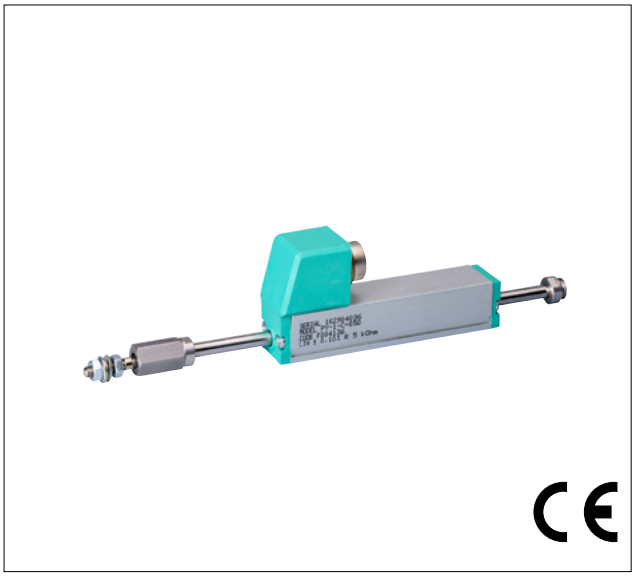
GEFRAN

PY1

RECTILINEAR DISPLACEMENT TRANSDUCER



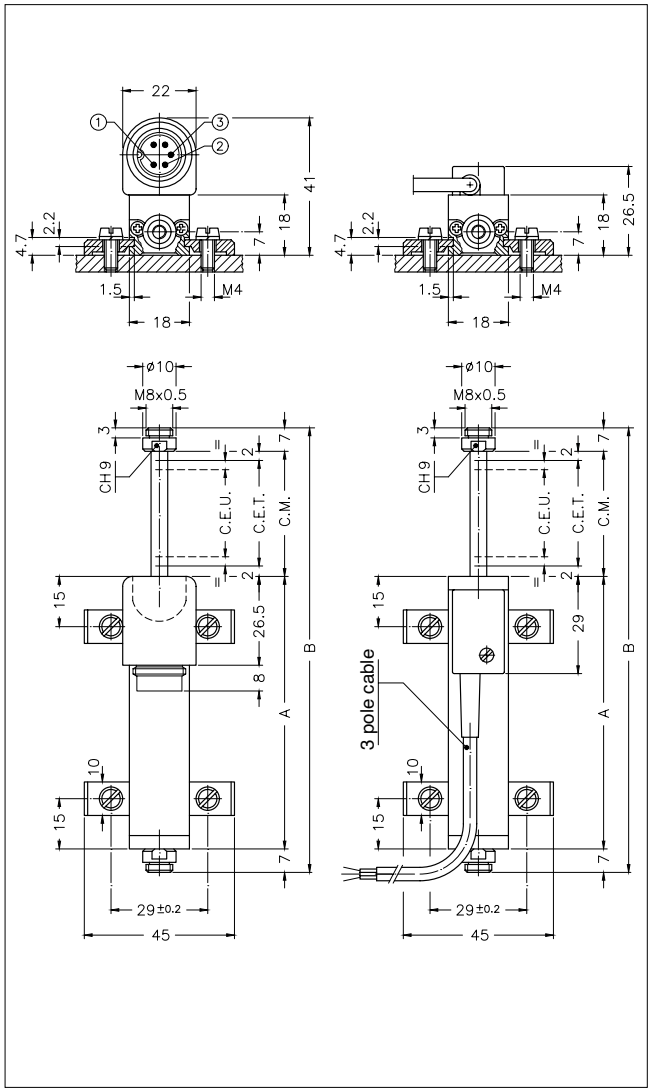
Principal characteristics

- *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.)	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	≤ 10 m/s
Displacement force	≤ 0.30 N
Protection level	IP40
Life	>25x10⁶m strokes,or 100x10⁶ 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

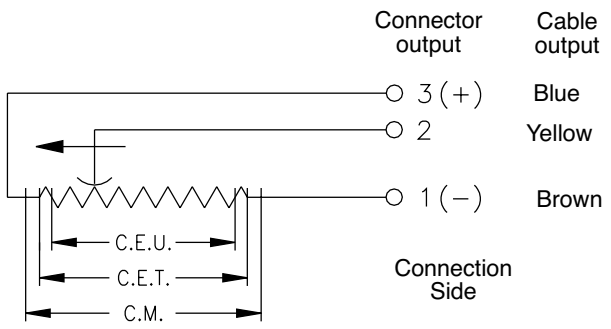


Important: all the data reported in the catalogue linearity, lifetime, temperature coefficient are valid for a sensor utilization as a ratiometric device with a max current across the cursor Ic ≤ 0.1 µA.

MECHANICAL / ELECTRICAL DATA

Model		25	50	75	100	125	150	175
Useful electrical stroke (C.E.U.) +3/-0	mm	25	50	75	100	125	150	175
Theoretical electrical stroke (C.E.T.) ±1	mm	C.E.U. +1						
Resistance (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° (0W at 120°C)	W	0.6	1.2	1.8	2.5	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. + 38						
Total length (B)	mm	107	157	207	257	307	357	407

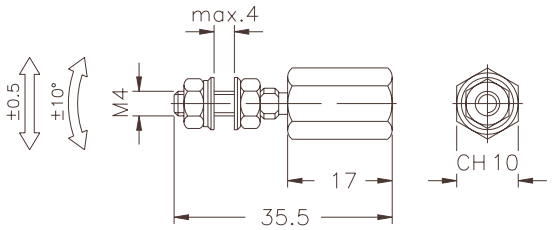
ELECTRICAL CONNECTIONS



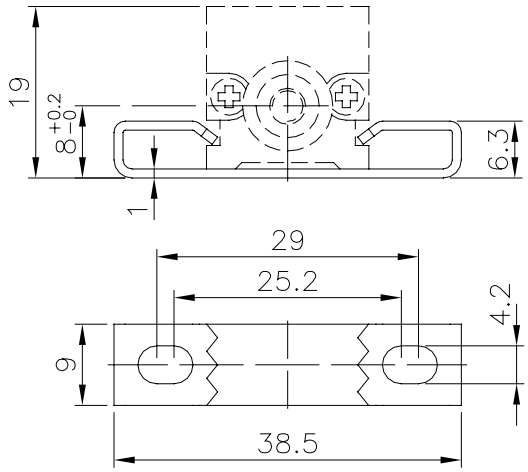
INSTALLATION INSTRUCTIONS

- 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.	**F**
5 pole connector output DIN 43322	**C**

Model

S ☐ M

Cable length (in meters)

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

☐ 0 0 0 X 0 0 0 ☐ 0 0

No certificate attached	**0**
Linearity curve to be attached	**L**
Standard mounting brackets (PKIT005)	**X**
Optional mounting brackets (PKIT006)	**S**
Color of plastic heads (green)	**0**

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	**PKIT005**
Fixing kit: 2 “wraparound” brackets (0000X000S00 configurator option)	**PKIT006**
Coupling joint	**PKIT020**
OPTIONAL ACCESSORIES	
5-pin axial female PCB connector DIN43322 IP40 clamp for wire ø4 - ø6 mm	**CON011**
5-pin axial female PCB connector DIN43322 IP65 clamp PG7 for wire ø4 - ø6 mm	**CON012**
5-pin 90° radial female PCB connector DIN43322 IP40 clamp for wire ø4 - ø6 mm	**CON013**

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