

MAIN FEATURES

Metric wheel series designed for specific industrial applications where is required to measure a linear movement (i.e. continuous sheet cutting machines of wood, textiles, glass, etc.).

Precise reading and high stress resistance are the main features of these encoders. The body is entirely designed of aluminium and mounted using an oscillating arm pivoted on the shaft. It comes with an integrated self-lubricating compact box to assure a long operation period without any maintenance. The weight of the metric wheel keeps a stable contact with the material, allowing an accurate measurement of both length and speed.

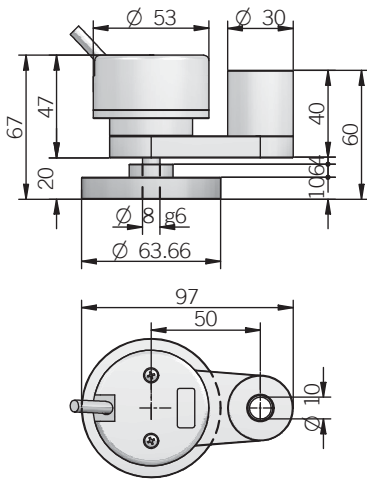
The wheel surface can be in crossed-knurl aluminium, special anti-oil or anti-sliding rubber.



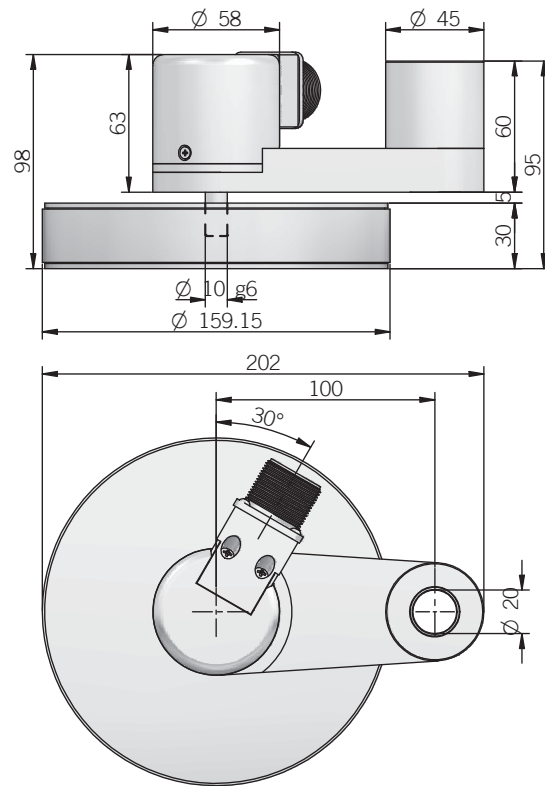
ORDERING CODE

RH 200 A 500 Z 5 L 8 X 3 P R . XXX	
SERIES RH series RH RL series RL RM series RM	VARIANT XXX custom version
SIZE (RH) 200 mm linear extent 200 (RL-RM) 500 mm linear extent 500	DIRECTION TYPE A axial R radial
WHEEL TYPE smooth A knurled B rubberized C	OUTPUT TYPE P cable output (standard length 0,5 m) (RH 200) cable output (standard length 1,5 m) (RL - RM 500) M M connector output (RL - RM 500) J J connector output (RL - RM 500)
RESOLUTION ppr (RH series) from 50 to 1024 ppr (RL series) from 10 to 2500 ppr (RM series) from 1 to 10000 <i>N.B.: please see resolution table or directly contact our offices for pulses availability</i>	MAX ROTATION SPEED 3 3000 rpm
ZERO PULSE without zero pulse S with zero pulse Z	ENCLOSURE RATING X IP 54 (RH 200) X IP 64 (RL - RM 500) S IP 66 (RL - RM 500)
POWER SUPPLY (available only with L electronic output) 5 V DC 5 (available only with L or PC electronic output) 8 ... 24 V DC 8/24 (RL-RM series only) 5 ... 28 V DC 5/28	SHAFT DIAMETER 8 mm (RH 200) 10 mm (RL - RM 500)
	OUTPUT TYPE N NPN C NPN open collector P push-pull PC protected push-pull (AEIC-7272) L line driver

