

IC

RECTILINEAR DISPLACEMENT TRANSDUCER FOR MOUNTING INSIDE HYDRAULIC ACTUATORS



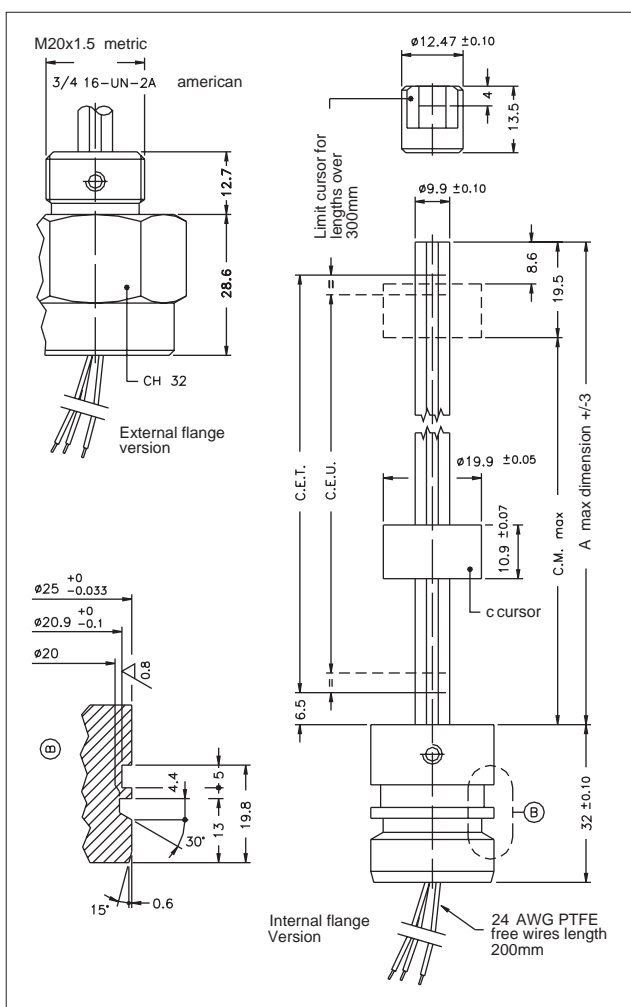
Main features

- 100 to 550 mm stroke
- Mechanical fixing by internal or external flange
- Independent linearity $\pm 0,1\%$
- Infinite resolution
- Repeatability 0,01 mm.
- No variation of electrical signal outside theoretical electrical stroke
- Displacement speed up to 1,5 m/s
- Working temperature: $-30...+100^{\circ}\text{C}$
- Electrical connections:
IC C 6-pole connector
IC F 3 free wires (200 mm length).
- Life duration: $> 25 \times 10^6$ meters or $> 100 \times 10^6$ operations, whichever is the smaller (within C.E.U.)
- Max. operating pressure 340 bar (5000 psi)

TECHNICAL DATA

Model	100/150/200/300/350/500/550
Independent linearity (within C.E.U.)	$\pm 0,1\%$
Vibrations	5...2000Hz, $A_{max} = 0,75$ mm $a_{max} = 20$ g
Shock	50 g, 11ms.
Tolerance on resistance	$\pm 20\%$
Recommended cursor current	$< 0,1\mu\text{A}$
Maximum cursor current	10 mA
Dissipation at 40°C (0W at 120°C)	3W
Maximum applicable voltage	60 V
Temperature Coefficient of the resistance	-200 ± 200 ppm/ $^{\circ}\text{C}$
Actual Temperature Coefficient of the output voltage	$< 1,5$ ppm/ $^{\circ}\text{C}$
Electrical isolation	$> 100\text{M}\Omega$ at 500V=, 1bar, 2s
Dielectric strength	$< 100\mu\text{A}$ at 500V~, 50Hz, 2s, 1bar
Working temperature	$-30...+100^{\circ}\text{C}$
Storage temperature	$-50...+120^{\circ}\text{C}$
Displacement speed	≤ 1.5 m/s
Displacement force	≤ 1 N
Stem material	Anodised aluminium
Flange material	Stainless steel AISI 303
Fixing	Internal or external flange

MECHANICAL DIMENSIONS

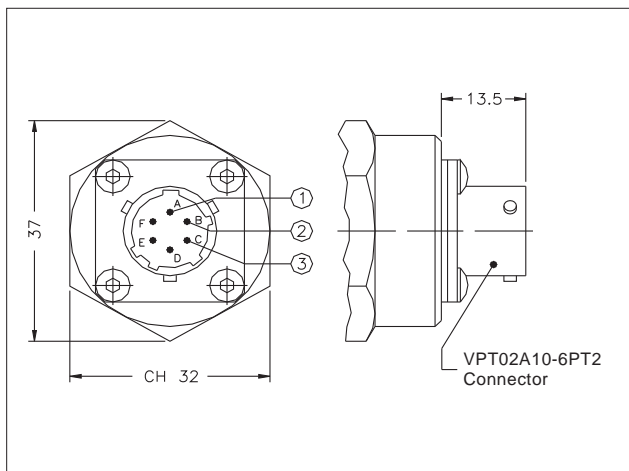


Important: all the data reported in the catalogue linearity, lifetime, temperature coefficient are valid for a sensor utilization as a ratiometric device with a max current across the cursor $I_c \leq 0.1 \mu\text{A}$.

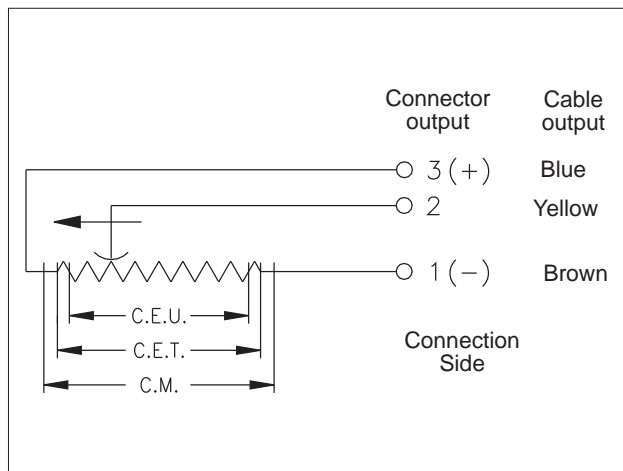
MECHANICAL / ELECTRICAL DATA

MODEL		100	150	200	300	350	500	550
Useful electrical stroke (C.E.U.) ± 1	mm	MODEL + 4						
Theoretical electrical stroke (C.E.T.) ± 1	mm	MODEL + 10						
Resistance (C.E.T.)	kΩ	10						
Mechanical stroke (C.M.) ± 1	mm	MODEL + 4						
Maximum length (A)	mm	123,5	173,5	223,5	323,5	373,5	523,5	573,5

EXT. FLANGE VERSION / CONNECTOR



ELECTRICAL CONNECTIONS



OPTIONAL ACCESSORIES

IC application manual **Code DOC 020**

Connectors
Only for external flange version

CON300
(6 pole Female connector)

ORDER CODE

Displacement transducer **IC**

3 free wires 200mm length output	F
Connector output (only for ext. flange version)	C

MODEL

Int. flange version	I
Ext. flange version	E

Thread	
Internal flange	---
External flange	Metric M
	American I

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

Example: IC - F - 300 - E - M
Displacement transducer model IC, 3 free wires 200mm. length output, external flange, metric thread and useful electrical stroke (C.E.U.) 304mm.

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



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cod. 84887-10/00