

TSW80P

hollow through shaft

Ø 80



Italsensor Quality System certified according to the UNI EN ISO 9001



Features:

TSW80P incremental hollow through shaft encoder suitable for different industrial applications.

This model is particularly suitable for electric motors as the body and the plastic housing ensures a high immunity to interference on the output signals.

Shaft diameters changeable by user through reducing bushes.

- fixing system through antirotation pin;
- resolution up to 2048 ppr, others on demand;
- shaft diameters changeable through reducing bushes;
- protection degree IP54;
- cable output.



MECHANICAL SPECIFICATIONS/ CARATTERISTICHE MECCANICHE

Dimensions/ Dimensioni

Hollow through shaft with collar clamp/ *Albero cavo passante chiusura a collare*

Shaft loading/ *Carico sull'albero*

Shaft Rotation Speed/ *Numero giri*

Bearing life/ *Vita dei cuscinetti*

Weight/ *Peso*

see drawings/ vedi disegni
stainless steel/ acciaio inossidabile

axial/ assiale 5 N; radial/ radiale 5 N
3.000 RPM (continuous/ continui)
5 x 10⁹ rev. min/ giri (minimo)
~ 0,150 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*

2048 ppr; others on demand/ 2048 ppr; altri a richiesta

5 V; 5÷28 V; 8÷24 V

up to 200 kHz/ fino a 200 kHz

A+B standard/ A+B predefinito

100 mA max

output channel protected against s.c., no protection for supply inversion Vcc= 5V/
uscite protette contro il c.c., non protetto contro inversione polarità per Vcc= 5 V

MATERIALS/ MATERIALI UTILIZZATI

Flange/ *Flangia*

Housing/ *Corpo*

Shaft/ *Albero*

polyamid 6 with glass fibre addition/ poliammide 6 con caricato fibra vetro

polyamid 6 with glass fibre addition/ poliammide 6 con caricato fibra vetro

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 ÷ +100 °C (L, Vcc= 8 ÷ 24 V), 105 °C (H, only with /solo con Vcc = 5V)

-30°C ÷ +110 °C

IP54

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

TSW80P . = . X . XXXX . XXXX . S . K1 . XX . PLnn . XXX-XXX . Xnnn

a b c d e f g h i j k

a MODEL/ *MODELLO*

TSW80P bidirectional + zero (A&B) / bidirezionale + zero (A+B)

b ASSEMBLY/ *MONTAGGIO*

= standard

c OPERATING TEMP/ *TEMPERATURA OPERATIVA*

L max 85°C
H max. 105°C only with /solo con Vcc = 5V

d PULSE RATE/ *IMPULSI GIRO*

1024 - 2048

other values on demand/ altri valori a richiesta

e POWER SUPPLY/ *ALIMENTAZIONE*

5 +5 V ±5 %
8/24 +8 ÷ 24 V
5/28 +5 ÷ 28 V

Optional
8/30 +8 ÷ 30 V
11/30 +11÷30 V

f OUTPUT FREQUENCY/ *FREQUENZA IN USCITA*

S from 0 a - up to 200 kHz / da 0 a 200 kHz

g PROTECTION DEGREE/ *GRADO DI PROTEZIONE*

K1 IP 54 (EN60529)

h SHAFT/ *ALBERO*

8 ∅ 8 mm (H7) (bushing reduction/ boccola di riduzione)
10 ∅ 10 mm (H7) (bushing reduction/ boccola di riduzione)
12 ∅ 12 mm (H7) (bushing reduction/ boccola di riduzione)
14 ∅ 14 mm (H7) (bushing reduction/ boccola di riduzione)
15 ∅ 15 mm (H7) Clamp with collar/ Chiusura tramite collare

i ELECTRICAL CONNECTIONS/ *CONNESSIONI ELETTRICHE*

OUTPUT PP2 ;

PLnn radial cable gland with cable 1 ÷ 6 m long /pressacavo radiale con cavo da 1 a 6 m;

OUTPUT LD; LD2 ;