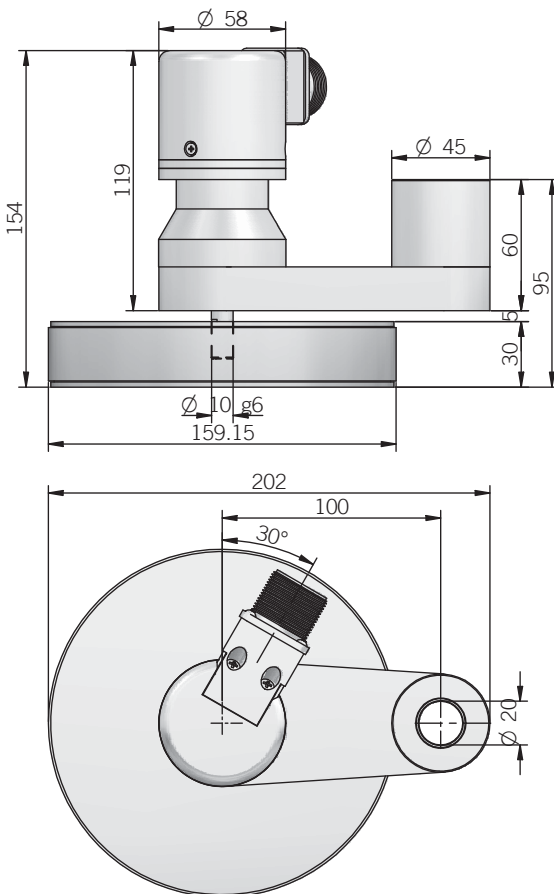
RH 200 A / B / C



RL 500 A / B / C



RM 500 A / B / C



Mechanical specifications

Shaft diameter	ø 8 mm (RH 200) ø 10 mm (RL - RM 500)
Enclosure rating	IP 54 (RH 200) (IEC 60529) IP 64 (RL - RM 500) (IEC 60529) IP 66 (RL - RM 500) (IEC 60529)
Max rotation speed	3000 rpm
Shock	50 G, 11 ms up to 2500 ppr (IEC 60068-2-27) 20 G, 11 ms from 3000 ppr (IEC 60068-2-27)
Vibration	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
Shaft material	1.4305 / AISI 303 stainless steel
Body material	aluminium UNI 5076
Support material	EN-AW 2011 aluminum
Bearings	2 ball bearings 2 ball bearings on support (RM 500)
Bearings life	10 ⁹ revolutions
Operating temperature	-10° ... +60°C
Storage temperature	-25° ... +70°C
Encoder weight + support weight	250 g (RH 200) 1000 g (RL - RM 500)
Wheel weight	100 g (RH 200) 800 g (RL - RM 500)

Electrical specifications (RH series)

Resolution	from 50 to 1024 ppr
Power supply	5 V DC \pm 10% 8 ... 24 V DC \pm 5%
Current consumption without load	100 mA max
Max load current	50 mA for channel 20 mA for channel (line driver)
Output type	NPN NPN open collector push-pull HTL / RS422 line driver
Max output frequency	100 kHz
Counting direction	A leads B clockwise (shaft view)
Electromagnetic compatibility	IEC 61000-6-2 IEC 61000-6-4

Electrical specifications (RM series)

Resolution	from 1 to 10000 ppr
Power supply	5 V DC \pm 10% 5 ... 28 V DC \pm 5% 8 ... 24 V DC \pm 5% (reverse polarity protection)
Current consumption without load	100 mA max
Max load current	50 mA for channel 20 mA for channel (line driver)
Output type	NPN NPN open collector push-pull HTL / RS422 line driver
Max output frequency	300 kHz
Counting direction	A leads B clockwise (shaft view)
Electromagnetic compatibility	IEC 61000-6-2 IEC 61000-6-4

Electrical specifications (RL series)

Resolution	from 10 to 2500 ppr
Power supply	5 V DC \pm 10% 5 ... 28 V DC \pm 5% 8 ... 24 V DC \pm 5% (reverse polarity protection)
Current consumption without load	100 mA max
Max load current	50 mA for channel 20 mA for channel (line driver)
Output type	NPN NPN open collector push-pull HTL / RS422 line driver
Max output frequency	300 kHz
Counting direction	A leads B clockwise (shaft view)
Electromagnetic compatibility	IEC 61000-6-2 IEC 61000-6-4

RH series resolutions

50 - 100 - 200 - 250 - 400 - 500 - 512 - 900 - 1000 - 1024

RL series resolutions

10 - 20 - 50 - 100 - 150 - 200 - 250 - 300 - 360 - 400 - 500 - 512 - 600 - 720 - 1000 - 1024 - 1200 - 1440 - 2000 - 2048 - 2500

RM series resolutions

1 - 2 - 4 - 5 - 10 - 15 - 16 - 20 - 25 - 30 - 32 - 40 - 50 - 60 - 70 - 80 - 90 - 100 - 120 - 128 - 150 - 160 - 180 - 200 - 240 - 250 - 256 - 300 - 350 - 360 - 400 - 450 - 480 - 500 - 512 - 600 - 625 - 660 - 700 - 720 - 750 - 800 - 900 - 1000 - 1024 - 1200 - 1250 - 1440 - 1500 - 1600 - 1800 - 2000 - 2048 - 2500 - 3000 - 3600 - 4000 - 4096 - 5000 - 6000 - 7200 - 8000 - 8192 - 9000 - 10000

Connections

Function	N / C / P cable output	Line driver cable output	Output J7 N / C / P	Output J7 Line Driver without Zero	Output M7 N / C / P	Output M7 Line Driver without Zero	Output J10 Line Driver with Zero	Output M10 Line Driver with Zero
+V DC	red	red	6	4	F	D	4 - 5	D - E
0 V	black	black	1	6	A	F	6	F
Ch. A	green	green	3	1	C	A	1	A
Ch. A-	/	brown	/	3	/	C	7	G
Ch. B	yellow	yellow	5	2	E	B	2	B
Ch. B-	/	orange	/	5	/	E	8	H
Ch. Z	blue	blue	4	/	D	/	3	C
Ch. Z-	/	white	/	/	/	/	9	I
\equiv	shield	shield	7	7	G	G	10	J