

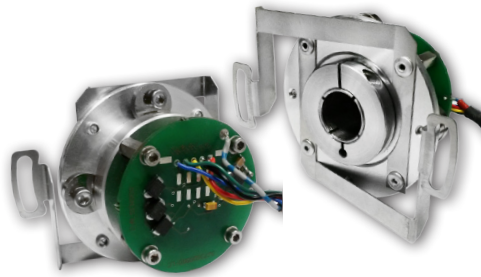
TSTMW42

hollow shaft

Ø 58



Italsensor Quality System certified according to the UNI EN ISO 9001



## Features:

TSTMW42 is an analog single-turn absolute encoder, particularly suitable for motor control application.

The encoder output is a pair of SIN-COS signals developed on a single mechanical turn ( a continuous reference signal REF is also provided) and can be supplied with incremental output interface (e.g. for applications requiring the commutation signals U, V, W for motor models starting between 1 up to 8 pole pairs).

- resolution: 1 SIN/COS;
- protection degree: open frame;
- analog output only for SIN/COS;
- cable output.



## MECHANICAL SPECIFICATIONS/ CARATTERISTICHE MECCANICHE

Dimensions/ *Dimensioni*

Shaft loading/ *Carico sull'albero*

Shaft Rotation Speed/ *Numero giri*

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

Moment of inertial/ *Momento di inerzia*

Bearings life/ *Vita dei cuscinetti*

Weight/ *Peso*

see drawings / vedi disegni  
axial/ assiale 40 N; radial/ radiale 60 N  
6.000 RPM continuous/ continui  
0,025 Nm  
40 g cm<sup>2</sup>  
5x 10<sup>9</sup> turns/giri (min) - rev. min.  
~ 0,15 kg

## ELECTRICAL SPECIFICATIONS/ CARATTERISTICHE ELETTRICHE

Power supply/ *Alimentazione*

Output frequency/ *Frequenza in uscita*

Max. output current/ *Corrente massima di uscita*

Supply current without load/ *Assorbimento in corrente a vuoto*

Protection/ *Protezione*

5 V  
up to 6 kHz SIN/COS  
2 mA (SIN/COS)  
<50 mA max. (U, V, W)  
short circuit output protection/ contro il cortocircuito in uscita

## MATERIALS/ MATERIALI UTILIZZATI

Housing/ *Corpo*

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

Aluminum EN AW-2011  
stainless steel AISI303/ acciaio inossidabile AISI303  
UNI 6901 UNI EN 10088-3 DN. 1.4305

## ENVIRONMENTAL SPECIFICATIONS/ CARATTERISTICHE AMBIENTALI

Operating temperature range/ *Temperatura di lavoro*

Storage temperature range/ *Temperatura di stoccaggio*

Relative humidity/ *Umidità relativa*

Vibrations/ *Vibrazioni* (EN 60068-2-6: 1996)

Shock resistance/ *Resistenza a shock* (EN 60068-2-27:1995)

-20 °C ÷ +105 °C  
-30 °C ÷ +80 °C  
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)

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## ORDER CODE

TSTMW42 . = . X . 5 . S . = . 15 . PUnn . XXX-X . Xnnn

a  
 b  
 c  
 d  
 e  
 f  
 g  
 h  
 i  
 j

### **a** MODEL/ MODELLO

TSTMW42

### **g** SHAFT/ ALBERO

15      ∅15 mm H7 (depth 19mm max/ profondità 19 mm mass.)

Other diameters on request/ altri diametri su richiesta

### **b** ASSEMBLY/ MONTAGGIO

=      standard

### **h** ELECTRICAL CONNECTIONS/ CONNESSIONI ELETTRICHE

OUTPUT: 32

PUnn      universal output with cable 1 ÷ 6 m long/ uscita universale con cavo da 1 a 6 m;

nn      Lunghezza cavo - Cable length (es. PU10 = 1 m. ... PU60 = 6 m)

### **c** PULSE RATE/ IMPULSI GIRO

1      SIN/COS (2Vpp/ reference 3V)

n°1 sine/cosine wave per revolution/  
seno/coseno per giro meccanico

### **i** OUTPUT CIRCUITS/ CIRCUITI DI USCITA

32      analog output (only SIN/COS) / uscita analogica (solo SIN/COS)

