

TTM58

solid shaft

Ø 58



Italsensor Quality System certified according to the UNI EN ISO 9001

**Features:**

TTM58 - an economic incremental magnetic encoder suitable for different industrial applications.

Thanks to its versatility and reliability, this model allows to reduce costs of production, ensuring completely controlled manufacturing process and significantly reducing downtime – a very important factor for continuous production process.

- economic, versatile and reliable encoder for various applications;
- wide range of flanges;
- resolution up to 2048 ppr, others on demand;
- high protection degree up to IP66;
- cable and connector outputs.

**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 inertia/ Momento di inerzia****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)

2.000 turn/min with protection shaft/ giri/min con asse stagno

0,025 Nm; 0,040 Nm with proof shaft /con asse stagno*(1)

40 g cm²5 x 10⁹ rev. min./ giri (minimo)

~ 0,30 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**

up to 2048, others on demand/ fino a 2048 ppr, altri a richiesta

5 V; 5÷28 V; 11÷30 V

up to 300 kHz/ fino a 300 kHz

on A default, A+B optional/ su canale A predefinito - B- A+B a richiesta

150 mA max

short circuit protection, no limit duration (only output LD2 and PP2);

against inversion of polarity (except 5V, 5/28 V) - available on demand/

contro il cortocircuito (solo elettronica LD2 e PP2);

contro inversione di polarità (escluso 5V, 5/28V) - disponibile su richiesta;

MATERIALS/ MATERIALI UTILIZZATI**Flange/ Flangia****Housing/ Custodia****Shaft/ Albero**

aluminum non corroding/ in alluminio anticorrosione

polyamid 6 (PA6)/ poliammide 6 (PA6);

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 ÷ +85 °C

up to IP66/ fino a IP66

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)

*(1) Not a test parameter, information only/ Valore indicativo

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ORDER CODE

TTMXXX. XXX . XXXXX . XXXXX . X . XX . XX,XX . XXnn . XXX-XXXX . Xnnn

a

b

c

d

e

f

g

h

i

j

a MODEL/ MODELLO

580	bidirectional / bidirezionale
581	bidirectional + index/ bidirezionale + zero (A gated)
582	bidirectional + index/ bidirezionale + zero (A+B gated)

b ASSEMBLY/ MONTAGGIO

F1	Square flange / flangia quadra (TK40)
F2	Square flange / flangia quadra (TK45)
F3	Square flange / flangia quadra (TK50)
SG1	Servo-clip / servo-graffe (TK50)
SG2	Servo-clip / servo-graffe (TK45)
SG3	Servo-clip / servo-graffe
S1	Servo flange / flangia servo
S2	Servo flange / flangia servo (TK45)
FRE	Flange REO - REO 444 (TK50)

c PULSE RATE/ IMPULSI GIRO

1 - 2 - 4 - 8 - 10 - 16 - 20 - 25 - 32 - 40 - 50 - 64 - 80 - 100 - 125 - 128 - 200
250 - 256 - 400 - 500 - 512 - 1024 - 2048

others on demand/ altri a richiesta

d POWER SUPPLY/ ALIMENTAZIONE

5	+5 V ±5 %
5/28	+5 ÷ 28 V
11/30	+11 ÷ 30 V

e OUTPUT FREQUENCY/ FREQUENZA IN USCITA

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

f PROTECTION DEGREE/ GRADO DI PROTEZIONE

K4	IP 64 (EN60529) (F1-F2-F3-SG1-SG2-SG3-S1-S2-FRE)
K5	IP 65 (EN60529) (F1-F3-SG1-S1-FRE)
K6	IP 66 (EN60529) (F1-F3-SG1-S1-FRE)

g SHAFT/ ALBERO

6	Ø 6 mm ((Flange F1- F2 - F3 - SG1 - SG2 - SG3 - S1 - S2)
8	Ø 8 mm (Flange F1- F2 - F3 - SG1 - SG2 - S1 - S2)
9,52	Ø 9,52 mm (Flange F1- F2 - F3 - SG1 - SG2 - S1 - S2)
10	Ø 10 mm (Flange F1- F2 - F3 - SG1 - SG2 - S1 - S2)
11	Ø 11 mm (Flange FRE - SG1)
11R	Ø 11 mm (Flange FRE - SG1)