PLnn radial cable gland with cable 1 ÷ 6 m long /pressacavo radiale con cavo da 1 a 6 m;

nn cable length/ lunghezza cavo (es. PL10 = 1 m. ...PL60 = 6 m)

j OUTPUT CIRCUITS/ *CIRCUITI DI USCITA*

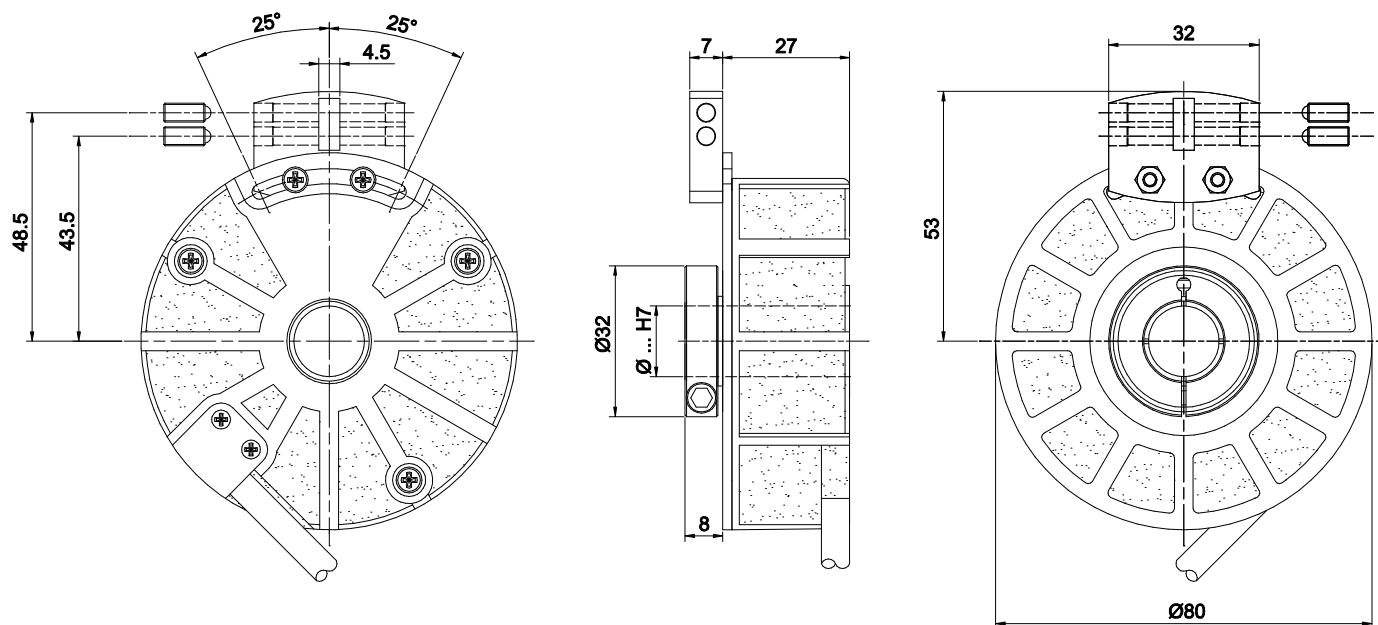
PP2-5 protected Push-Pull 5 V output against short circuit/ Push-Pull protetto 5 V output
PP2-824 protected Push-Pull 8/24 V output against short circuit/ Push-Pull protetto 8/24 V output
PP2-528 protected Push-Pull 5/28 V output against short circuit/ Push-Pull protetto 5/28 V output
LD Line driver RS422 (26LS31) non protected against output short circuit/ Line driver non protetto
LD2-5 protected Line driver 5 V output against short circuit/ Line driver protetto 5 V output
LD2-824 protected Line driver 8/24 V output against short circuit/ Line driver protetto 8/24 V output
LD2-528 protected Line driver 5/28 V output against short circuit/ Line driver protetto 5/28 V output

High current output driver is also available upon request.
Su richiesta è possibile fornire anche driver con altra corrente di uscita.

k CUSTOM

CUSTOM custom execution/ esecuzione custom

MECHANICAL DRAWING/ DISEGNO MECCANICO



Antirotational tool/ perno antirotazione

