

# RECTILINEAR DISPLACEMENT TRANSDUCER FOR MOUNTING INSIDE HYDRAULIC ACTUATORS



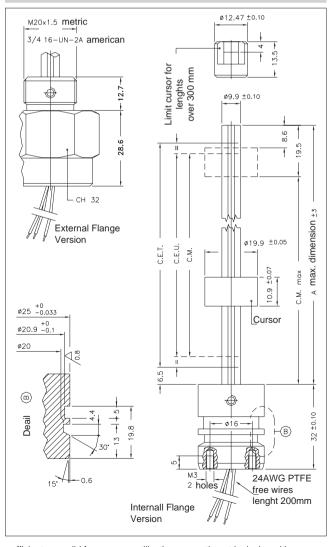
#### Principal characteristics

- 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.

# **TECHNICAL DATA**

| Model                     | 100/150/200/300/350/500/550        |
|---------------------------|------------------------------------|
| Resolution                | infinite                           |
| Repeatibility             | 0,01mm                             |
| Independent linearity     | ± 0,1%                             |
| (within C.E.U.)           |                                    |
| Life                      | >25x10°m strokes, or               |
|                           | 100x106 maneuvers, whichever       |
|                           | is less (within C.E.U.)            |
| Displacement speed        | Standard ≤ 1,5m/s                  |
| Vibrations                | 52000Hz, Amax =0,75 mm             |
|                           | amax. = 20 g                       |
| Shock                     | 50 g, 11ms.                        |
| Tolerance on resistance   | ± 20%                              |
| Recommended               | < 0,1μA                            |
| cursor current            |                                    |
| Maximum cursor current    | 10 mA                              |
| Dissipation at 40°C       | 3W                                 |
| (0W at 120°C)             |                                    |
| Max. applicable voltage   | 60 V                               |
| Actual Temperature coeff. | < 1,5 ppm/°C                       |
| of the output voltage     |                                    |
| Electrical isolation      | > 100M $\Omega$ at 500V=, 1bar, 2s |
| Dielectric strength       | < 100μA at 500V~, 50Hz, 2s, 1bar   |
| Working temperature       | -30+100°C                          |
| Storage temperature       | -50+120°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**

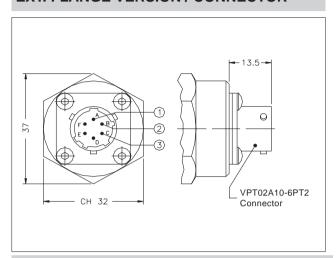


Important: all the data reported in the catalogue linearity, lifetime, temperature coefficient are valid for a sensor utilization as a ratiometric device with a max current across the cursor Ic  $\leq$  0.1  $\mu$ A.

### **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 |  |  |  |

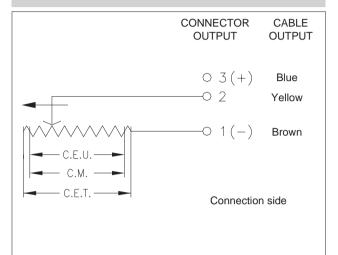
#### **EXT. FLANGE VERSION / CONNECTOR**



#### **OPTIONAL ACCESSORIES**

Code
6 pole Female connector CON300

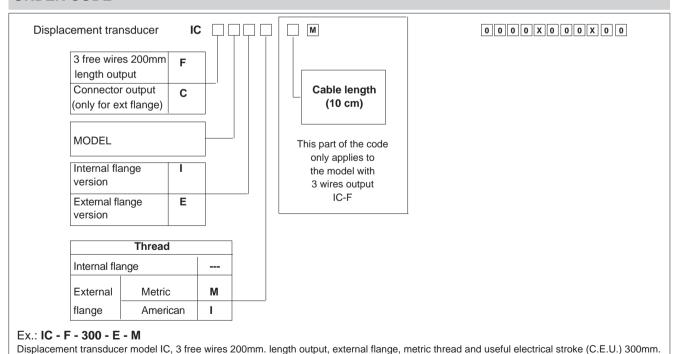
#### **ELECTRICAL CONNECTIONS**



#### 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.

# **ORDER CODE**



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

**GEFRAN** spa



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