECTION DEGREE/ GRADO DI PROTEZIONE

K1 IP 55 (EN60529) with D25 only / solo con D25
K4 IP 64 (EN60529)

g SHAFT/ ALBERO

10 Ø 10 mm

h ELECTRICAL CONNECTIONS/ CONNESSIONI ELETTRICHE

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;
S07 on 7 pins axial MIL connector /conn. circolare militare assiale a 7 poli
S10 on 10 pins axial MIL connector /conn. circolare militare assiale a 10 poli
S26 on 26 pins axial MIL connector /conn. circolare militare assiale a 26 poli
D25 on 25 pins axial DB25 connector /conn. circolare submin assiale a 25 poli
SL07 on 7 pins radial MIL connector /conn. circolare militare radiale a 7 poli
SL10 on 10 pins radial MIL connector /conn. circolare militare radiale a 10 poli
SL26 on 26 pins radial MIL connector /conn. circolare militare radiale a 26 poli
nn cable length/ lunghezza cavo (es. PL10 = 1 m. ...PL60 = 6 m)

i OUTPUT CIRCUITS/ CIRCUITI DI USCITA

20 PNP 100 mA open collector (positive logic / logica positiva);
21 PNP 100 mA pull-down (positive logic/ logica positiva) (only with/ solo con 11/30V);
22 NPN 100 mA open collector (negative logic/ logica negativa);
23 NPN 100 mA pull-up (negative logic/ logica negativa) (only with/ solo con 11/30V);
S13D SSI 13 bit right alignment/ allineamento a destra (only with / solo con 11/30V)

j OPTIONS/ OPZIONI

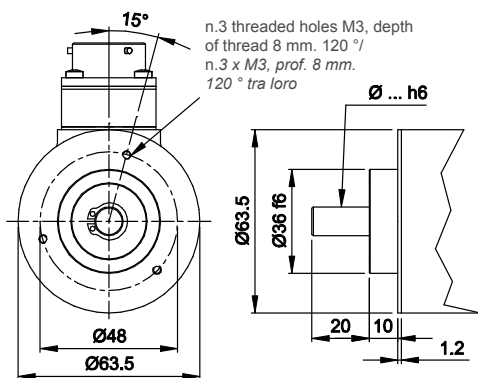
U Up/Down NPN
Z Zero signal (except output S13D)/ Segnale di zero (esclusa elettronica S13D)
V Displayed Index signal (except output S13D)/ Segnale di index visualizzato (except output S13D)

k CUSTOM

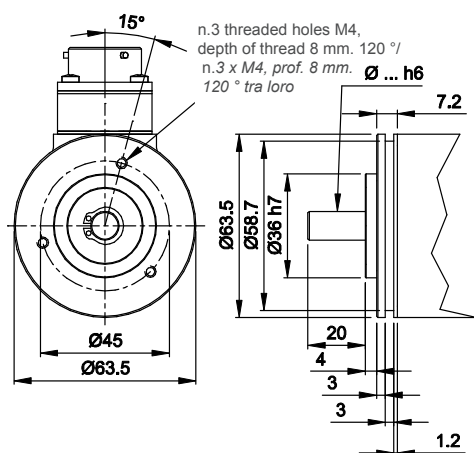
CUSTOM custom execution/ esecuzione custom

Mechanical assembly/ montaggio meccanico

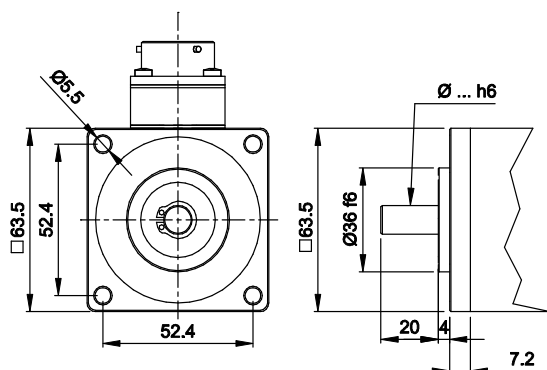
H Servo flange



SG Servo-clip



F Square Flange



Electrical connections/ connessioni elettriche

