



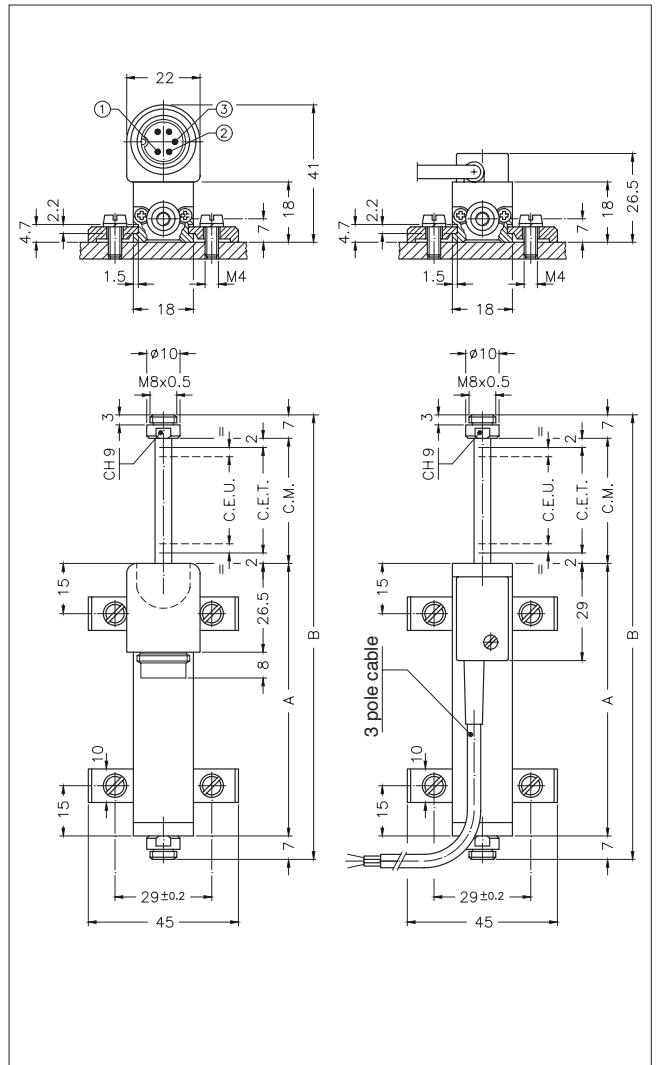
#### Principal characteristics

- The transducer's compactness makes it suitable for installation in small spaces and for detecting small shifts.
- The side connection creates a through-rod structure with double rod support, guaranteeing greater overall strength of the transducer.
- 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.)	25/50/75/100/150
Resolution	Infinite
Independent linearity (within C.E.U.)	see table
Displacement speed	≤ 10 m/s
Displacement force	≤ 0.30 N
Life	>25x10 <sup>6</sup> m strokes, or 100x10 <sup>6</sup> operations, whichever is less (within C.E.U.)
Vibrations	5...2000Hz, Amax =0,75 mm amax. = 20 g
Shock	50 g, 11ms.
Tolerance on resistance	± 20%
Recommended cursor current	< 0,1 μA
Maximum cursor current	10mA
Maximum applicable voltage	see table
Electrical isolation	>100MΩ a 500V=, 1bar, 2s
Dielectric strength	< 100 μA a 500V~, 50Hz, 2s, 1bar
Dissipation at 40°C (0W at 120°C)	see table
Actual Temperature Coefficient of the output voltage	< 1,5ppm/°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 axis

#### MECHANICAL DIMENSIONS

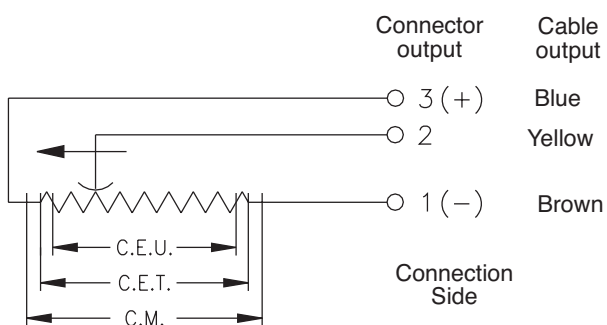


**Important:** all the data reported in the catalogue linearity, lifetime, temperature coefficient are valid for a sensor utilization as a ratiometric device with a max current across the cursor  $I_c \leq 0.1 \mu A$ .

## MECHANICAL / ELECTRICAL DATA

Model		25	50	75	100	150
Useful electrical stroke (C.E.U.) +3/-0	mm	25	50	75	100	150
Theoretical electrical stroke (C.E.T.) ±1	mm	C.E.U. +1				
Resistance (C.E.T.)	kΩ	1	5	5	5	5
Independent linearity (within C.E.U.)	± %	0.2	0.1	0.1	0.1	0.05
Dissipation at 40° (0W at 120°C)	W	0.6	1.2	1.8	2.5	3.6
Maximum applicable voltage	V	25	60			
Mechanical stroke (C.M.)	mm	C.E.U. + 5				
Case length (A)	mm	C.E.U. + 38				
Total length (B)	mm	107	157	207	257	357

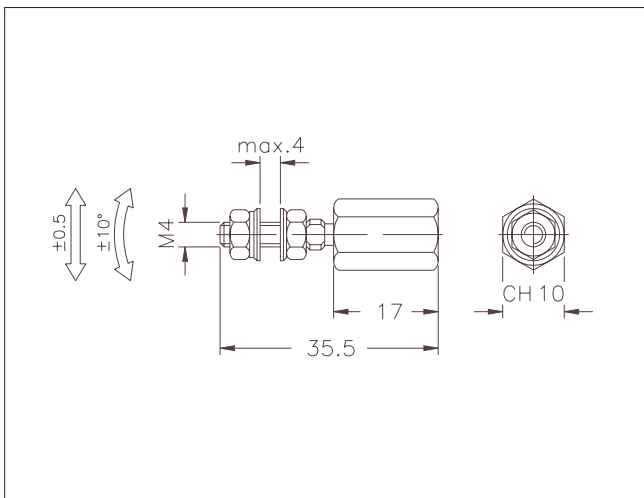
## ELECTRICAL CONNECTIONS



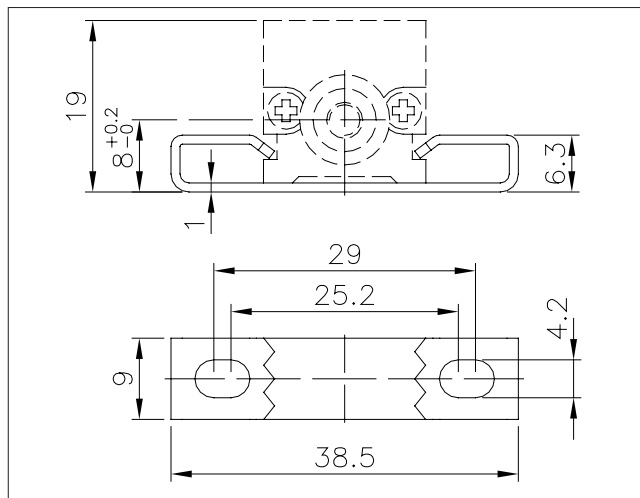
### INSTALLATION INSTRUCTIONS

- 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 **PY1**

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>
Color of plastic heads (black)	<b>N</b>

Ex.: **PY1 - C - 100**

Displacement transducer model PY1, 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