



Main features

- Galvanic isolation between the Supply Voltage and the Amplifier >500Vdc
- Linearity error > 0,02% full scale output
- Current output 3-wires
- Low thermal drift < 0,01% full scale/°C
- 10Vdc transducer supply

The CIR-D voltage or current amplifiers have been designed to enable the user to adapt non-amplified strain gauge transducers (load cells, pressure transducers) to acquisition systems, PLC, instrumentation with high level inputs. These amplifiers have galvanic isolation between the supply voltage and the transducer to increase the rejection of noise generated by the power supply itself. The availability of the output in current enables the signal to be carried over long distances or used in intelligent automation systems.

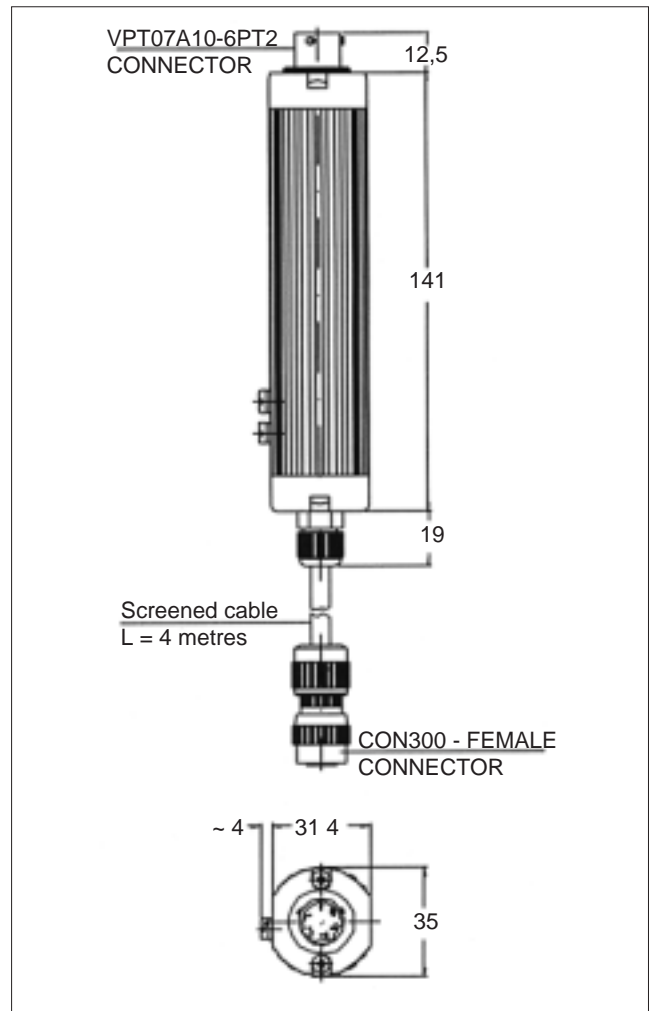
TECHNICAL SPECIFICATIONS

Linearity error	< 0.02%FSO
Galvanic isolation between Vsupply and Amplifier	> 500 Vdc
Primary sensor sensitivity	1 or 2mV/V
Primary sensor resistance	350Ω
Output load resistance	≤ 400Ω
Supply voltage	20...30Vdc
Current drain with sensor connected	< 70mA
Supply voltage to transducer	10Vdc
Output signal at zero	0mA
Zero signal accuracy	± 0,1%FSO
Zero adjustment	± 10%FSO
Full scale output	20mA
Full scale output accuracy	± 0,1%FSO
Span adjustment	± 10%FSO
Inverse polarity protection	Yes
Response time (10...90%FSO)	8ms
Output noise (RMS 10...400Hz)	0.05%FSO
Temperature range: Compensated Working Storage	0...70°C -10...+80°C -50...+100°C
Typical thermal drift of zero	± 0.01%FSO/°C
Typical thermal drift of span	± 0.01%FSO/°C
Case material	Anodised aluminium Nylon 66 CF40
Protection degree	IP65 - EN60529

