

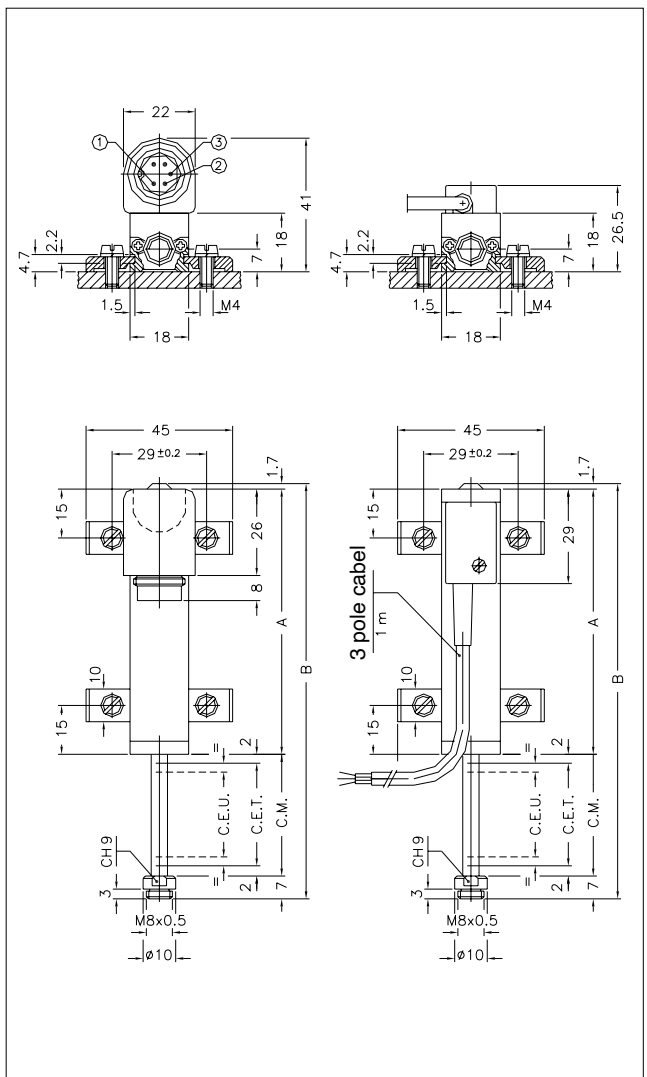
### Principal characteristics

- The transducer's compactness makes it suitable for installation in small spaces and for detecting small shifts.
- The joint with up-take of slack and M4 threading provides greater tolerances in movement.
- Installation is simplified by the lack of electrical signal variation at output outside theoretical electrical stroke.
- Ideal for small mechanical devices, valves, and test tools and benches.

### TECHNICAL DATA

Useful electrical stroke (C.E.U.)	from 25 to 175 mm (for intermediate strokes see table "Electrical / Mechanical Data")
Resolution	Infinite
Independent linearity (within C.E.U.)	see table
Displacement speed	$\leq 5$ m/s
Displacement force	$\leq 1.2$ N
Life	$>25 \times 10^6$ m strokes, or $100 \times 10^6$ operations, whichever is less (within C.E.U.)
Vibrations	5...2000Hz, $A_{max} = 0,75$ mm $a_{max} = 20$ g
Shock	50 g, 11ms.
Tolerance on resistance	$\pm 20\%$
Recommended cursor current	$< 0,1$ mA
Maximum cursor current	10mA
Maximum applicable voltage	see table
Electrical isolation	$>100M\Omega$ a 500V~, 1bar, 2s
Dielectric strength	$< 100$ mA a 500V~, 50Hz, 2s, 1bar
Dissipation at 40°C (0W at 120°C)	see table
Actual Temperature Coefficient of the output voltage	$< 1,5$ ppm/°C
Working temperature	-30...+100°C
Storage temperature	-50...+120°C
Case material	Anodised aluminium Nylon 66 G 25
Control rod material	Stainless steel AISI 303
Fixing	Brackets with variable longitudinal axe

### MECHANICAL DIMENSIONS

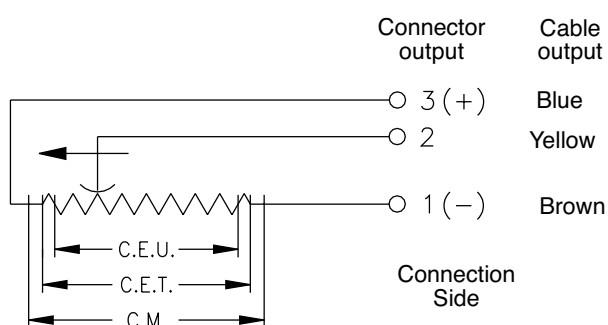


**Important:** all the data reported in the catalogue linearity, lifetime, temperature coefficient are valid for a sensor utilization as a ratiometric device with a max current across the cursor  $I_c \leq 0.1 \mu A$ .

