GEFRAN

PY1

RECTILINEAR DISPLACEMENT TRANSDUCER

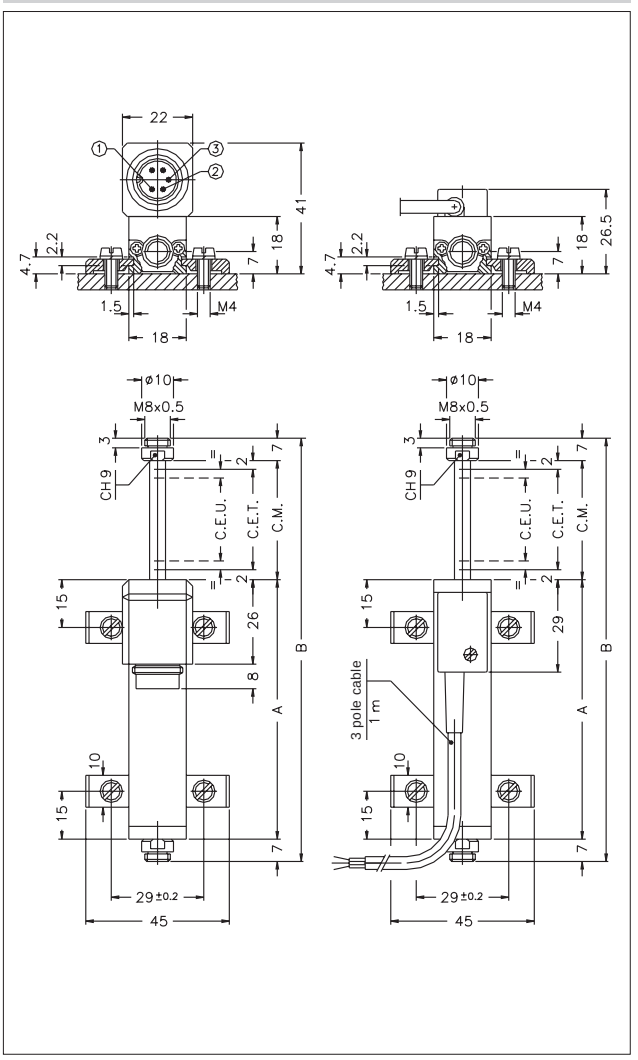
Principali caratteristiche

- *25 to 150 mm. stroke*
- *Mechanical linkage using joint with take up of play, M4 thread*
- *Independent linearity up to ± 0,05%*
- *Infinite resolution*
- *No variation of electrical signal outside theoretical electrical stroke*
- *Displacement speed up to 10 m/s*
- *Working temperature: -30...+100°C*
- *Electrical connections:*
  PY1 F 3 wire 1m screened cable
  PY1 C 5-pole connectors DIN43322
- *Life duration: > 100x10⁶ operations (within C.E.U.)*
- *Double support of the control rod*
- *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.)	25/50/75/100/150
Independent linearity (within C.E.U.)	see table
Displacement speed	≤ 10 m/s
Displacement force	≤ 0.30N
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 at 500V=, 1bar, 2s
Dielectric strength	< 100 µA at 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 G25
Control rod material	Stainless steel AISI 303
Fixing	Brackets with variable longitudinal axis

MECHANICAL DIMENSIONS

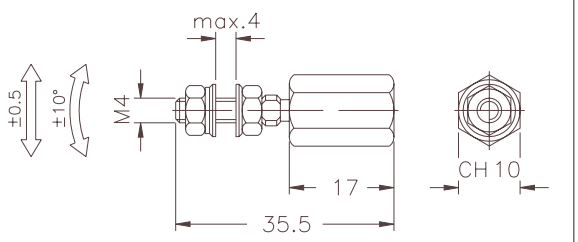


Important: all the data reported in the catalogue linearity, lifetime, temperature coefficient are valid for a sensor utilization as a ratiometric device with a max current across the cursor Ic ≤ 0.1 µA.

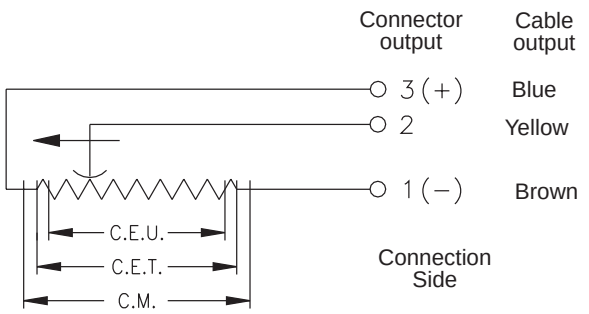
MECHANICAL / ELECTRICAL DATA

MODEL		25	50	75	100	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

COUPLING JOINT



ELECTRICAL CONNECTIONS



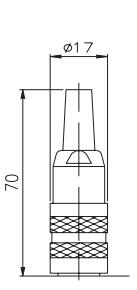
ACCESSORIES

STANDARD ACCESSORIES **Code**

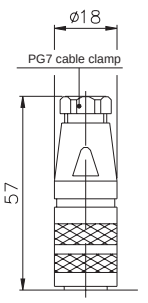
Fixing kit for PY1
4 brackets, M4x10 screws, grower **PKIT005**

Coupling joint **PKIT020**

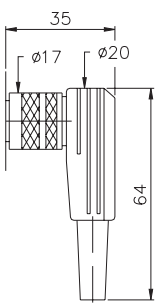
OPTIONAL ACCESSORIES



CON011 - IP40 Prot.
(5 pole Female conn.)



CON012 - IP67 Prot.
(5 pole Female conn.)



CON013 - IP40 Prot.
(5 pole Female conn.)

Extraction length of the connector 10mm.

ORDER CODE

Displacement transducer **PY1** □ □ □ □

Cable output	**F**
Connector output DIN43322	**C**

Model

3-pole PVC cable output 3x0,25 1meter	**S**
Connector output	**----**

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

Example:**PY1 - C - 100**
Displacement transducer model PY1, 5-pole connector output, useful electrical stroke (C.E.U.) 100mm.

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