



### Main characteristics

- Absolute measurement of position and speed
- Possibility of one or two cursors simultaneously
- Local intelligence
- Interface: CANopen DS-301 V4.01 Device Profile DS-406 V2.0
- Strokes from 50 to 4000 mm
- Position resolution up to  $2\mu\text{m}$
- Speed resolution up to  $0,01\text{mm/sec}$
- Linearity error 0.02%
- Repeatability error 0.01mm
- Resistance to vibrations (DIN IEC68T2/6 12g)
- IP67 protection

Contactless linear position transducer with magnetostrictive technology. The absence of electrical contact on the cursor eliminates all wear and guarantees almost unlimited life.

The MK4 CANopen integrates a microprocessor to process the measurement and to diagnose the transducer.

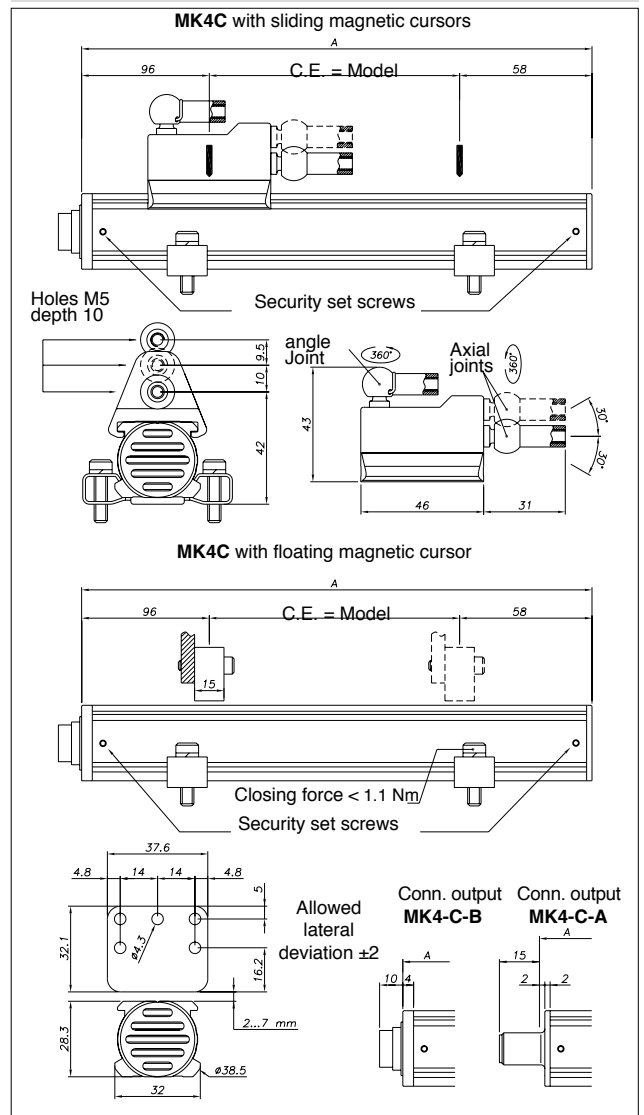
The CAN field bus communication system provides fast and safe transmission.

The use of CANopen DS-301 protocol and Device Profile DS-406 provides quick and easy integration of the transducer in the control and automation system.

### TECHNICAL DATA

Model	from 50 to 4000 mm
Measurement taken	linear position and speed
Position read sampling time	from 1 to 4 ms (depending on length)
Shock test DIN IEC68T2-27	100g - 11ms - single blow
Vibration DIN IEC68T2-6	12g / 10...2000Hz
Sliding cursor drag force	$\leq 1\text{ N}$
Shift speed	$\leq 10\text{ m/s}$
Max. acceleration	$\leq 100\text{ m/s}^2$ shift
Resolution	$5\mu\text{m}$ ( $2\mu\text{m}$ on request)
Cursor	Floating ring with integrated magnets
Rated power supply	$24\text{Vdc} \pm 20\%$
Max. power ripple	1 Vpp
Max. input	90mA max
Output signal	CAN bus digital communication
Electrical isolation	500V (D.C. power/ground)
Reverse polarity protection	YES
Overvoltage protection	Varistors on power line
Overcurrent protection	PTC (self-resettable fuse on power line)
Environmental protection	IP67
Work temperature	$-30...+75^\circ\text{C}$
Storage temperature	$-40...+100^\circ\text{C}$
Coefficient of temperature	Typical 20 ppm/ $^\circ\text{C}$

