Technical
Information
TI 100F/00/en

Operating Instructions
Part No. 017290-1000

# Microwave Barrier
# *nivotester FTR 471*

## Switching instrument for the microwave barriers QR/DR 10 and QR/DR 30

Nivotester FTR 471

**Applications**
The Nivotester FTR 471 is used as a switching instrument for the microwave barriers QR/DR 10 or QR/DR 30.
The Nivotester FTR 471 is in Racksyst Eurocard format with a width of 4 HP.

More information on microwave barriers can be found in the Technical Information TI 188F/00/e for QR/DR 10 and in the Technical Information TI 012F/00/e for QR/DR 30.

**Method of operation**
Power for the microwave barrier is supplied by the Nivotester FTR 471.*
The signal coming from the microwave barrier activates an output relay in the Nivotester.
The following operating modes can be set:
- switching delay of the output relay up to 20 s
- switching delay when the relay de-energises or energises
- minimum or maximum fail-safe
  - minimum fail-safe: the relay de-energises when the microwave path is clear or when the power supply fails.
  - maximum fail-safe: the relay de-energises when the microwave path is interrupted or when the power supply fails.

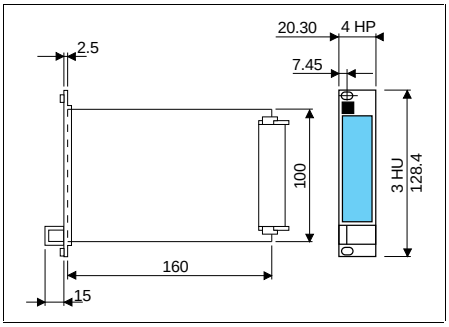
Two LEDs on the front panel indicate the switching status.

* The power pack unit in the »Monorack« supplies power to the entire measuring system.

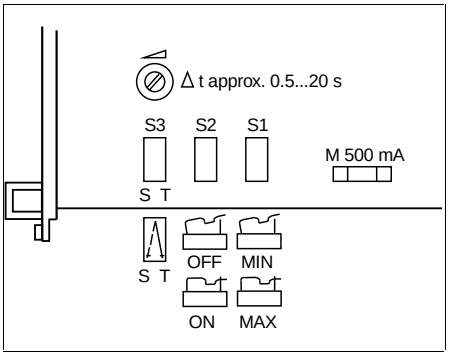
Endress+Hauser
Nothing beats know-how

# Technical Data

- Mechanical construction:
  Racksyst plug-in board, width: 4 HP
  Eurocard format
- Plug connection:
  Multipin strip to DIN 41612
  Type F (28-pole)
- Front panel: black plastic with handle and blue operating area
- Ingress protection to DIN 40050:
  Front panel IP 20, Plug-in card IP 00
- Dimensions: see diagram
- Weight: 0.15 kg
- Permissible ambient temperature:
  0 °C…70 °C
- Storage temperature: -20 °C…+85 °C
- Electromagnetic compatibility:
  Interference emission to EN 50 081-1,
  Interference immunity to EN 50 082-1
- Power supply: 24 V DC ±4 V
- Current consumption: max. 160 mA
- Output:
  Relay with 2 potential-free change-over contacts 250 V AC, 2.5 A, 300 VA
  100 V DC, 100 W
- Switching delay approx.: 0.5…20 s, energised or de-energised



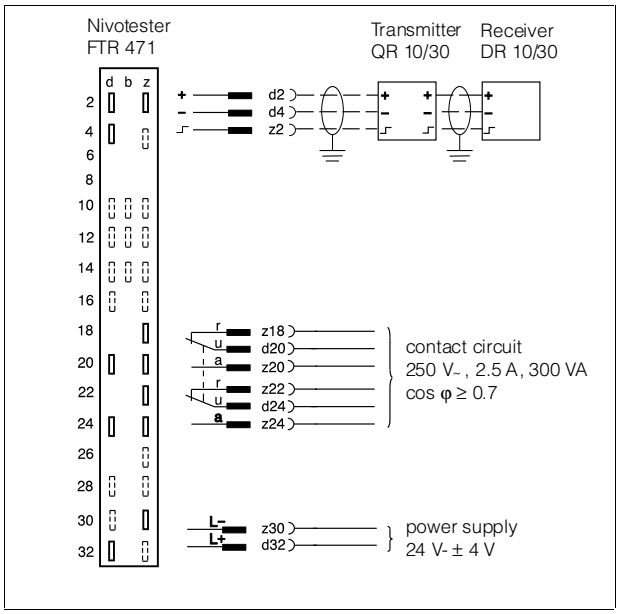

Dimensions of the FTR 471




Hook switches and calibration units for setting the switching delay:

S1 Fail-safe switching mode
S2 switching delay ON/OFF
S3 S= switching delay when relay de-energises
T= switching delay when relay energises

Switching delay time
Turning in a clockwise direction
= increase in switching delay




Connecting diagram for the FTR 471


Endress+Hauser
GmbH+Co.
Instruments International
P.O. Box 2222
D-79574 Weil am Rhein
Germany

Tel. (07621) 975-02
Tx 773926
Fax (07621) 975345


Endress+Hauser
Nothing beats know-how


08.93/MTM

TI 100F/00/en/05.97
Part No. 017290-1000
HD/CV4.2