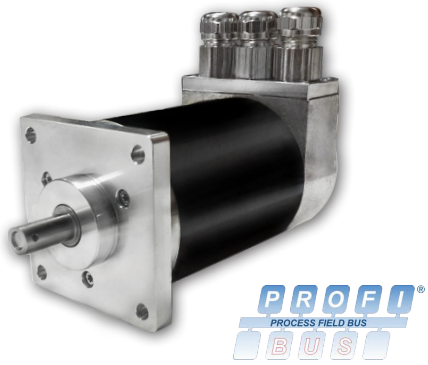
Absolute multiturn encoders

TSM60P-PRDP-PDNET / solid shaft / ∅65

Italsensor Quality System certified according to the UNI EN ISO 9001



Features:

Optical absolute multiturn encoder **TSM60P- PRDP-PRDNET with PROFIBUS and DEVICENET output interfaces** is an ideal solution for use in harsh environmental conditions thanks to its robust design, high resolution and high protection degree.

- resolution singleturn: 2,...,8192 ppr (13 bit);
- number of turn: max. 4096 ppr (12 bit);
- total resolution: 25 bit
- protection degree IP 65;
- programmable GRAY - BINARY;
- output interfaces: PROFIBUS; DEVICENET

MECHANICAL SPECIFICATIONS/ *CARATTERISTICHE MECCANICHE*

Dimensions/ *Dimensioni*	see drawings / vedi disegni
Shaft loading/ *Carico sull'albero*	axial/ assiale 40 N; radial/ radiale 60 N
Moment of inertia/ *Momento di inerzia*	typically $2,5*10^{-6}$ kg m^2
Shaft Rotation Speed/ *Numero giri*	6.000 RPM continuous/ continui
Bearings life/ *Vita dei cuscinetti*	>= 3.9 x 10^{10} turns/giri (min) - rev. min.@ <=3000 RPM, <=60 °C, <= 20N axial, <= 30N radial
Permissible angular acceleration/ *Accelerazione angolare massima*	10^4 rad/s^2
Startup torque/ *Coppia di partenza*	2 Ncm
Weight/ *Peso*	~ 0,7 kg

ELECTRICAL SPECIFICATIONS/ *CARATTERISTICHE ELETTRICHE*

Power supply/ *Alimentazione*	11÷27 V
STD codes/ *Codici STD*	programmable GRAY - BINARY/ programmabile GRAY - BINARIO
Option/ Opzioni	programmable count direction and position preset/ up/down e preset posizione programmabili
Protection/ *Protezione*	against inversion of polarity/ contro inversione di polarità
Power dissipation (without load)/ *Potenza (funzionamento a vuoto)*	< 4W

MATERIALS/ *MATERIALI UTILIZZATI*

Flange/ *Flangia*	aluminum non corroding/ in alluminio anticorodal
Housing/ *Corpo*	black painted aluminum / alluminio verniciato nero
Shaft/ *Albero*	stainless steel/ acciaio inossidabile

ENVIRONMENTAL SPECIFICATIONS/ *CARATTERISTICHE AMBIENTALI*

Operating temperature range/ *Temperatura di lavoro*	-20 °C ÷ +70 °C
Storage temperature range/ *Temperatura di stoccaggio*	-30 °C ÷ +80 °C
Protection degree/ *Grado di protezione* (EN 60529)	IP65
Relative humidity/ *Umidità relativa*	98% RH without condensing/ senza condensazione
Vibrations/ *Vibrazioni* (EN 60068-2-6: 1996)	≤ 100 m/s2, sine 50-2000 Hz
Shock resistance/ *Resistenza a shock* (EN 60068-2-27:1995)	≤ 1000 m/s2, half-sine 11ms

