



Main features

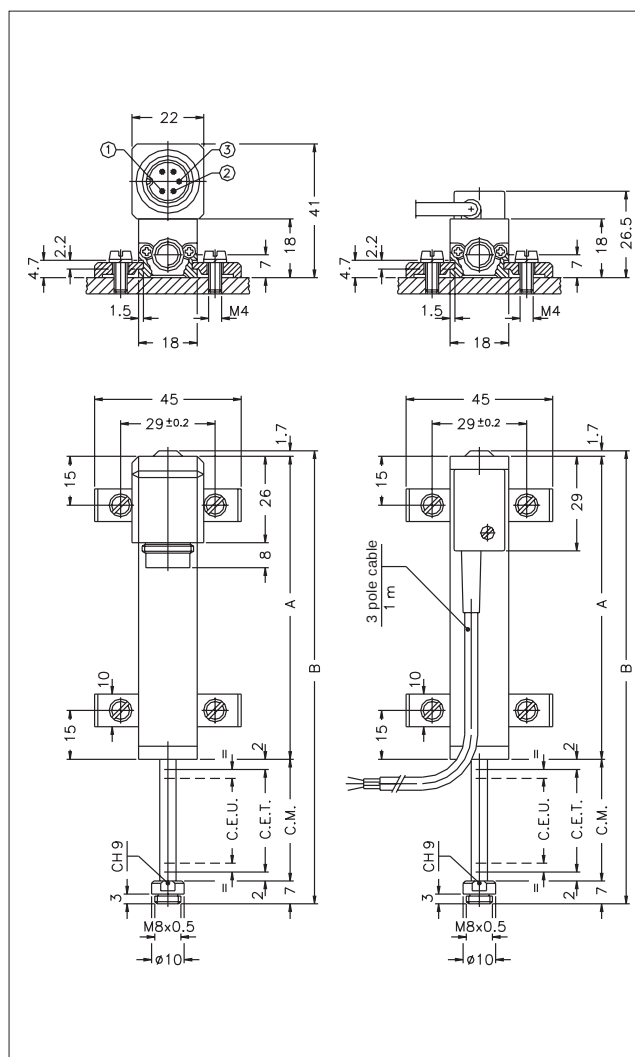
- 25 to 150 mm stroke.
- Mechanical linkage using joint with take up of play, M4 thread
- Independent linearity up to $\pm 0,05\%$
- Infinite resolution
- No variation of electrical signal outside theoretical electrical stroke
- Displacement speed up to 5 m/s
- Working temperature: $-30...+100^{\circ}\text{C}$
- Electrical connections:
PA1 F 3 wire 1 m. screened cable
PA1 C 5 pole connector 1 m. (DIN 43322)
- Life duration: $> 100 \times 10^6$ operations (within C.E.U.)
- Grade of protection IP40
- Suitable for use in explosive environments with presence of gas (groups IIA, IIB, IIC) and combustible powders.
Standards for simple device:
ATEX CEI EN 50020 2003 - paragraph 5.4 a

TECHNICAL DATA

Useful electrical stroke (C.E.U.)	25/50/75/100/125/150
Independent linearity (within C.E.U.)	see table
Displacement speed	≤ 5 m/s
Displacement force	≤ 1.2 N
Vibrations	5...2000Hz, $A_{max} = 0,75$ mm $a_{max} = 20$ g
Shock	50 g, 11ms.
Tolerance on resistance	$\pm 20\%$
Recommended cursor current	$< 0,1 \mu\text{A}$
Maximum cursor current	10mA
Maximum applicable voltage	see table
Electrical isolation	$> 100\text{M}\Omega$ at 500V~, 1bar, 2s
Dielectric strength	$< 100 \mu\text{A}$ at 500V~, 50Hz, 2s, 1bar
Dissipation at 40°C (0W at 120°C)	see table
Actual Temperature Coefficient of the output voltage	$< 1,5\text{ppm}/^{\circ}\text{C}$
Working temperature	$-30...+100^{\circ}\text{C}$
Storage temperature	$-50...+120^{\circ}\text{C}$
Case material	Anodised aluminium Nylon 66 G25
Control rod material	Stainless steel AISI 303
Fixing	Brackets with variable longitudinal axe

Important: all the data reported in the catalogue linearity, lifetime, temperature coefficient are valid for a sensor utilization as a ratiometric device with a max current across the cursor $I_c \leq 0.1 \mu\text{A}$.

