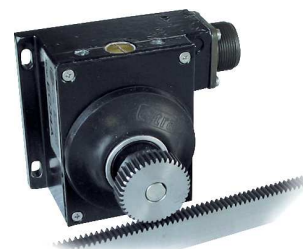


### MAIN FEATURES

Encoder for rack with automatic slack recovery. If compared to an incremental linear system, this type of encoder extremely simplifies linear measurements and overcomes measurement problems on long distance.

Encoder is sealed in a solid aluminium body and integrate a preloading system that allows automatic slack recovery between rack and pinion.

- 3 channel encoder (A / B / Z) up to 2500 ppr
- Power supply up to +30 V DC with several electrical interfaces available
- Up to 220 kHz output frequency
- Cable or connector output



### ORDERING CODE

EC 34A 500 S 5/28 P 10 P .XXX

**SERIES**  
encoder for rack **EC**

**MODEL**  
flange **34A**

**RESOLUTION**  
ppr **100 ... 2500**  
refer to the available pulses list

**ZERO PULSE**  
without zero pulse **S**  
with zero pulse **Z**

**POWER SUPPLY**  
(with L electrical interface) 5 V DC **5**  
5 ... 28 V DC **5/28**

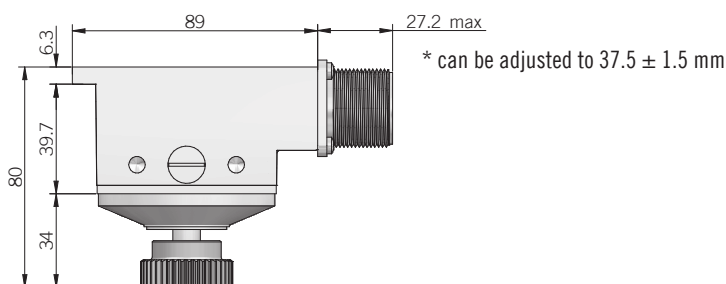
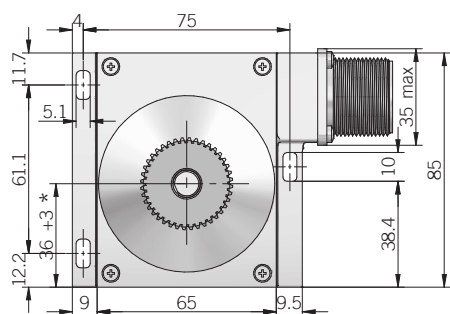
**ELECTRICAL INTERFACE**  
NPN open collector **C**  
push-pull **P**  
line driver **L**  
power supply 5/28V - output RS-422 **RS**

**SHAFT DIAMETER**  
mm **10**

**OUTPUT TYPE**  
cable (standard length 1,5 m) **P**  
preferred cable lengths 2 / 3 / 5 / 10 m, to be added after output type  
MIL connector **M**  
JIS-C-5432 connector **J**  
female connector included, without female please add 162 as variant code

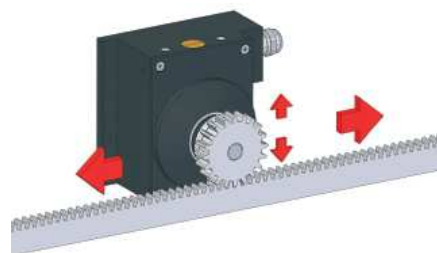
**VARIANT**  
custom version **XXX**

34A



for rack and cogged wheel please refer to Accessories

dimensions in mm



ELECTRICAL SPECIFICATIONS	
<b>Resolution</b>	from 100 to 2500 ppr
<b>Power supply</b> <sup>1</sup>	5 = 4,5 ... 5,5 V DC 5/28 = 4,5 ... 30 V DC (reverse polarity protection)
<b>Current consumption without load</b>	100 mA max
<b>Max load current</b>	C / P = 50 mA / channel L / RS = 20 mA / channel
<b>Electrical interface</b> <sup>2</sup>	NPN open collector (AEIC-7273, pull-up max +30 V DC) push-pull / line driver HTL (AEIC-7272) line driver RS-422 (AELT-5000 or equivalent)
<b>Max output frequency</b>	220 kHz
<b>Counting direction</b>	A leads B clockwise (shaft view)
<b>Electromagnetic compatibility</b>	according to 2014/30/EU directive
<b>RoHS</b>	according to 2015/863/EU directive
<b>UL / CSA</b>	certificate n. E212495

<sup>1</sup> as measured at the transducer without cable influences<sup>2</sup> for further details refer to OUTPUT LEVELS on TECHNICAL BASICS section<sup>3</sup> maximum load for static usage<sup>4</sup> measured on the transducer flange<sup>5</sup> condensation not allowed

MECHANICAL SPECIFICATIONS	
<b>Shaft diameter</b>	ø 10 mm
<b>Enclosure rating</b>	IP 64 (IEC 60529)
<b>Max rotation speed</b>	3000 rpm
<b>Max shaft load</b> <sup>3</sup>	200 N axial / radial
<b>Shock</b>	50 G, 11 ms (IEC 60068-2-27)
<b>Vibration</b>	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
<b>Starting torque (at +20°C / +68°F)</b>	< 0,06 Nm (8,50 Ozin)
<b>Housing material</b>	painted aluminum
<b>Shaft material</b>	1.4305 / AISI 303 stainless steel
<b>Bearings</b>	n.2 ball bearings
<b>Bearings life</b>	10 <sup>9</sup> revolutions
<b>Operating temperature</b> <sup>4,5</sup>	-20° ... +70°C (-4° ... +158°F)
<b>Storage temperature</b> <sup>5</sup>	-25° ... +70°C (-4° ... +158°F)
<b>Weight</b>	700 g (24,69 oz)

## RESOLUTIONS

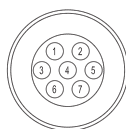
100 - **200** - 300 - 360 - 400 - **500** - 512 - 600 - 720 - **1000** - 1024 - 1200 - 1440 - **2000** - 2048 - 2500

please directly contact our offices for other pulses, preferred resolutions in bold

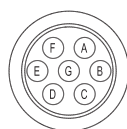
## CONNECTIONS

Function	Cable C / P	Cable L / RS	7 pin J C / P	7 pin J L / RS no Zero	7 pin M C / P	7 pin M L / RS no Zero	10 pin J L / RS with Zero	10 pin M L / RS with Zero
+V DC	red	red	6	4	F	D	4 - 5	D - E
0 V	black	black	1	6	A	F	6	F
A+	green	green	3	1	C	A	1	A
A-	/	brown	/	3	/	C	7	G
B+	yellow	yellow	5	2	E	B	2	B
B-	/	orange	/	5	/	E	8	H
Z+	blue	blue	4	/	D	/	3	C
Z-	/	white	/	/	/	/	9	I
≡	shield	shield	7	7	G	G	10	J

J connector (7 pin)  
JIS-C-5432 Size 16  
solder side view FV



M connector (7 pin)  
Amphenol MS3102-E-16-S  
solder side view FV



J connector (10 pin)  
JIS-C-5432 Size 16  
solder side view FV



M connector (10 pin)  
Amphenol MS3102-E-18-1  
solder side view FV