h ELECTRICAL CONNECTIONS/ CONNESSIONI ELETTRICHE

OUTPUT S ; P ; OC ; OP ; PP2 ; LD ; LD2

PLnn	radial cable gland with cable 1 ÷ 6 m long /pressacavo radiale con cavo da 1 a 6 m;
L07	on 7 pins radial MIL connector /conn. circolare militare radiale a 7 poli (TYPE "A", "B")
L10	on 10 pins radial MIL connector /conn. circolare militare radiale a 10 poli (TYPE "C")
R1	on 12 pins radial "contact" connector /conn. circolare radiale antiorario a 12 poli (TYPE "D" CCW)

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

Note: L10: only for TTM581/ TTM582 with LD, LD2 electronic output
L10: solo versione TTM581/ TTM582 con elettronica LD, LD2

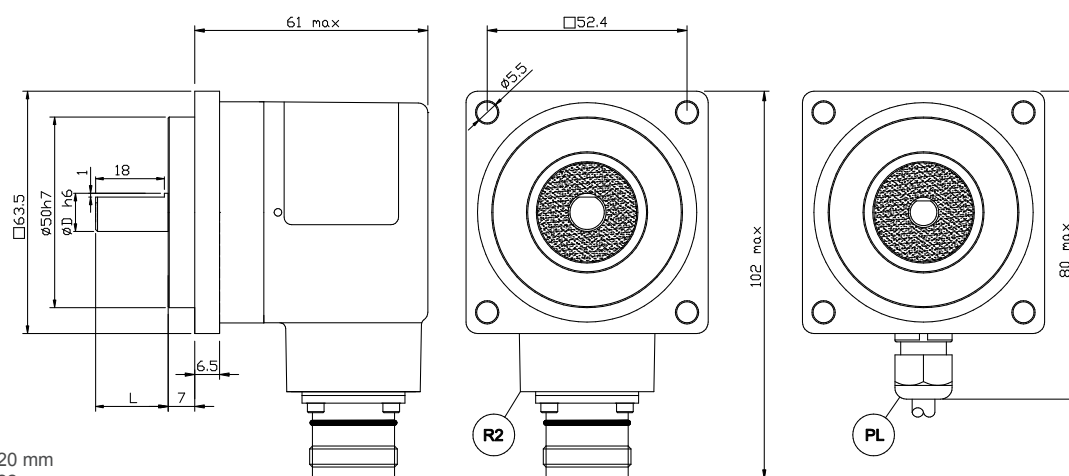
i OUTPUT CIRCUITS/ CIRCUITI DI USCITA

OC	NPN open collector
PP2-5	Push-Pull 5 V output only - solo 5 V
PP2-1130	Push-Pull 11/30 Vcc output (only with voltage supply - solo con alimentazione 11/30 V)
PP2-528	Push-Pull 5/28 Vcc output (only with voltage supply - solo con alimentazione 5/28 V)
LD	Line driver RS422 (26LS31) only - solo 5 V
LD2-5	Line driver 5 Vcc output only - solo 5 V
LD2-1130	Line driver 11/30 Vcc output (only with voltage supply - solo con alimentazione 11/30V)
LD2-528	Line driver 5/28 Vcc output (only with voltage supply - solo con alimentazione 5/28 V)
PP2-530	Line driver 5/30 Vcc output (only with voltage supply - solo con alimentazione 5/30V)
LD2-530	Line-driver output 5V or 5/30V user selectable Line driver 5V oppure 5/30V impostabile dall'utente

