## **GEFRAN**

### PY2

# RECTILINEAR DISPLACEMENT TRANSDUCER WITH BALL TIP



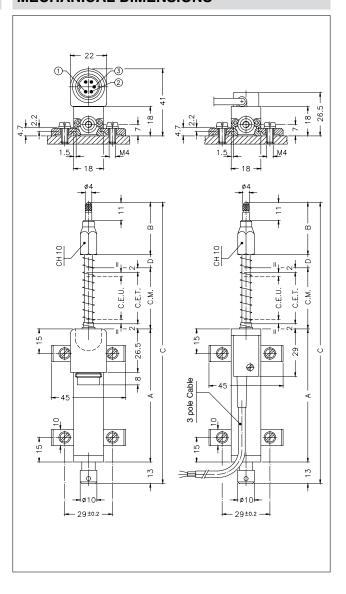
#### Principal characteristics

- The side connection creates a through-rod structure with double rod support, guaranteeing greater overall strength of the transducer.
- The return spring automatically returns the rod to zero position, making the transducer suitable for comparator applications.
- The tip with stainless steel ball is suitable for applications where the object to be measured is not subject to shifts transverse to the transducer axle.
- Ideal for checking the flatness or thickness of panels of various materials. Can also be used for valves or mechanical parts when the rod cannot be attached to the moving object.

#### **TECHNICAL DATA**

Useful electrical stroke (C.E.U.)	from 10 to 150 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	≤ 4 N
Protection level	IP40
Life	>25x10°m strokes,or 100x10° operations, whichever is less (within C.E.U.)
Vibrations	52000Hz, Amax =0,75 mm amax. = 20 g
Shock	50 g, 11ms.
Tolerance on resistance	± 20%
Recommended cursor current	< 0,1 μΑ
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**

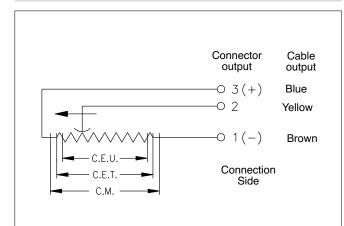


Important: all the data reported in the catalogue linearity, lifetime, temperature coefficient are valid for a sensor utilization as a ratiometric device with a max current across the cursor Ic  $\leq$  0.1  $\mu$ A.

#### **MECHANICAL / ELECTRICAL DATA**

Model		10	25	50	75	100	125	150
Useful electrical stroke (C.E.U.) +1/-0	mm	10	25	50	76	101	126	151
Theoretical electrical stroke (C.E.T.) ±1	mm	C	C.E.U. +	-1 76 101 CEU +1			J +1	
Resistance (C.E.T.)	kΩ	1	1	5				
Independent linearity (within C.E.U.)	± %	0.3	0.2	0.1 0.07 0.05			05	
Dissipation at 40° (0W at 120°C)	W	0.2	0.6	1.2	1.8	2.4	3	3.6
Maximum applicable voltage	V	14	14 25 60					
Mechanical stroke (C.M.)	mm	C.E.U. + 5						
Case length (A)	mm	C.E.U. + 38						
Tip length (B)	mm	32 40						
Total length (C)	mm	108	138	196	251	307	364	427
Quote (D)	mm	-	-	-	5	11	18	31

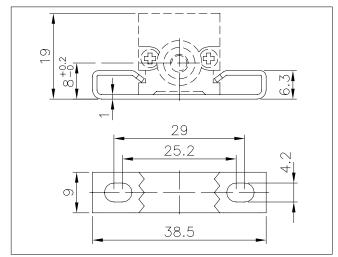
#### **ELECTRICAL CONNECTIONS**



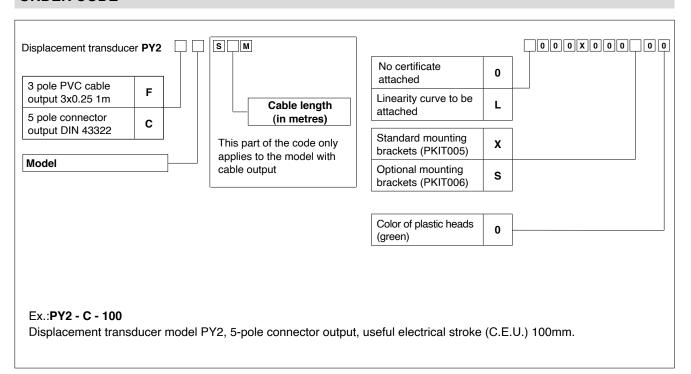
#### **INSTALLATION INSTRUCTIONS**

- 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.