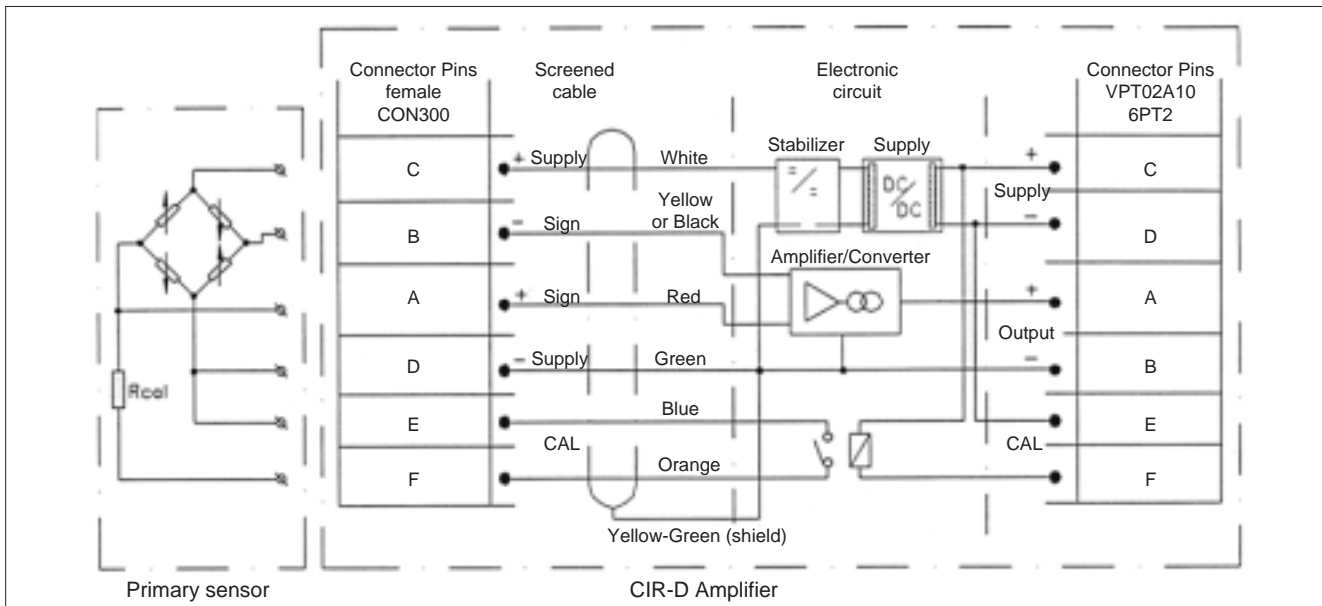
FSO: Full Scale Output (signal at full span).

The electrical characteristics are those measured with Vsupply = 24V - RL = 400 Ohm - Ambient temperature. = 25°C

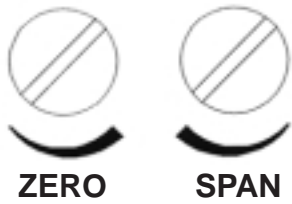
MECHANICAL DIMENSIONS



ELECTRICAL CONNECTIONS



ADJUSTMENTS



ZERO and SPAN POTENTIOMETERS

The user can adjust the amplifier zero and gain using two potentiometers (ZERO and SPAN respectively) which are easily accessible from the outside by removing two screws present on the case.

OPTIONAL ACCESSORIES

Connectors

Female cable connector
Grade of protection IP65 **CON 300**

6-pin connector with 8m (25ft) cable **C08W**
6-pin connector with 15m (50ft) cable **C15W**
6-pin connector with 25m (75ft) cable **C25W**
6-pin connector with 30m (100ft) cable **C30W**

Other lengths **consult factory**

Cables and assembled cables **on request**

ORDER CODE

CIR-D **XC001**

INPUT SIGNAL	
1mV/V	1
2mV/V	2

Example: **CIR-D-1**

Strain gauge amplifier with 1 mV/V input signal.

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