

# RH200A / B / C RH-RM500A / B / C Metric wheels series

## Metric wheels

Eltra metric wheels were studied for the industrial application, where the linear movement read are required (eg. continuous cutting machines of sheet metal, of wood, of textiles, of glass, etc). These wheels were studied to have a very precise reading and a high resistance to the stress which is typical of these machines. The body, entirely in aluminum, is assembled using an oscillating arm which is pivoted on the axial compact autolubrificant box which assure a long period of operation without any maintenance. The weight of the metric wheel maintains constantly the adherence with the material to be measured allowing the length and the speed to be read. The external surface of the wheel can be in aluminium with crossed knurl or in special anti-oil and anti-slip rubber.



## Ordering codes

**RH 200 A 500 Z 5 N 8 X 3 P R . XXX**

In case of particular Customer variant separate with a full stop

**RH** = support RH200 - 500  
**RM** = support RM500

**200** = wheel linear develop 200 mm  
**500** = wheel linear develop 500 mm

**A** = smooth  
**B** = knurled  
**C** = rubberized  
**Type of wheel**

from **1** to **10000** imp./turn RM500 series  
from **40** to **1024** imp./turn RH200 / 500 series  
**Resolutions**  
N.B.: For impulse availability contact directly our offices

**S** = without zero impulse  
**Z** = with zero impulse  
**Zero impulse**

**5 ÷ 28** = power supply RM500 series  
**5 / 8 ÷ 24** = power supply RH200 / 500 series  
**Encoder powers supply (Vdc)**  
N.B.: LINE DRIVER available only with 5 Vdc or 8 ÷ 24 Vdc power supply

**XXX** = Particular Customer variants indicated by a progressive number from 001 to 999

**R** = radial  
**A** = axial

**P** = standard output cable 0.5 m for RH200  
standard output cable 1.5 m for RH-RM500

**M** = connector MS3106E 16S-1S or 18-1S

**J** = connector JMSP 1607 F or 1610 F

N.B.: Connectors M and J are available only for the metric wheels series RH-RM500

**3** = 3000

**R.P.M.**

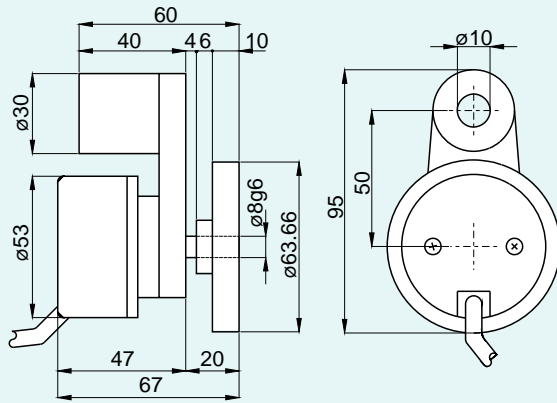
**X** = standard IP54 RH200  
standard IP64 RH - RM500  
**S** = optional IP66  
**Protection**

**8** = ø 8 mm RH200  
**10** = ø 10 mm RH - RM500  
**Shaft diameter**

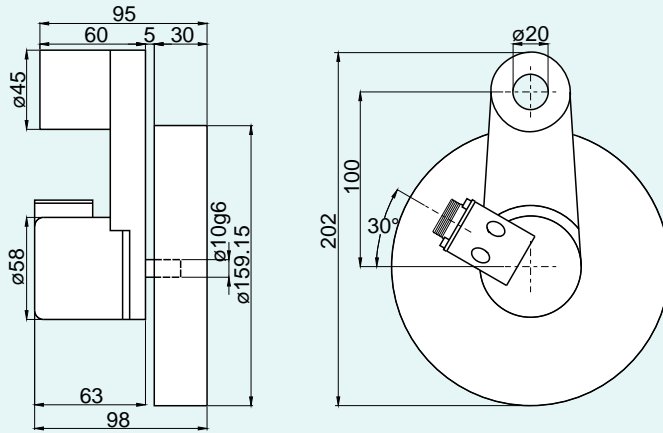
**N** = NPN  
**C** = NPN OPEN COLLECTOR  
**P** = PUSH PULL  
**L** = LINE DRIVER  
**Electronic output configuration**

N.B.: For the optionals on output configurations see the output incremental connection card

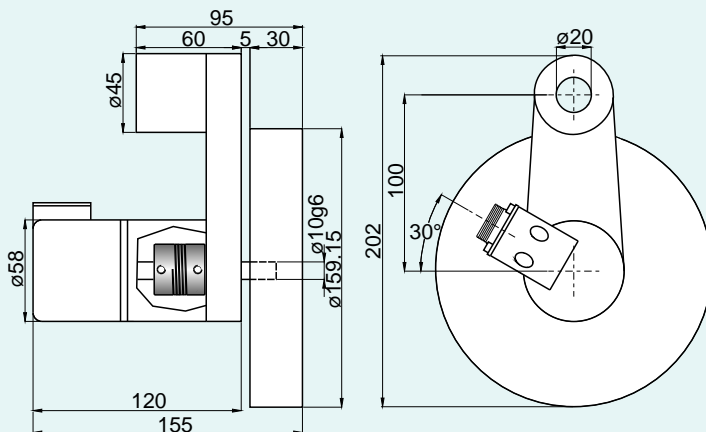
### RH200



### RH500



### RM500



### Electronic Characteristics RM500 Series

<b>Resolutions</b>	from 1 to 10000 impulses / turn
<b>Power supply</b>	5 ÷ 28 Vdc N.B.: LINE DRIVER only with 5 / 8 ÷ 24 Vdc power supply
<b>Consumption without load</b>	80 mA
<b>Max output current</b>	50 mA per channel 20 mA per channel with LINE DRIVER
<b>Electronic output configuration</b>	NPN / NPN OPEN COLLECTOR / PUSH PULL / LINE DRIVER
<b>Max output frequency</b>	Max 300 KHz $F = \frac{\text{RPM} \times \text{Resolutions}}{60}$

### Electronic Characteristics RH200 Series

<b>Resolutions</b>	from 40 to 1024 impulses / turn
<b>Power supply</b>	5 Vdc / 8 ÷ 24 Vdc N.B.: LINE DRIVER only with 5 / 8 ÷ 24 Vdc power supply
<b>Consumption without load</b>	50 mA bidirectional 100 mA bidirectional with zero
<b>Max output current</b>	50 mA per channel 20 mA per channel with LINE DRIVER
<b>Electronic output configuration</b>	NPN / NPN OPEN COLLECTOR / PUSH PULL / LINE DRIVER
<b>Max output frequency</b>	Max 100 KHz $F = \frac{\text{RPM} \times \text{Resolutions}}{60}$

### Mechanical Characteristics

<b>Shaft diameter (mm)</b>	ø8 g6 RH200 ø10 g6 RH - RM500
<b>Protections</b>	IP54 standard for RH200 IP64 for RH-RM500 IP66
<b>R.P.M. Max</b>	3000 continuous
<b>Shock</b>	50 G per 11 msec (with flexible disc) 20 G per 11 msec (with glass disc)
<b>Vibrations</b>	10G 10 ÷ 2000 Hz
<b>Bearings life</b>	10 <sup>9</sup> revolutions
<b>Bearings</b>	N°2 ball bearings + n°2 ball bearings on the support for RM500
<b>Shaft material</b>	Stainless steel AISI303
<b>Body material</b>	Aluminium UNI5076
<b>Support material</b>	Aluminium UNI 9002/5 painted
<b>Wheel material</b>	Aluminium UNI 9002/5 per Sv.200 Aluminum UNI 3051 per Sv.500
<b>Operating temperature</b>	0° ÷ +60°C
<b>Storage temperature</b>	-25° ÷ +70°C
<b>Weight of encoder + support</b>	~ 250g RH200 ~ 1000g RM500
<b>Wheel weight</b>	~ 100g per Sv.200 ~ 800g per Sv.500

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