j CUSTOM

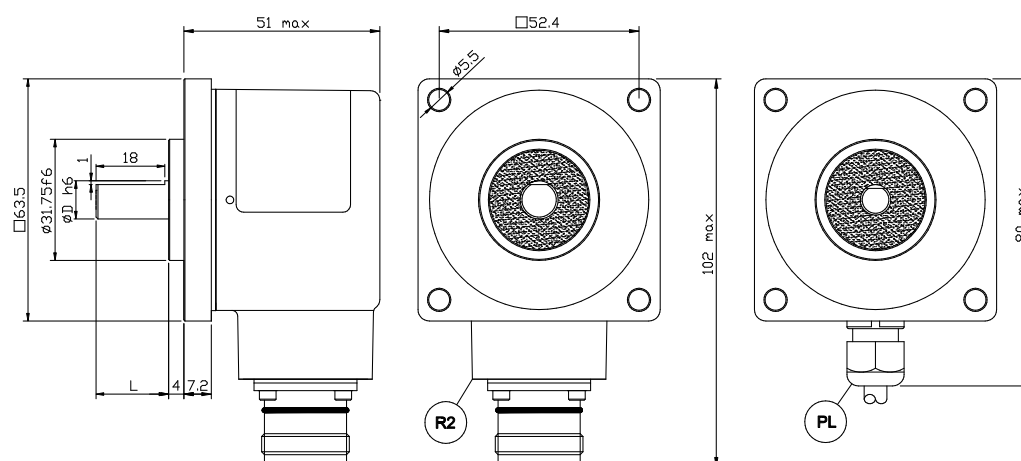
CUSTOM custom execution/ esecuzione custom

*(1) Not a test parameter, information only / Valore indicativo.

TTM58**solid shaft****Ø 58****F1 Flange**

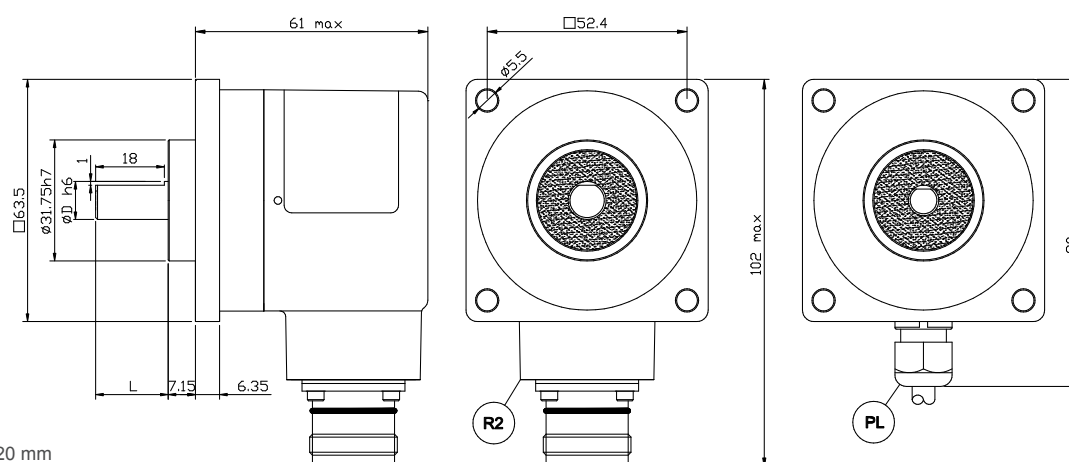
Shaft/ Albero Ø 6,8,10 : L=20 mm
 Shaft/ Albero Ø 9.52 : L=22 mm

