

Room temperature sensors
in-wall, panel switch programme,
general

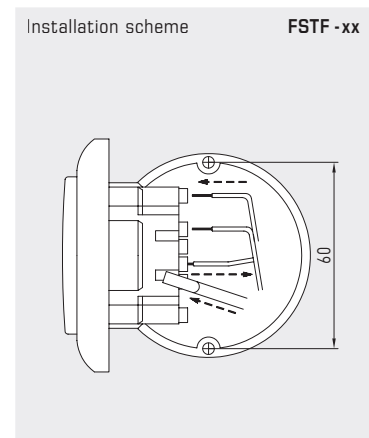
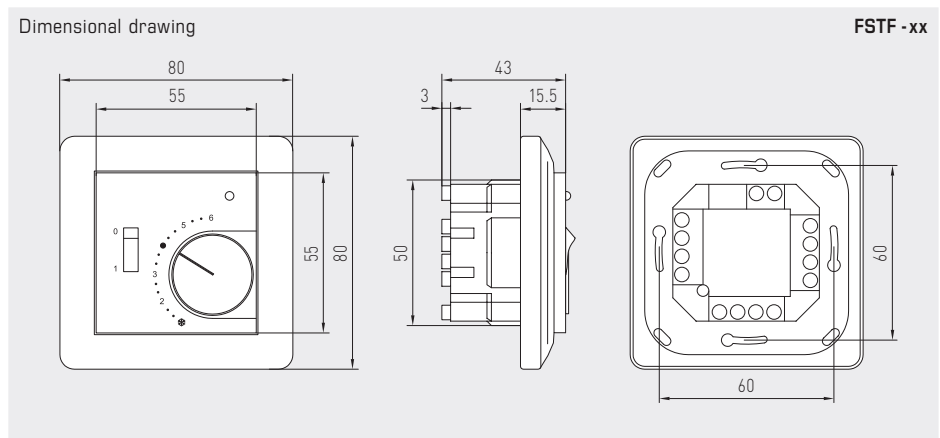
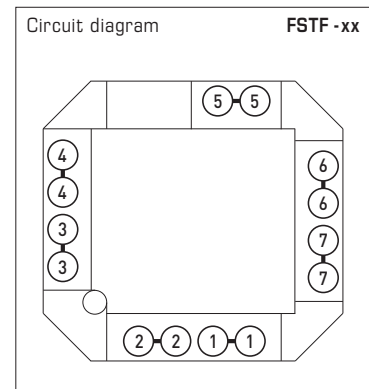
A room temperature sensor **THERMASGARD® FSTF** is used for air temperature measurement or setpoint adjustment, for presence detection or as room control and operating panel with temperature sensor, push-buttons, potentiometers, status indicators (LEDs).

The in-wall sensor is mounted in high-quality panel switch programmes, ideally of the brands Gira, Berker, Merten, Jung, Siemens or Busch-Jaeger (using in-wall adapters) either individually or in combination with light switches, socket outlets, etc.

It is used in non-aggressive, dust-free environments, in refrigeration, air conditioning and clean room technology, and in interior rooms, such as living rooms, offices, hotels, etc.

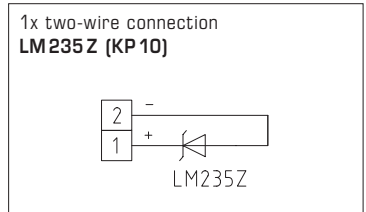
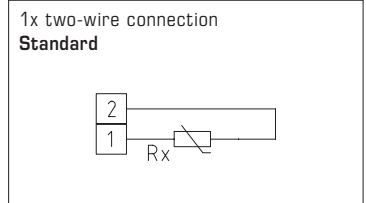
TECHNICAL DATA

| | |
|--------------------------|---|
| Measuring ranges: | -30...+60 °C |
| Sensor / output: | see table, assembled on board, passive |
| Range suppression: | in the button |
| Testing current: | < 0.6 mA (Pt1000) < 1.0 mA (Pt100) < 0.3 mA (Ni1000, Ni1000 TK5000) < 2.0 mW (NTC xx) 400 µA...5 mA (LM235Z) |
| Potentiometers: | standard 1 kΩ, max. 0.1 W (other ratings optional on request, e. g. 100 Ω, 2.5 kΩ, 5 kΩ, 10 kΩ optional 0-10V linear) |
| Turn switches: | max. 24 V AC / DC, max. 130 mA, max. 5 steps (0, Auto, I, II, III) |
| Rocker switch: | max. 24 V AC / DC, max. 130 mA |
| Push-buttons: | normally open contact, max. 24 V DC / 10 mA |
| LEDs: | max. 24 V DC (optional max. 24 V AC), standard green (red, yellow or two-colour optional) |
| Installation: | in in-wall flush box Ø 55 mm |
| Electrical connection: | FSTF-1 via screw terminals 0.14 - 1.5 mm ² , FSTF-xx via plug terminals 1.0 - 2.5 mm ² |
| Humidity: | max. 90% RH, non-precipitating air |
| Protection class: | III (according to EN 60 730) |
| Protection type: | IP 20 (according to EN 60 529) |
| SWITCH PROGRAMMES | |
| Manufacturer: | GIRA System 55 Standard (other switch programmes, manufacturers, and prices upon request) |
| Housing: | plastic, colour pure white glossy (similar to RAL 9010) (other colours are possible on request with colour variants depending on the respective switch programme) |