ORDER CODE

TSM60P . XX . 8192 . 4096 . G . 11/27 . K5 . XX . PL= . XXXXX

a b c d e f g h i j

a MODEL/ *MODELLO*

TSM60P

b ASSEMBLY/ *MONTAGGIO*

S	Servo flange/ Flangia servo
SG	Serv-Graffe/ Servo-clip
F	Square flange/ Flangia quadra

c STEPS/ *PASSI PER GIRO*

8192	from 2 up to 8192 steps/turn programmable (13 bit) da 2 a 8192 passi/ giro programmabile

d TURNS/ *NUMERO GIRI*

4096	from 1 to 4096 revolutions programmable (12 bit) da 1 a 4096 giri programmabili

e CODE/ *CODE*

G	Natural Gray code/ codice Gray naturale Programmable/ programmabile Gray-Binary

f POWER SUPPLY/ *ALIMENTAZIONE*

11/27	+11÷27 V

g PROTECTION DEGREE/ *GRADO DI PROTEZIONE*

K5	IP65 (EN 60529: 1991)

h SHAFT/ *ALBERO*

6	Ø6mm (SG)
10	Ø10 mm (S, F)

i ELECTRICAL CONNECTIONS/ *CONNESSIONI ELETTRICHE*

PL=	radial output with a cable gland (3 x PG9)/ uscita su pressacavo radiale (3 x PG9)

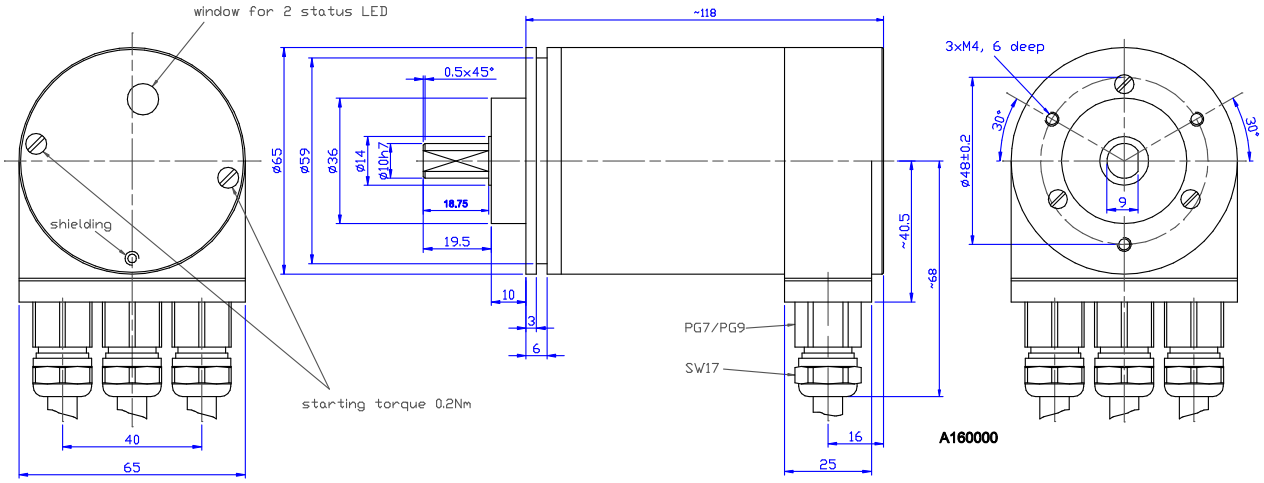
j OUTPUT CIRCUITS/ *CIRCUITI DI USCITA*

PRDP	Profibus (PNO profile class 2)
PDNET	DeviceNET (CAN-Bus-Interface ISO/DIS 11898)