## MECHANICAL / ELECTRICAL DATA

Model		25	50	75	100	125	150	175
Useful electrical stroke (C.E.U.) + 1 / -0	mm	25	50	75	100	125	150	175
Theoretical electrical stroke (C.E.T.) ± 1	mm	C.E.U. +1						
Resistance (on C.E.T.)	kΩ	1	5					
Independent linearity (within C.E.U.)	± %	0.2	0.1	0.1	0.07	0.05		
Dissipation at 40°C (0W at 120°C)	W	0.6	1.2	1.8	2.4	3	3.6	4.2
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	413.2

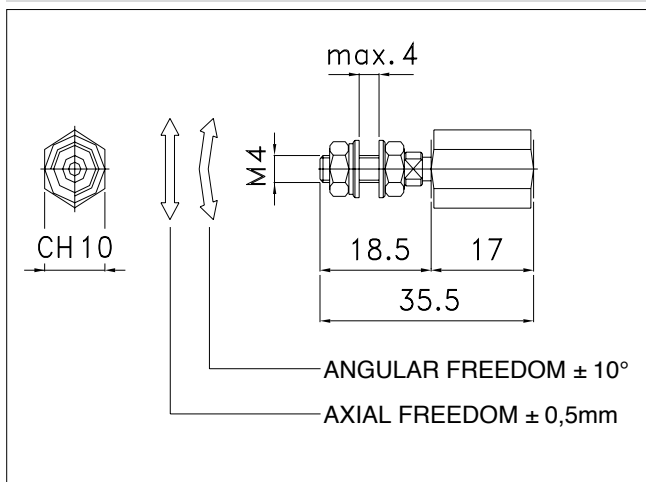
## ELECTRICAL CONNECTIONS



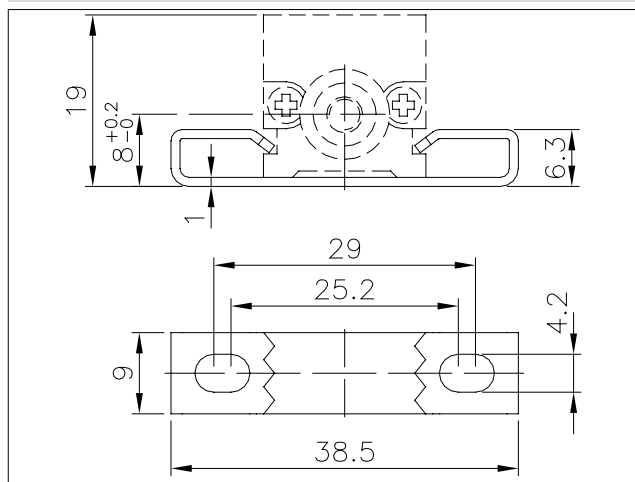
### INSTALLATION INSTRUCTIONS

- Respect the indicated electrical connections (DO NOT use the transducer as a variable resistance)
- When calibrating the transducer, be careful to set the stroke so that the output does not drop below 1% or rise beyond 99% of the supply voltage.

## COUPLING JOINT



## OPTIONAL FIXING KIT PKIT006



## ORDER CODE

Displacement transducer **PA1**

3 pole PVC cable output 3x0.25 1m.	<b>F</b>
5 pole connector output DIN 43322	<b>C</b>

Model

**S** **M**

Cable length  
(in meters)

This part of the code only applies to the model with cable output

No certificate attached	<b>0</b>
Linearity curve to be attached	<b>L</b>

Standard mounting brackets (PKIT005)	<b>X</b>
Optional mounting brackets (PKIT006)	<b>S</b>

Color of plastic heads (green)	<b>0</b>
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0 0 0 0 X 0 0 0 0 0 0

Ex.: **PA1 - C - 100**

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

## ACCESSORIES

### STANDARD ACCESSORIES

Fixing kit: 4 brackets, M4x10 screws, grower	<b>PKIT005</b>
Fixing kit: 2 "wraparound" brackets (0000X000S00 configurator option)	<b>PKIT006</b>
Coupling joint	<b>PKIT020</b>

### OPTIONAL ACCESSORIES

5-pin axial female PCB connector DIN43322 IP40 clamp for wire $\varnothing 4$ - $\varnothing 6$ mm	<b>CON011</b>
5-pin axial female PCB connector DIN43322 IP65 clamp PG7 for wire $\varnothing 4$ - $\varnothing 6$ mm	<b>CON012</b>
5-pin 90° radial female PCB connector DIN43322 IP40 clamp for wire $\varnothing 4$ - $\varnothing 6$ mm	<b>CON013</b>

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