2 3 x M4, 8.0 deep/ 3 x M4, prof. 8.0

F2 Flange

Shaft/ Albero Ø 6,8,9.52,10 : L=20 mm

2 3 x M4, 8.0 deep/ 3 x M4, prof. 8.0

F3 Flange

Shaft/ Albero Ø 6,8,10 : L=20 mm
 Shaft/ Albero Ø 9.52 : L=22 mm

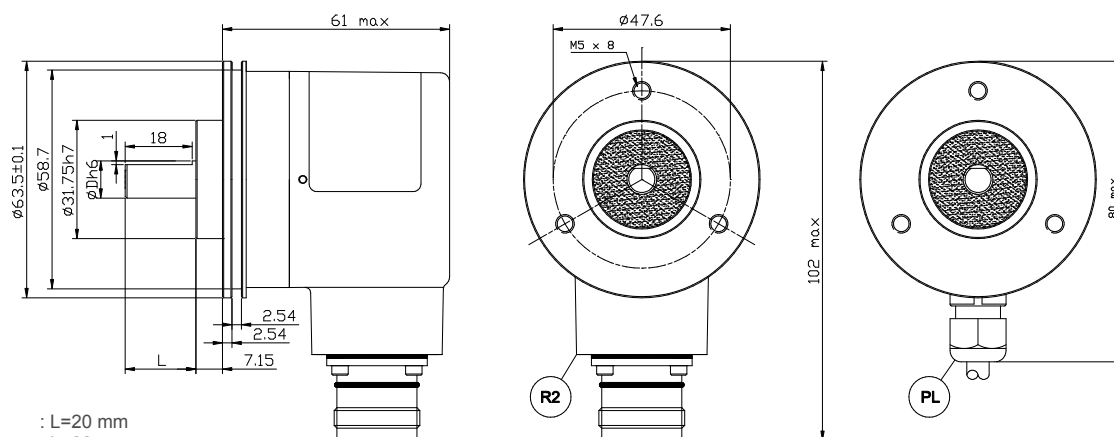
2 3 x M4, 8.0 deep/ 3 x M4, prof. 8.0

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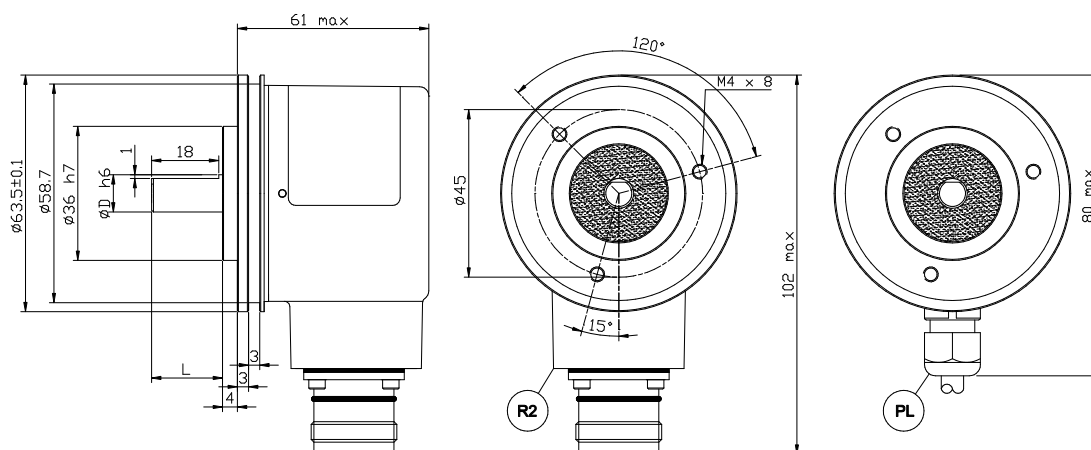
Ø 58

SG1 Flange



Shaft/ Albero Ø 6,8,10 : L=20 mm
 Shaft/ Albero Ø 9.52 : L=22 mm
 Shaft/ Albero Ø 11 cod. 11R : L=20 mm
 2 3 x M4, 8.0 deep/ 3 x M4, prof. 8.0