#### **OPTIONAL FIXING KIT PKIT006**



#### **ORDER CODE**



#### **ACCESSORIES**

STANDARD ACCESSORIES	
Fixing kit: 4 brackets, M4x10 screws, washer	PKIT005
Fixing kit: 2 "wraparound" brackets (0000X000S00 configurator option)	PKIT006
Tip with bal	PTAS000
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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## **GEFRAN**

### PY2

# RECTILINEAR DISPLACEMENT TRANSDUCER WITH BALL TIP



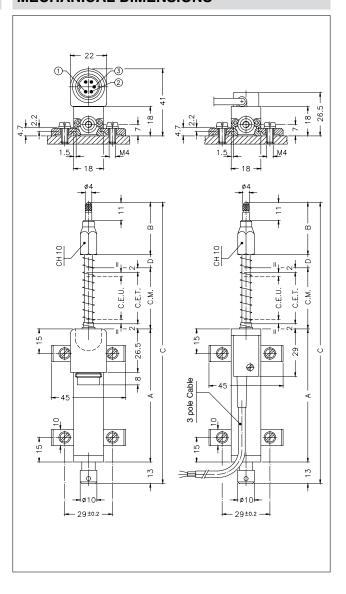
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Displacement force	≤ 4 N
Protection level	IP40
Life	>25x10°m strokes,or 100x10° operations, whichever is less (within C.E.U.)
Vibrations	52000Hz, Amax =0,75 mm amax. = 20 g
Shock	50 g, 11ms.
Tolerance on resistance	± 20%
Recommended cursor current	< 0,1 μΑ
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**

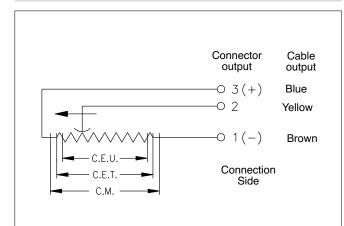


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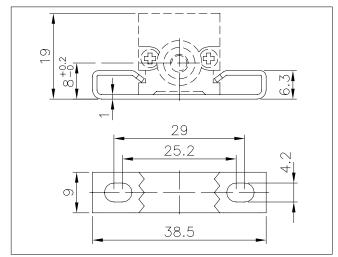
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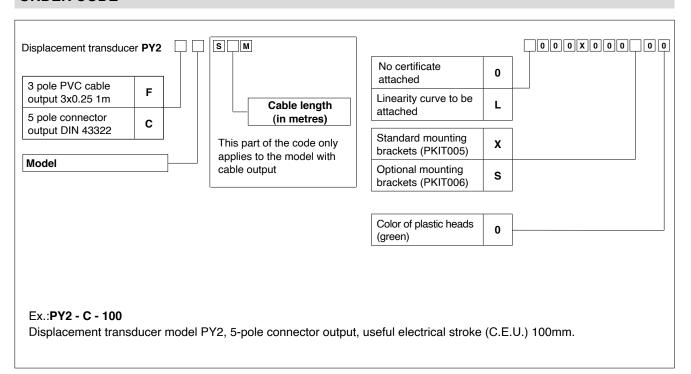
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#### **OPTIONAL FIXING KIT PKIT006**



#### **ORDER CODE**



#### **ACCESSORIES**

STANDARD ACCESSORIES	
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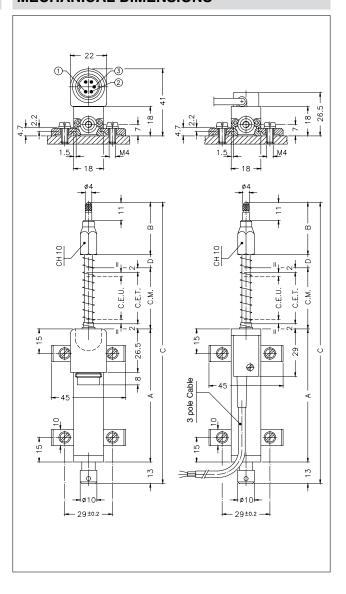
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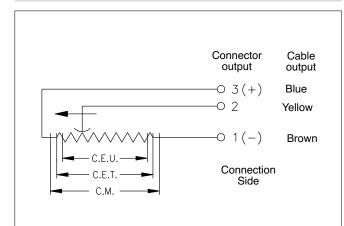


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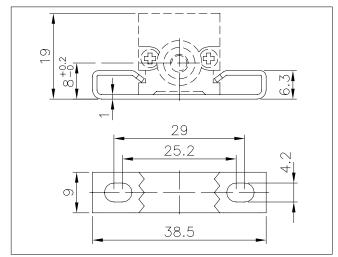
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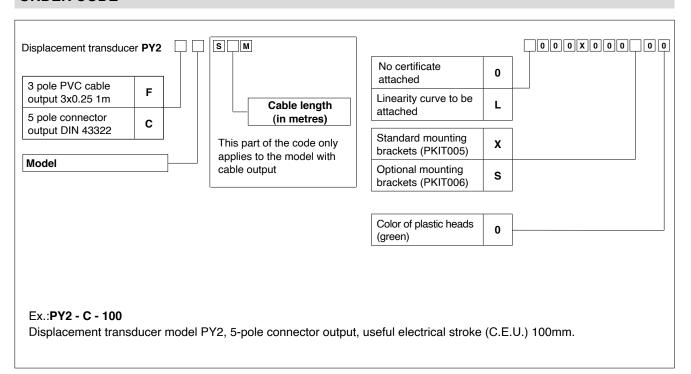
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