GEFRAN

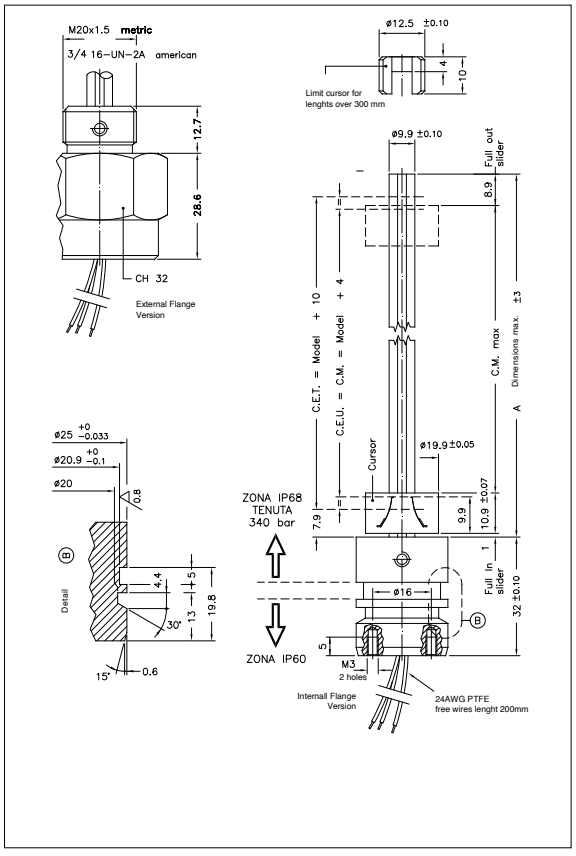
IC

RECTILINEAR DISPLACEMENT TRANSDUCER FOR MOUNTING INSIDE HYDRAULIC ACTUATORS

Principal characteristics

- *Transducer with exposed tracks, allowing rod diameter is reduced to be reduced to a minimum to permit installation in small cylinders.*
- *Thanks to a special constructive technique, the IC transducer provides high resistance to the working pressures of oil-pressure cylinders (max 340 bar)*
- *Available with internal flanges or external threads to guarantee mechanical compatibility with all principal cylinder types.*

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.

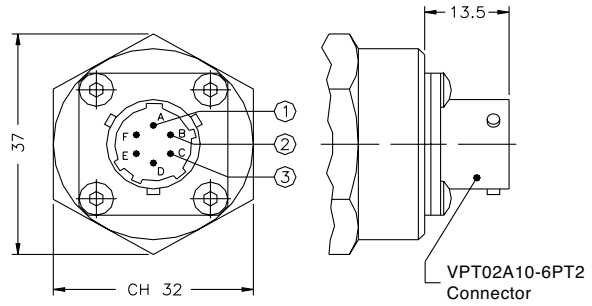
TECHNICAL DATA

Model
from 100 to 700 mm (for intermediate strokes see table “Electrical / Mechanical Data”)
Resolution
infinite
Repeatibility
0,01mm
Independent linearity (within C.E.U.)
± 0,1%
Life
> 25x10⁶ m strokes, or 100x106 maneuvers, whichever is less (within C.E.U.)
Displacement speed
<= 5 ppm/°C
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
Dissipation at 40°C (0W at 120°C)
3W
Max. applicable voltage
60V
Actual Temperature coefficient of the output voltage
<= 5 ppm/°C
Electrical isolation
>100MΩ a 500V=, 1bar, 2s
Dielectric strength
< 100μA a 500V~, 50Hz, 2s, 1bar
Working temperature
-30...+100°C
Storage temperature
-50...+120°C
Displacement speed
<= 5 ppm/°C
Displacement force
≤ 1 N
Rod material
Anodised aluminium
Flange material
Stainless steel AISI 303
Fixing
Internal or external flange

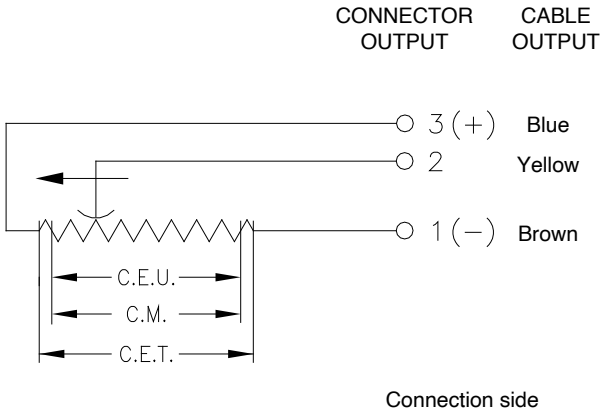
ELECTRICAL / MECHANICAL DATA

MODEL		100	150	200	250	300	350	400	500	550	700
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	124,8	174,8	224,8	274,8	324,8	374,8	424,8	524,8	574,8	724,8

EXT. FLANGE VERSION / CONNECTOR



ELECTRICAL CONNECTIONS



Connection side

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 ACCESSORIES

	Code
6 pole Female connector	**CON300**

ORDER CODE

Displacement transducer **IC** □ □ □ □ □ — □ **M**

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

MODEL

Internal flange version	**I**
External flange version	**E**

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

Cable length (10 cm)

This part of the code only applies to the model with 3 wires output IC-F

0 0 0 0 X 0 0 0 X 0 0

Ex.: **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.) 300mm.

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

GEFRAN spa
via Sebina, 74
25050 PROVAGLIO D'ISEO (BS) - ITALIA
tel. 0309888.1 - fax. 0309839063
Internet: http://www.gefran.com