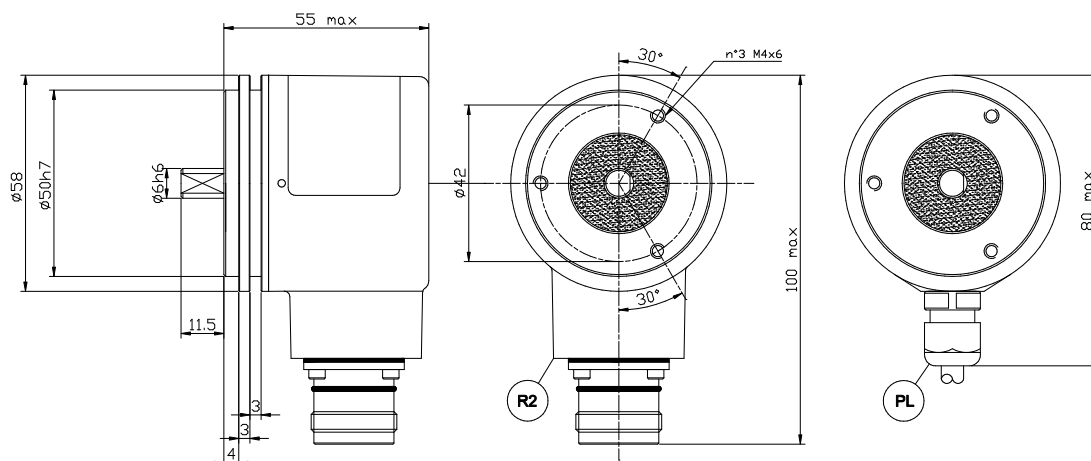
SG2 Flange



Shaft/ Albero Ø 6,8,9.52,10 : L=20 mm

2 3 x M4, 8.0 deep/ 3 x M4, prof. 8.0

SG3 Flange

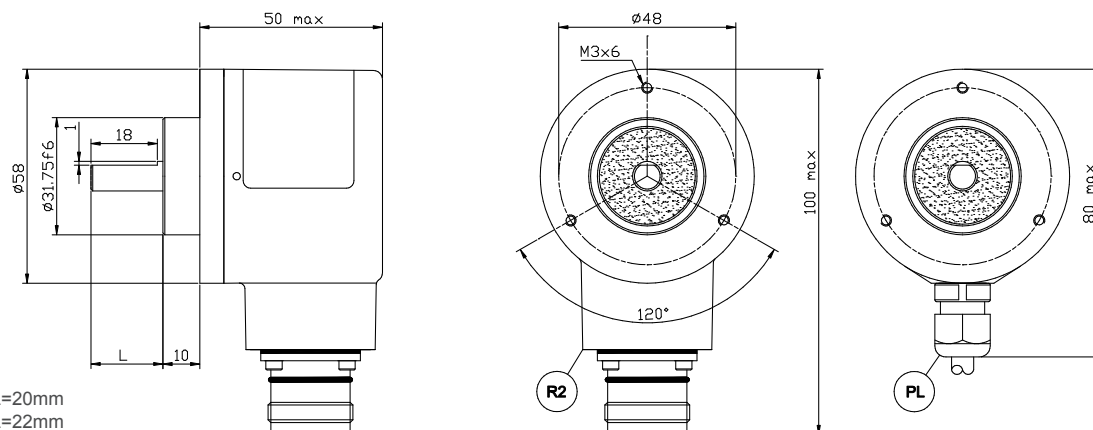


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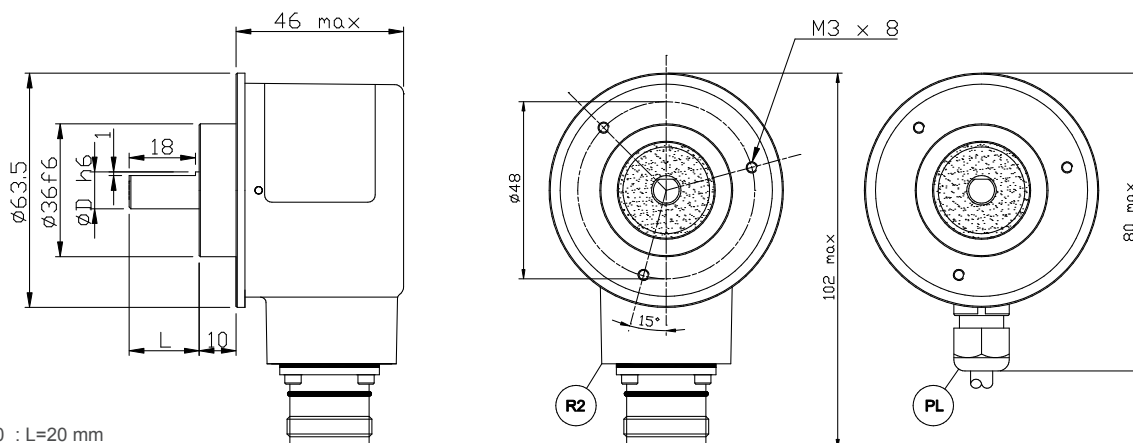
S1 Flange



Shaft/ Albero Ø 6,8,10 : L=20mm
Shaft/ Albero Ø 9.52 : L=22mm

2 3 x M4, 8.0 deep/ 3 x M4, prof. 8.0

S2 Flange



Shaft/ Albero Ø 6,8,9.52,10 : L=20 mm

2 3 x M4, 8.0 deep/ 3 x M4, prof. 8.0

FRE Flange