Other interfaces on request/ altre interfacce su richiesta

### **d** POWER SUPPLY/ ALIMENTAZIONE

5      +5 V ± 5 %

### **e** OUTPUT FREQUENCY/ FREQUENZA IN USCITA

S      from 0 up to 6 kHz (SIN/COS)/ da 0 a 6 kHz (SIN/COS)

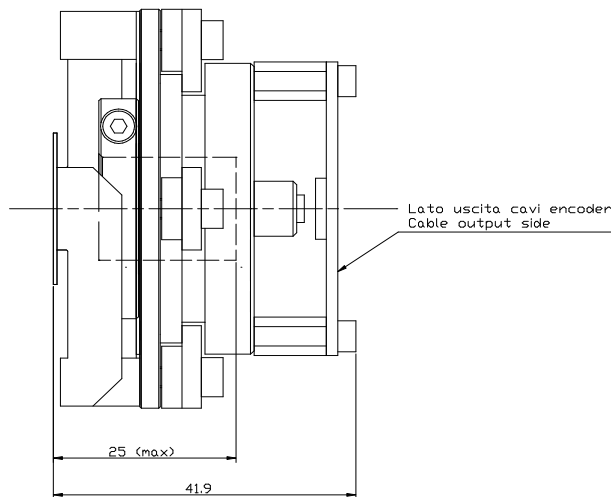
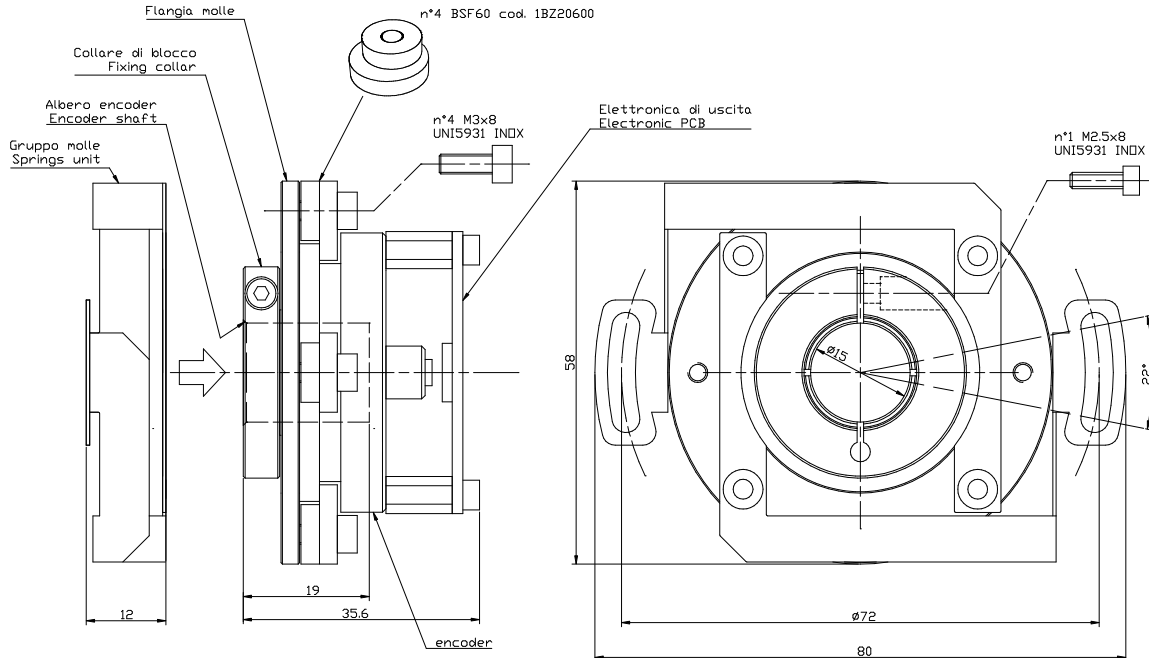
### **j** CUSTOM

CUSTOM      custom execution/ esecuzione custom

### **f** PROTECTION DEGREE/ GRADO DI PROTEZIONE

=      open frame/ esecuzione aperta

## TSTMW42 hollow shaft Ø 58



Output cable/ cavo in uscita	SIN/COS
red/ rosso	+Vcc (5V ±5 %)
black/ nero	0V
green/ verde	SIN
yellow/ giallo	COS
blue/ blu	REF
braiding/ calza	shield/ schermo