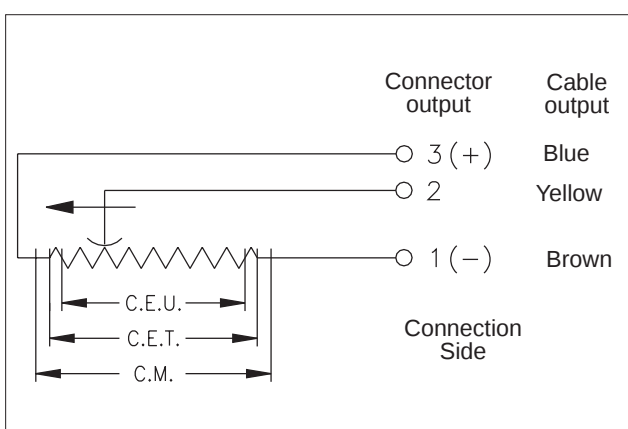
MECHANICAL DIMENSIONS



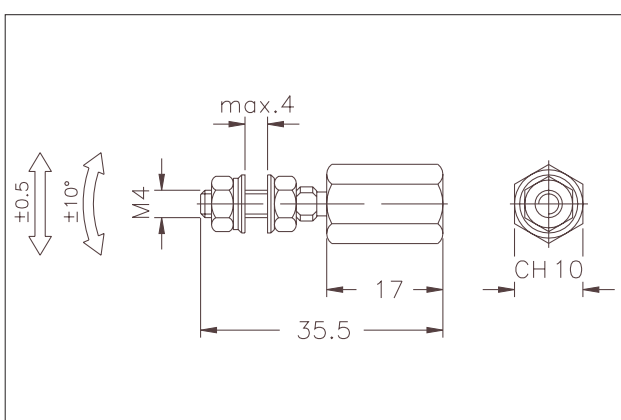
MECHANICAL / ELECTRICAL DATA

MODEL		25	50	75	100	125	150
Useful electrical stroke (C.E.U.) +1/-0	mm	25	50	75	100	125	150
Theoretical electrical stroke (C.E.T.) ±1	mm	C.E.U. +1					
Resistance (sulla C.E.T.)	kΩ	1	5	5	5	5	5
Independent linearity (within C.E.U.)	± %	0,2	0,1	0,1	0,1	0,05	0,05
Dissipation at 40°C (0W at 120°C)	W	0,6	1,2	1,8	2,5	3	3,6
Maximum applicable voltage	V	25	60				
Mechanical stroke (C.M.)	mm	C.E.U. +5					
Case length (A)	mm	C.E.U. +49,5					
Total length (B)	mm	113,2	163,2	213,2	263,2	313,2	363,2

ELECTRICAL CONNECTIONS



COUPLING JOINT



ACCESSORIES

STANDARD ACCESSORIES

Fixing kit for PA1:
4 brackets, M4x10 screws, grower

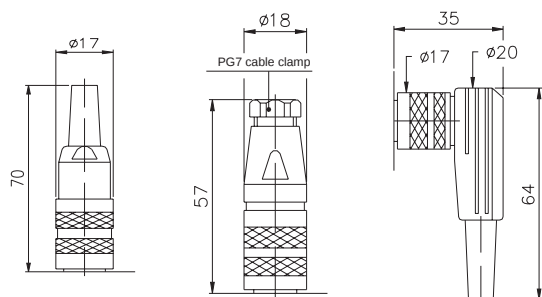
Code

PKIT005

Coupling joint

PKIT020

OPTIONAL ACCESSORIES



CON011- IP40 Prot.
(DIN43322 - 5 Pole
Female connector)

CON012 - IP67 Prot.
(DIN43322 - 5 Pole
Female connector)

CON013 - IP40 Prot.
(DIN43322 - 5 Pole
Female connector)

Extraction length of the connector 10mm

ORDER CODE

Displacement transducer

PA1

3 pole PVC cable output
3x0.25 1m

F

5 pole connector output
DIN 43322

C

Model

Cable output

S

Connector output

If requested, it is possible to supply models with non-standard mechanical and/or electrical features

Example: PA1 - C - 100

Displacement transducer model PA1, 5 pole connector output, useful electrical stroke (C.E.U.) 100mm

GEFRAN spa reserves the right to make any kind of design or functional modification at any moment without prior notice

GEFRAN

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