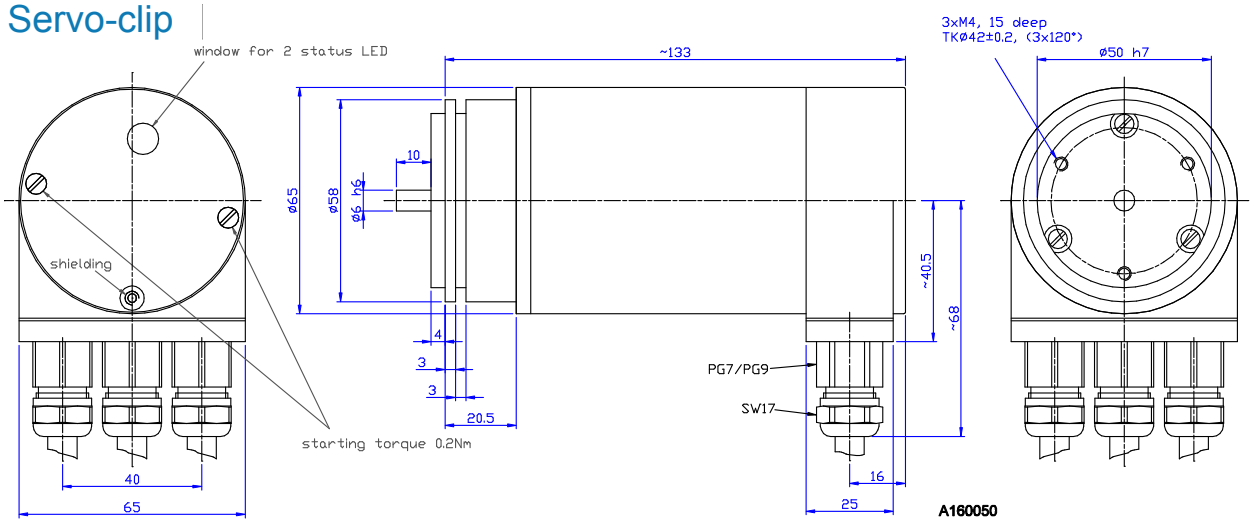
PROFIBUS
Addressing / indirizzamento: 0 ÷99 (adjustable by dip-switches/ tramite dip-switches)
Baud Rate 9.6 kbit/s ÷ 12 Mbit/s

DeviceNET
Addressing / indirizzamento: 0 to 63 (adjustable by dip-switches/ tramite dip-switches)
Baud Rate (adjustable by dip-switches / impostabile tramite dip-switches)
125 kbaud, line length up to 500 m
250 kbaud, line length up to 250 m
500 kbaud, line length up to 100 m

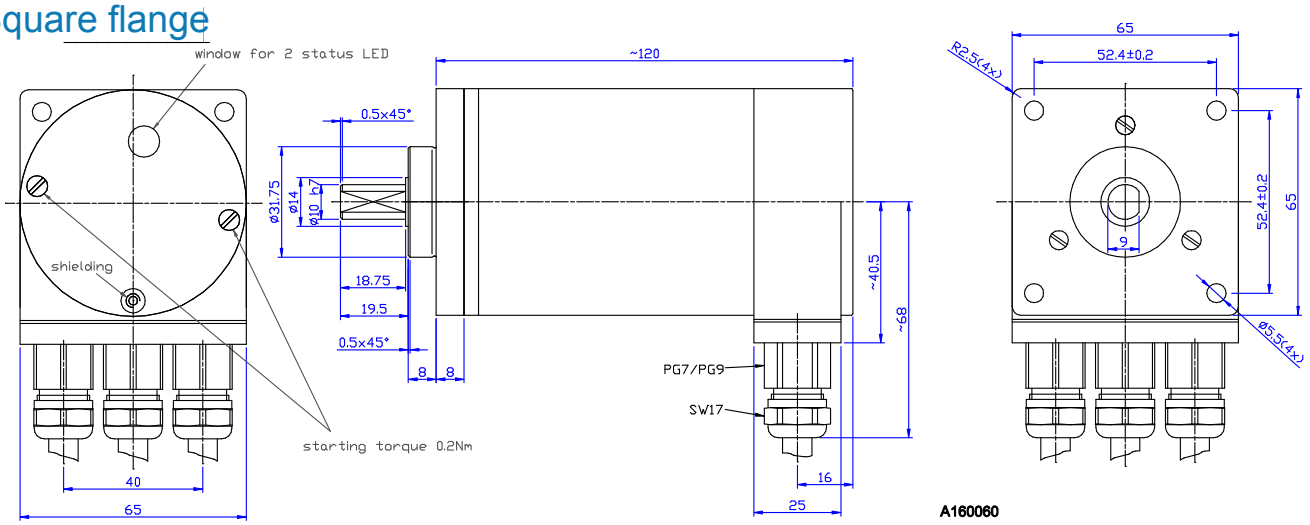
S - Servo flange



SG - Servo-clip



F - Square flange



For shielding
use metric screw M4x8 with forked terminal.
For good contact to housing use a
studded disc DIN6797-A 4.3-Fst.