### MECHANICAL DIMENSIONS



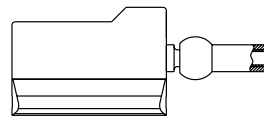


## CURSORS ON REQUEST

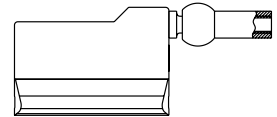
P C U R

Cursors	
Sliding cursor , axial joint (low) (STANDARD)	035
Sliding cursor, axial joint (high)	036
Sliding cursor, angled joint	037
Floating cursor	034

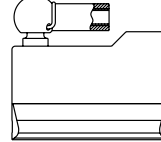
PCUR035



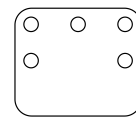
PCUR036



PCUR037



PCUR034

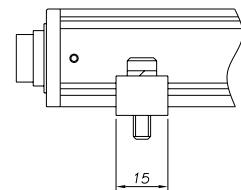
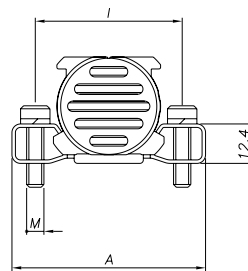


## BRACKET S ON REQUEST



P K I T

Brackets (2 brackets for every kit)	
Bracket in steel, interaxis 42.5mm	090
Bracket in steel, interaxis 50mm	091



Brackets code	Interaxis (i)	Screw (V)	Dimension (A)
PKIT090	42.5	M4	56
PKIT091	50	M5	63.5

## OPTIONAL FEMALE CONNECTORS

For A outputs, M12 thread connector

Codes: **CON031** for 5-pin output (MK4C A)

**CON041** for 5-pin output (MK4C A)

For B outputs, M16 thread connector

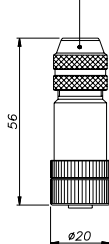
Codes: **CON021** for 6-pin output (MK4C B)

**CON022** for 6-pin output (MK4C B)

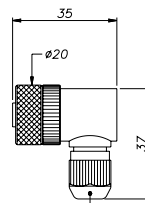
**CON023** for 6-pin output (MK4C B)

Connector extraction length: 10mm

Cable camp  
for  $\phi 6.5$  cable

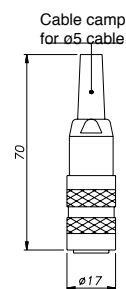


CON031  
IP67 - IEC 48B

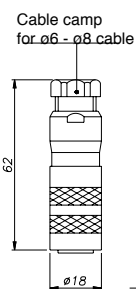


Cable camp  
for  $\phi 6 - \phi 8$  cable

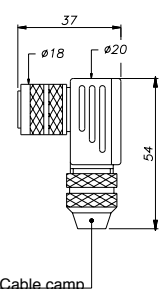
CON041  
IP67



CON021  
IP40 - EMC



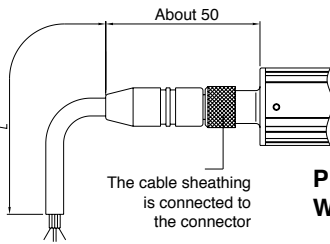
CON022  
IP67 - EMC



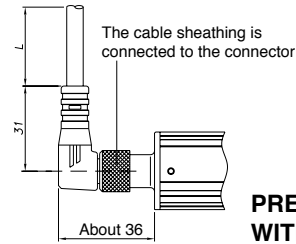
Cable camp  
for  $\phi 5 - \phi 8$  cable

CON023  
IP67 - EMC

## OPTIONAL CABLES OUTPUT A



**PRE-ASSEMBLED CABLE  
WITH STRAIGHT CONNECTOR**



**PRE-ASSEMBLED CABLE  
WITH 90° CONNECTOR**

5-pin cable code		MK4C - A	
Lenght "L"		CODE	
		straight cable	Cable to 90°
2	mt	<b>CAV011</b>	<b>CAV021</b>
5	mt	<b>CAV012</b>	<b>CAV022</b>
10	mt	<b>CAV013</b>	<b>CAV023</b>
15	mt	<b>CAV015</b>	<b>CAV024</b>

Sensors are manufactured in compliance with:

- EMC 2004/108/CE compatibility directive
- RoHS 2002/95/CE directive

Electrical installation requirements and Conformity certificate are available on our web site: [www.gefran.com](http://www.gefran.com)

**GEFRAN spa** reserved the right to make aesthetic or functional changes at any time and without notice.

**GEFRAN**

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