Rail mounted
# temperature transducer

LXT - 811 - S

Features

- All parameters programmable.
- Resistace input - Pt100, Ni100, Cu100, Pt1000, Ω, potentiometer.
- Voltage input - B, J, K, N, R, S, mV
- Current output 4...20mA (current loop).
- Galvanic separation input/output.
- Sensor break signalization.
- All sensors linearization.
- High reliability and accuracy.
- Single or dual independent channels.
- Detachable, fast and reliable wire connectors.
- Slim, rail and fast click mounted housing.
- Special versions on request.

3 years warranty

CE

Description

The LXT-811-S transducer converts temperature from an input sensor to the output current signal 4...20mA.
A device works as a current loop regulator with galvanic separation between an input sensor and the output.
The LXT-811-S is self powered from the current loop.
A device assures cold junction compensation (if thermocouple is connected as input signal) or it makes input wire resitance compensation (if resistive element is connected).
LXTconfig software is dedicated for setting sensor type, measurment range, sensor break signalization, fine calibration and it allows to define custom sensor characteristic.
There is possibility to deliver device for non-standard signals on demand.

Dimm. / Connect.

Programming
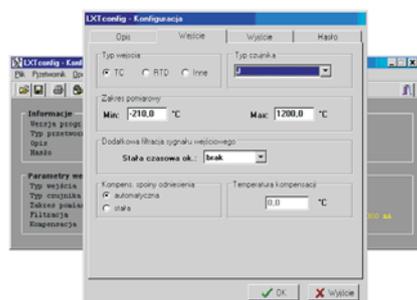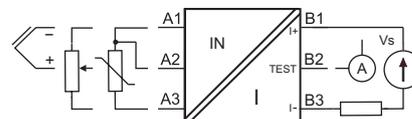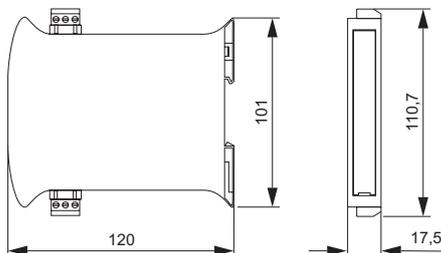
LXTconfig is a software dedicated for easy configuration of the device.
It runs on PC computer and requires Windows operating system.
Features of the software:
- easy menu,
- read current configuration of a device,
- read/write configuration setting from/to a file,
- configuration printout,
- password (optional) against any changes,
- input signal simulation (monitor mode),
- data logging to a file in the CSV format (easy import into MS Excel),
- graphical chart logged data,
- chart printout.

Ordering

Order LXT-811-S using followed code:

LXT - 811 - S ☐

| 1 | Number of channels |
| 2 | |

AUTOMATION
AND INDUSTRIAL ELECTRONIC

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Input
- Pt100, Ni100, Cu100, Pt1000
  resistance, potentiometer — 0...1600Ω
- J, K, N, S, R, B, voltage — -35...150mV
- sensor current — ~ 0.35mA
- input line resistance — ≤ 10Ω/wire
- input line resistance variation influence — ≤ 0.005%/Ω
- voltage source internal resistance — ≤ 1kΩ
- voltage source internal resistance variation infl. — ≤ 0.1%/kΩ

Output
- output signal — 4...20mA (may be inverted)
- permissible load resistance (Rl) — see load diagram
- load variation influeance — ≤ 0.03%
- sensor break indication — 3.7...22mA

General data
- basic accuracy (larger value) — ≤ 0.1%
  - resistance input / accuracy (range) / — 0.1Ω (200Ω); 0.13Ω (400Ω); 0.16Ω (800Ω); 0.2Ω (1600Ω)
  - voltage input / accuracy (range) / — 10μV (35mV); 13μV (75mV); 16μV (150mV)
- response time (10...90%) — ≤ 1s
- cold junction compensation (CJC) — ≤ 0.5°C
- galvanic separation (test) — 1.5kV AC, 50Hz, 1min
- warm up time — 15min

Power supply
- supply voltage (Vs) — 10...30V DC
- supply voltage variation influence — ≤ 0.03%
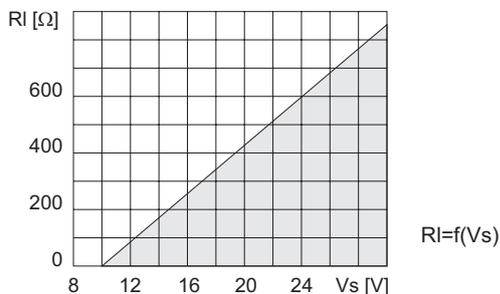- permissible ripple — ≤ 4V$_{pp}$, 50Hz

Temperature
- operating temperature — 0...70°C
- temperature influence — ≤ 0.01%/°C
- temperature influence for CJC — ≤ 0.1%/°C

Environment conditions
- storage temperature — -20...85°C
- humidity (non-condensing) — ≤ 90%
- working position — any

Housing
- material — molded PC/ABS
- protection housing/terminals — IP20/IP20
- wire connections — plugs with screw terminals 1.5 mm^2
- dimensions — see drawings on the first page
- weight (single / dual channel) — ~ 100g / 140g

Diagrams

RI [Ω] vs Vs [V], RI=f(Vs)

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