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MODEL CL-72U3 TRANSDUCER BRIDGE AMPLIFIER

FEATURES:

- High Precision
- Rigid Design
- Powered by 24 VDC
- Operating Temperature Range -40
 to +85 °C
- 3-Lead wire Cable





Mod. CL-72U3 Transducer Bridge Amplifier is available in two different versions, either as an integrated part in the transducer itself, or as a stand-alone version for connecting transducers or full bridge strain gauge circuits. The instrument is particularly suitable for severe climatic or mechanical conditions in industrial environments including situations where efficient protection is required against dust, vibrations, and high humidity.



All these features together with its voltage signal output renders Mod. CL-72U3 an ideal bridge amplifier for strain gauge based transducers like load cells in uni-directional loading (tension or compression), pressure transducers and the like. The bridge amplifier accepts input impedances of 120 Ω up to 1200 Ω .

|--|

| | | Min | Тур | Max |
|--|-----------------------------------|-------------|-------------|-------|
| Operating | temperature* in °C | -40 | - | +85 |
| Signal cabl | le length in m | - | - | 3 |
| Signal ban | d with in Hz | DC | 40 ** | 1000 |
| Bridge exc | itation in V | - | 5 | - |
| Bridge resi | stance in Ω | 120 | 350 | 1200 |
| Input sensi | tivity in mV/V | 0,5 | 2 | 100 |
| Non-lineari | ty in %FS | - | - | 0,02 |
| Temperature coefficient of gain in % FS/°C | | - | 0,001 | 0,005 |
| Temperatu | re coefficient of zero in % FS/°C | - | 0,001 | 0,002 |
| Gain adjus | tment in % FS | - | Factory-set | ± 4 |
| Zero adjustment in % FS | | - | Factory-set | ± 5 |
| Input | - Туре | symmetrisch | | |
| | - Resistance in GΩ | 1 | - | - |
| Output | - Туре | symmetrisch | - | - |
| | - Voltage in V | - 10 | - | +10 |
| | - Impedance in Ω | 10 | - | - |
| | - max. permissible current in mA | - | - | 18 |
| Supply | - Voltage in V | +19 | +24 | +32 |
| | - Current in mA | 24 | - | 60 |
| | - Cable length in m | - | - | 3 |
| | | | | |

** Factory settings

CONNECTION DIAGRAM:



| | Conne | ction for the transducer | Connection for Excitation and Signal-Output | |
|--------|-------|----------------------------------|---|-------------------|
| white | -Z | Excitation of the transducer 5 V | white | GND |
| brown | -S | Signal | yellow | +24V |
| green | +S | Signal | green | Output U (± 10 V) |
| yellow | +Z | Excitation of the transducer 5 V | black | Shield |
| black | | Shield | | |

ORDERING OPTIONS:

| CL-72U3-U _{Out} | Output voltage | Designation | Model |
|--------------------------|----------------|-------------|--|
| 10 | ± 10 V | х | IP00 - Electronics board for integration into transducer |
| 5 | ± 5 V | 0 | IP66 – Metal housing PG7* |
| 2 | ± 2 V | D | IP66 – Metal housing EMC M12* |
| 1 | ± 1 V | М | IP68 – Metal housing CVG M12* |

* Housing versions see the next page

| Ordering examples | |
|-------------------|---|
| CL-72U3-U1-X | Version in the sensor integrated with \pm 1 V output |
| CL-72U3-U2-O | Version in metal housing PG7 with \pm 2 V output |
| CL-72U3-U5-D | Version in metal housing EMC M12 with \pm 5 V output |
| CL-72U3-U10-M | Version in metal housing CVG M12 with \pm 10 V output |
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HOUSING OPTIONS:

