

RS500

solid shaft

Ø 500



Italsensor Quality System certified according to the UNI EN ISO 9001



Features:

RS500 - Electronic metric wheel (500 mm) is suitable for applications where linear motion reading is requested (ex. for continuous cutting of plate, wood, textile, glass, road, pipe etc.), assuring high performance and reliability also in heavy-duty applications.
The peripheral surface of the wheel may be in smooth or knurled aluminum or rubber with a high friction coefficient. All the wheels are assembled on the encoder shaft with a collet for assuring perfectly concentric rotation. The mainframe of the encoder for each model may rotate on the rotation axis in order to reach an optimum positioning of the cable, if provided, with lateral output.

- resolution up to 5.000 ppr;
- metric wheel aluminum smooth, aluminum knurled, aluminum tired, plastic tired;
- 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*

Bearing life/ *Vita dei cuscinetti*

Weight/ *Peso*

see drawings/ *vedi disegni*
axial 40N; radial 60N/ *assiale 40N; radiale 60N*;
6.000 RPM (continuous/ *continui*)
5 x 10⁹ rev. min./ *giri (minimo)*
~ 1,4 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*

5.000 ppr; others on demand/ *5.000 ppr; altri a richiesta*
5 V; 24/5 V; 5/28V; 11÷30 V
up to 300 kHz/ *fino a 300 kHz*
on A default, B- 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) /
contro il cortocircuito (solo elettronica LD2 e PP2);
contro inversione di polarità (escluso 5V)

MATERIALS/ MATERIALI UTILIZZATI

Flange/ *Flangia*

Housing/ *Corpo*

Shaft/ *Albero*

aluminum non corroding/ *in aluminium anticorodal*
Polyamid 6 (PA6)/ *Poliamide 6 (PA)*
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 ÷ +80 °C
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)*

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ORDER CODE

RS500 . X . XXXX . XXXXX . X . XX . XXnn . XXX-XXXX . Xnnn
a**b****c****d****e****f****g****h****i****a** MODEL/ MODELLO

RS500 incremental metric wheel of 500 mm for turn/ ruota metrica incrementale di 500 mm
B + Z bidirec + index/ bidirezionale + zero

b ASSEMBLY/ MONTAGGIO

G aluminum tired/ alluminio gommata;
L aluminum smooth/ alluminio liscio;
P plastic tired/ plastica gommata;
Z aluminum knurled/ alluminio zigrinato;

c PULSE RATE/ IMPULSI GIRO

50 - 60 - 64 - 100 - 150 - 200 - 250 - 300 - 500 - 600 - 625 - 720 - 1000 -
 1024 - 1200 - 1440 - 1500 - 1800 - 2000 - 2048 - 2500 - 5000

others on demand/ altri a richiesta

d POWER SUPPLY/ ALIMENTAZIONE

5 +5 V $\pm 5\%$
5/28 +5 +28 V
11/30 +11 +30 V
24/5 +11/30 V supply +5 V output

e OUTPUT FREQUENCY/ FREQUENZA IN USCITA

S from 0 a - up to 100 kHz / da 0 a 100 kHz
V from 0 a - up to 300 kHz / da 0 a 300 kHz

f PROTECTION DEGREE/ GRADO DI PROTEZIONE

K4 IP 64 (EN60529)
K5 IP 65 (EN60529)
K6 IP 66 (EN60529)

g ELECTRICAL CONNECTIONS/ CONNESSIONI ELETTRICHE

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

PLnn on 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/ connettore circolare militare radiale a 7 poli;
L10 on 10 pins radial MIL connector/ connettore circolare militare radiale a 10 poli;

