

RM200

solid shaft

Ø 200



Italsensor Quality System certified according to the UNI EN ISO 9001



## Features:

RM200 - Electronic metric wheel (200 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 3.600 ppr;
- metric wheel aluminum smooth, aluminum knurled, aluminum tired, plastic tired;
- protection degree IP64;
- cable output;



## 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 20N; radial 20N/ assiale 20N; radiale 20N;  
6.000 RPM (continuous/ *continui*)  
5 x 10<sup>9</sup> rev. min./ *giri (minimo)*  
~ 0,55 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*

3.600 ppr; others on demand/ 3.600 ppr; altri a richiesta  
5 V; 24/5 V; 11÷30 V  
up to 150 kHz/ *fino a 150 kHz*  
on A default, B- A+B optional/ *su canale A predefinito - B- A+B a richiesta*  
100 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 S11/ *in aluminium S11*  
aluminum S11/ *in aluminium S11*  
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  
IP64  
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

**RM200 . X . XXX . XXXX . XXXXX . X . K4 . XXnn . XXX-XXXX . Xnnn**

**a**

**b**

**c**

**d**

**e**

**f**

**g**

**h**

**i**

**j**

### **a** MODEL/ MODELLO

**RM200** incremental metric wheel of 200 mm for turn/ ruota metrica incrementale di 200 mm

### **b** ASSEMBLY/ MONTAGGIO

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

### **c** TYPE/ MODELLO

**M** unidirectional / monodirezionale  
**M+Z** unidirectional + index/ monodirezionale + zero  
**B** bidirectional / bidirezionale  
**B+Z** bidirectional + index/ bidirezionale + zero

### **d** PULSE RATE/ IMPULSI GIRO

2 - 3 - 5 - 10 - 20 - 25 - 32 - 36 - 40 - 50 - 60 - 64 - 72 - 78 - 100 - 108 - 125 -  
 128 - 132 - 150 - 156 - 168 - 176 - 180 - 188 - 192 - 216 - 239 - 200 - 250 -  
 254 - 256 - 300 - 314 - 360 - 400 - 500 - 512 - 600 - 625 - 720 - 800 - 900 -  
 1000 - 1024 - 1250 - 2000 - 2500 - 3600

others on demand/ altri a richiesta

### **e** POWER SUPPLY/ ALIMENTAZIONE

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

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

**S** from 0 a - up to 50 kHz / da 0 a 50 kHz  
**V** from 0 a - up to 150 kHz / da 0 a 150 kHz

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

**K4** IP 64 (EN60529)

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

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

**Pnn** on axial cable gland with cable 1 ÷ 6 m long /pressacavo assiale con cavo da 1 a 6 m;  
**PLnn** radial cable gland with cable 1 ÷ 6 m long /pressacavo radiale con cavo da 1 a 6 m;

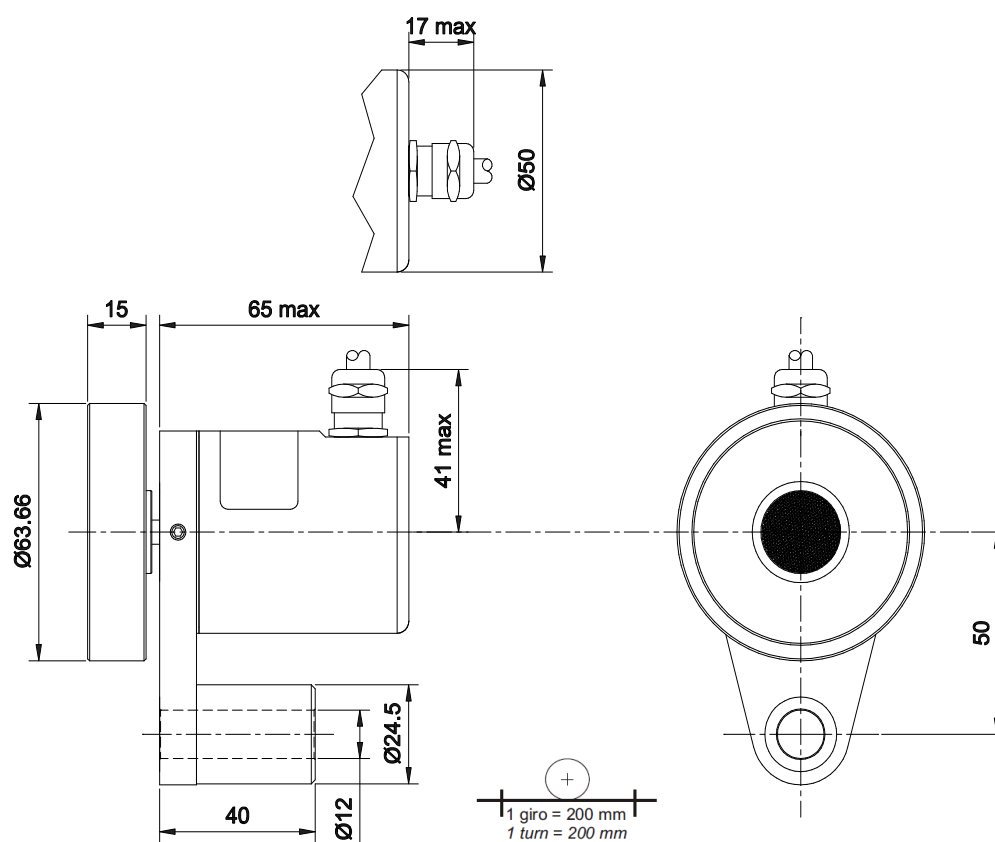
**nn** cable length/ lunghezza cavo (es. PL10 = 1 m. ...PL60 = 6 m)

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

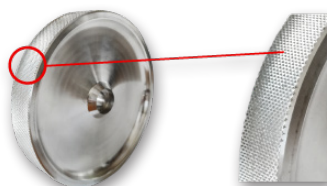
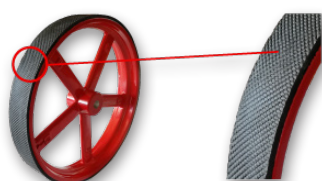
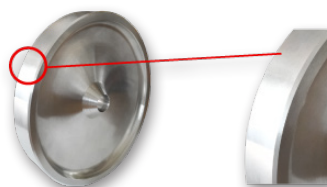
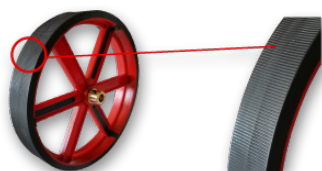
**S** NPN standard ( resistor included- resistenza di pull-up inclusa)  
**OC** NPN open collector  
**P** PNP ( resistor included resistenza di pull-down inclusa )  
**OP** PNP open collector  
**PP2-5** Push-Pull 5 V output 5 V  
**PP2-1130** Push-Pull 11/30 Vcc output ( only with voltage supply -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

### **j** 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*