



- **Compact proportional controller**
- **TC-input on request for Fe-CuNi, NiCr-Ni or Pt100**
- **Adjustable p- control area**
- **TC- cable breakage detection**
- **Stable plastic casing**
- **Floating alarm-contact (option)**
- **Also available with Schuko-connector (631 L)**

Application

The NL631I temperature controller is a handy and inexpensive possibility to control small moulds, heating elements or –plates, radiators or basins in an optimal way.

Design

This controller has a proportional characteristic with zero-voltage switching in solid-state technology. The output is suitable for heating loads up to 1,8 kW / 8A with 230V @ 50Hz. For individual adaptation, the proportional area can be set between 0 and 20K.

Set-point

The set-point temperature can be adjusted with a knob and a linear scale between 0 and 500°C .

Safe-guard TC connection

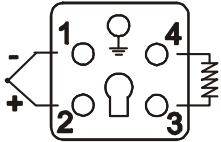
The TC connection is controlled, in case of a breakage, the safeguard relay switches off the heating and can be re-activated only if the failure is removed.

Process high / low alarm (option)

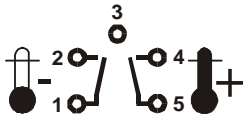
The process-high / low temperature limits can be set between +/-1 ... +/-15K . Exceeding of this limit is shown by a red LED, at the same time, a mechanical relay switches-over.

Specification

Pin assignment heating- / TC- connection



Alarm output (option)



Mains voltage

230V ±10%, 48...63Hz

Heating- / TC- connection

Industrial standard connector 4pol. + PE

Nominal rating/nominal current

1,8kW/8A

Fuse

10AFF, 5x20mm

Power control

Heavy duty solid-state relay
0...100% proportional,
zero-voltage switching

Temperature set-point

0 ... 500°C (Pt100, Fe-CuNi)

0 ... 1.000°C (NiCr-Ni)

Thermocouple

Pt100, 2-wires

Thermocouple Fe-CuNi (J)

Thermocouple NiCr-Ni (K)

Heating indication

LED yellow

Optical alarm (option)

1 LED red process high- / low
limits adjustable
+/-0 ... 15K

Alarm output (option)

1 floating n.o. contact max. 24V/1A



Set-point adjustment

Knob and scale

5°C per step

TC-cable breakage detection

Switches off the heating

Accuracy

Ca. 1% f.s.

Control characteristic

Proportional

Area 0 ... 20K

Insulation voltage

4kV

Power supply

2m cable, black with Schuko-
connector

Casing

ABS black

Dimensions

115 x 194 x 68mm (W x H x D)

Weight

0,9kg

Description

NR631I

Art.-Nr.

85331.0xx	with Connector 4-pol.
85331.05x	for TC Pt100
85331.06x	for TC Fe-CuNi(J)
85331.00x	for NiCr-Ni(K)
85331.0x0	w/o alarm
85331.0x1	with alarm