Absolute multiturn encoders

TSM58P-PRNET-IO / solid shaft / ∅58

Italsensor Quality System certified according to the UNI EN ISO 9001

Features:

Optical absolute multiturn encoder **TSM58P-PRNET-IO with PROFINET IO output interface** is an ideal solution for use in harsh environmental conditions thanks to its robust design, high resolution up to 28 bit and high protection degree up to IP67.

- resolution singleturn: 1,...,65535 ppr (up to 16 bit);
- number of turn: max. 4096 ppr (12 bit);
- total resolution: 1,...,268435456 (28 bit) programmable;
- high protection degree up to IP 67;
- easy setting of a preset value using a control bit.

MECHANICAL SPECIFICATIONS/ *CARATTERISTICHE MECCANICHE*

Dimensions/ *Dimensioni*	see drawings / vedi disegni
Shaft loading/ *Carico sull'albero*	axial/ assiale 40 N; radial/ radiale 80 N
Moment of inertia/ *Momento di inerzia*	typically $3,0*10^{-6}$ kgm^2
Shaft Rotation Speed/ *Numero giri*	9000 RPM, 7000 RPM (continuous/ continui) up to/ fino a 70 °C 7000 RPM, 4000 RPM (continuous/ continui) up to/ fino a T_{max}
Weight/ *Peso*	~ 0,54 kg

ELECTRICAL SPECIFICATIONS/ *CARATTERISTICHE ELETTRICHE*

Power supply/ *Alimentazione*	10÷30 V
Diagnostic Link 1 and 2, LED (green/yellow)/ *(verde/ giallo)*	green – active link; yellow – data transfer / verde – link attivo; giallo – trasferimento dati
Error LED (red/ *rosso*)/ PWR LED *(green/verde)*	see manual/ vedere manuale
Protection/ *Protezione*	against inversion of polarity/ contro inversione di polarità
Power dissipation/ *Potenza assorbita*	<3 W

MATERIALS/ *MATERIALI UTILIZZATI*

Flange/ *Flangia*	aluminum non corroding/ in alluminio anticorodal
Housing/ *Corpo*	zinc die-cast/ pressofusione alluminio
Shaft/ *Albero*	stainless steel/ acciaio inossidabile

ENVIROMENTAL SPECIFICATIONS/ *CARATTERISTICHE AMBIENTALI*

Operating temperature range/ *Temperatura di lavoro*	-40 °C ÷ +85 °C
Protection degree/ *Grado di protezione* (EN 60529)	up to IP67
Relative humidity/ *Umidità relativa*	98% RH without condensing/ senza condensazione
Vibrations/ *Vibrazioni* (EN 60068-2-6)	100 m/s^2, 55 .. 2000 Hz
Shock resistance/ *Resistenza a shock* (EN 60068-2-27)	2500 m/s^2, 6 ms

TSM58P-PRNET-IO | solid shaft | ∅ 58

ORDER CODE

TSM58P . XXX . 65535 . 4096 . B . 10/30 . XX . XX . L= . PRNET

a b c d e f g h i j

a MODEL/ *MODELLO*

TSM58P

b ASSEMBLY/ *MONTAGGIO*

SG1	Clamping flange/ flangia servo
SG2	Synchro flange/ flangia servo-graffe
F	Square flange/ flangia quadra

c STEPS/ *PASSI PER GIRO*

65535	from 1 up to 65535 steps/turn programmable da 1 a to 65535 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*

B	Binary/ binario

f POWER SUPPLY/ *ALIMENTAZIONE*

10/30	+10÷30 V

g PROTECTION DEGREE/ *GRADO DI PROTEZIONE*

K5	IP65 (EN 60529)
K7	IP67 (EN 60529)

h SHAFT/ *ALBERO*

6	Ø6 mm (SG1, SG2, F) Fit/ tolleranza: h7
10	Ø10 mm (SG1, SG2, F) Fit/ tolleranza: f7

i ELECTRICAL CONNECTIONS/ *CONNESSIONI ELETTRICHE*

L=	3 x radial M12 connector 4-pin uscita radiale su n° 3 connettori M12 a 4-pin

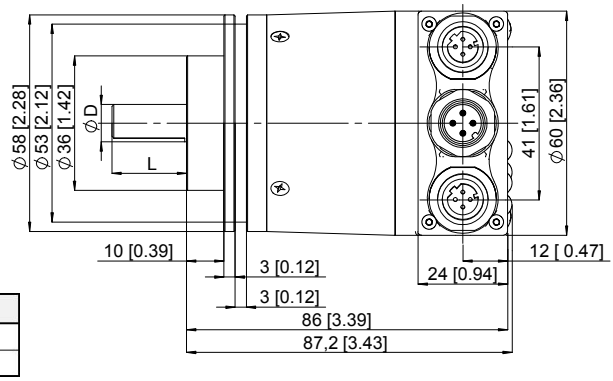
j OUTPUT CIRCUITS/ *CIRCUITI DI USCITA*

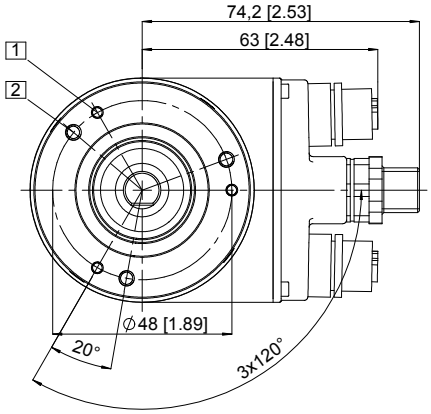
PRNET	PROFINET IO

SG1 - Clamping flange

[1] 3 x M3, 6.0 deep/ *3 x M3, prof. 6.0*

[2] 3 x M4, 8.0 deep/ *3 x M4, prof. 8.0*

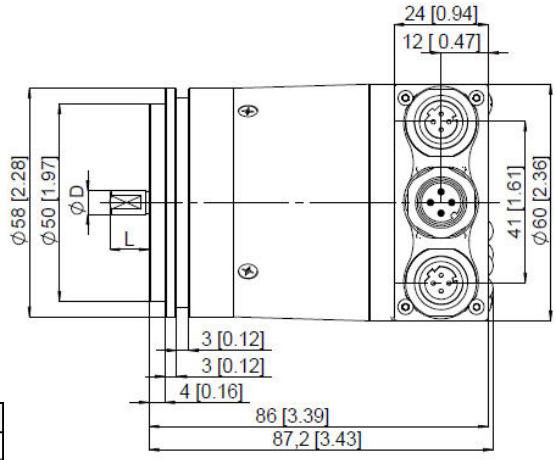


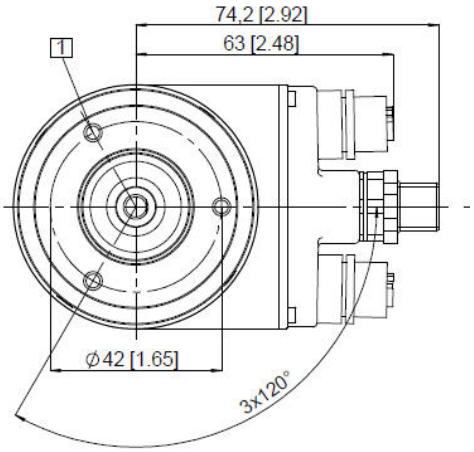


D	L
6	10
10	20

SG2 - Synchro flange

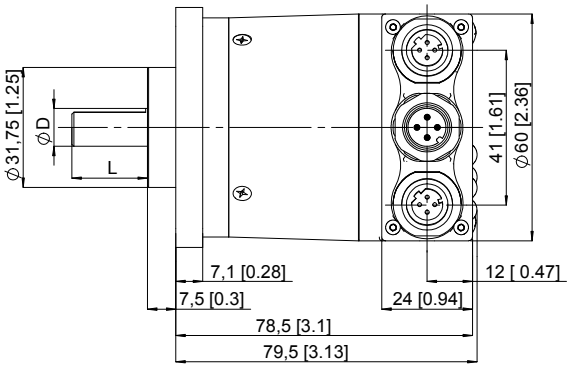
[1] 3 x M4, 6.0 deep/ *3 x M4, prof. 6.0*

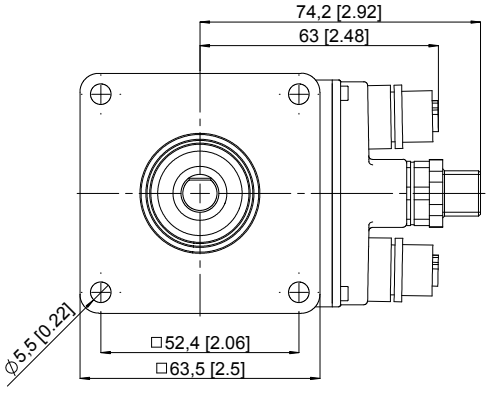




D	L
6	10
10	20

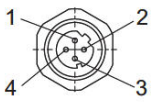
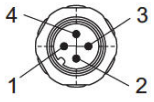
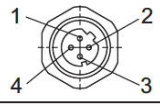
F - Square flange





D	L
6	10
10	20

Terminal assignment/ *schema connessioni*

Interface	Type of connection	Function	M12 connector, 4-pin					
PRNET	N (3 x M12 connector)	Bus Port 1	Signal:	Transmit data+	Receive data+	Transmit data -	Receive data -	 D coded
			Abbreviation:	TxD+	RxD+	TxD-	RxD-	
			Pin:	1	2	3	4	
		Power supply	Signal:	Voltage +	–	Voltage –	–	
			Abbreviation:	+ V	–	0 V	–	
			Pin:	1	2	3	4	
		Bus Port 2	Signal:	Transmit data+	Receive data+	Transmit data -	Receive data -	 D coded
			Abbreviation:	TxD+	RxD+	TxD-	RxD-	
			Pin:	1	2	3	4	

M12 connector, 4-pin/ connettore M12, 4-pin