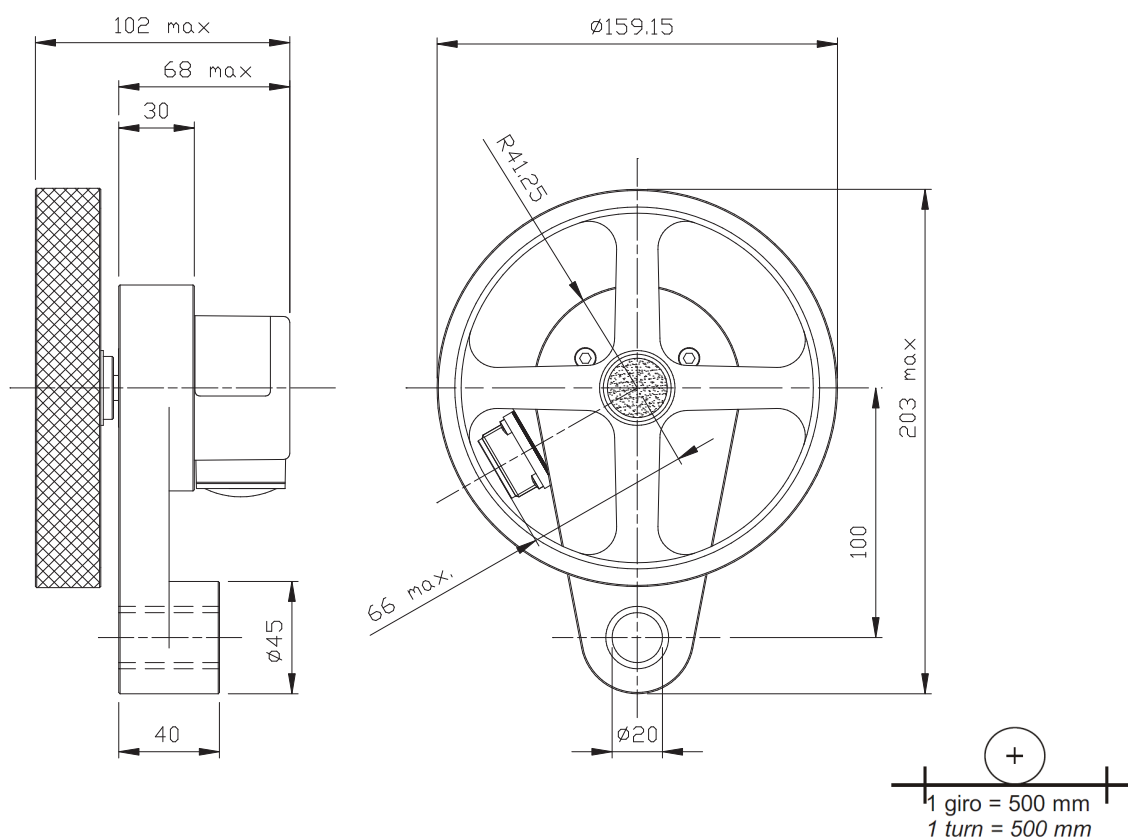
nn cable length/ lunghezza cavo (es. PL10 = 1 m. ...PL60 = 6 m)

h OUTPUT CIRCUITS/ CIRCUITI DI USCITA

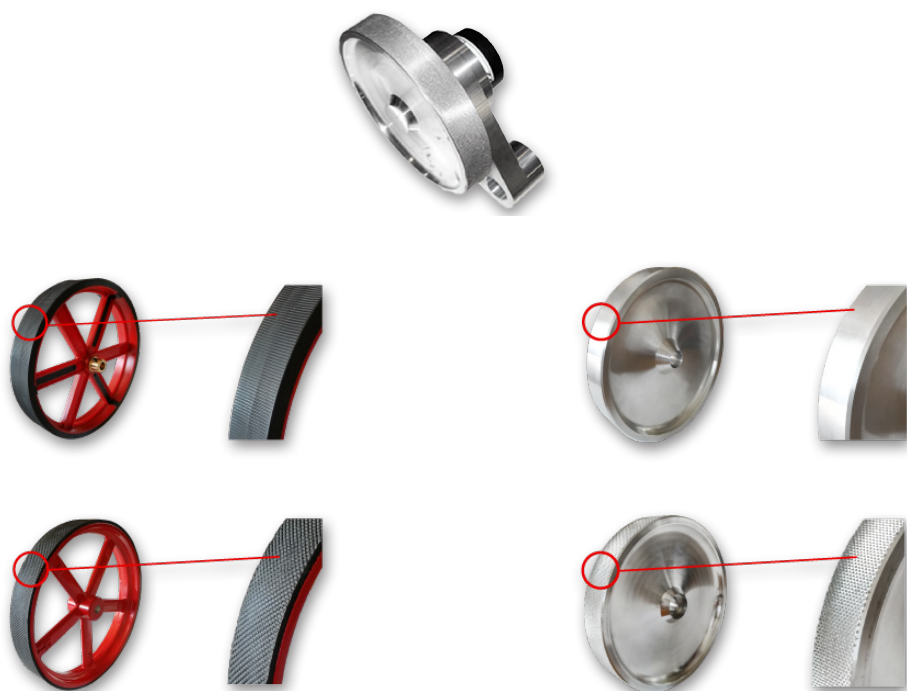
S NPN standard (resistor included- resistenza di pull-up inclusa)
OC NPN open collector
P PNP (resistor included resistenza di pull-down inclusa)
OP PNP open collector
PP2-5 Push-Pull 5 V output 5 V
PP2-1130 Push-Pull 11/30 Vcc output (only with voltage supply - solo con alimentazione 11/30 V)
PP2-528 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 or 24/5V
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 Push-Pull 5/28 Vcc output (only with voltage supply - solo con alimentazione 5/28 V)

i CUSTOM

CUSTOM custom execution/ esecuzione custom



METRIC WHEEL/ RUOTA METRICA



P – plastic tired/ *plastica gommata*
G – aluminum tired/ *alluminio gommata*

L – aluminum smooth/ *alluminio liscio*
Z – aluminum knurled/ *alluminio zigrinato*