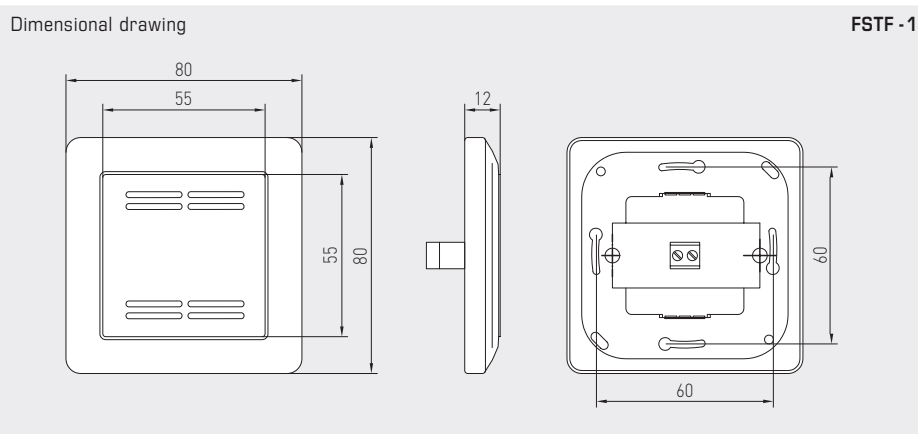


FSTF 1
Standard version
with sensor



THERMASGARD® FSTF 1 Room temperature sensors

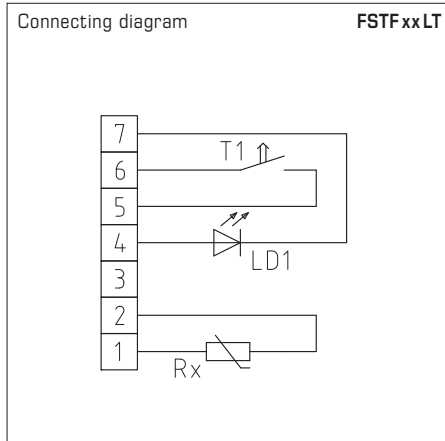
| Type / WG01 | Sensor / Output | Item No. | Price |
|---------------|--|-----------------------------|----------------|
| FSTF1 | passive | IP 20 (-30...+60 °C) | |
| FSTF1 Pt100 | Pt100 (according to DIN EN 60 751, class B) | 1101-5020-1000-162 | 54,40 € |
| FSTF1 Pt1000 | Pt1000 (according to DIN EN 60 751, class B) | 1101-5020-5000-162 | 54,40 € |
| FSTF1 Ni1000 | Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm / K) | 1101-5020-9000-162 | 56,04 € |
| FSTF1 NiTK | Ni1000 TK5000 (TCR = 5000 ppm / K), LG - Ni1000 | 1101-5021-0000-162 | 58,64 € |
| FSTF1 LM235Z | LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10 | 1101-5022-1000-162 | 54,56 € |
| FSTF1 NTC1,8K | NTC 1.8K | 1101-5021-2000-162 | 53,89 € |
| FSTF1 NTC10K | NTC 10K | 1101-5021-5000-162 | 53,32 € |
| FSTF1 NTC20K | NTC 20K | 1101-5021-6000-162 | 53,32 € |



Room temperature sensors
in-wall, panel switch programme,
different versions



FSTFxxLT
Version with sensor,
LED (green), and push-button
(max. 24 V DC, max. 10 mA)

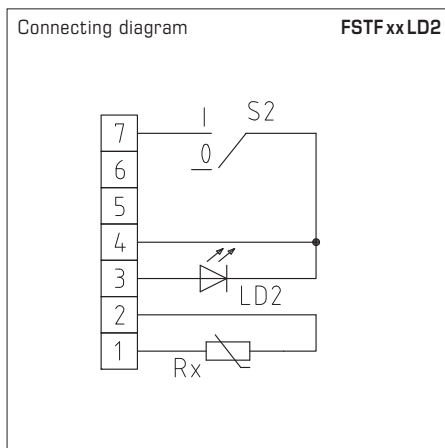


THERMASGARD® FSTFxxLT Room temperature sensors

| Type/WG01 | Sensor/Output | Item No. | Price |
|------------------|--|-----------------------------|----------------|
| FSTFxxLT | passive | IP 20 (-30...+60 °C) | |
| FSTF Pt100 L T | Pt100 (according to DIN EN 60 751, class B) | 1101-5020-1593-350 | 71,61 € |
| FSTF Pt1000 L T | Pt1000 (according to DIN EN 60 751, class B) | 1101-5020-5593-350 | 71,61 € |
| FSTF Ni1000 L T | Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm/K) | 1101-5020-9593-350 | 73,63 € |
| FSTF NiTK L T | Ni1000 TK5000 (TCR = 5000 ppm/K), LG-Ni1000 | 1101-5021-0593-350 | 73,63 € |
| FSTF LM235Z L T | LM235Z (TCR = 10 mV/K; 2.73V at 0 °C), KP10 | 1101-5022-1593-350 | 72,27 € |
| FSTF NTC1,8K L T | NTC 1.8K | 1101-5021-2593-350 | 71,61 € |
| FSTF NTC10K L T | NTC 10K | 1101-5021-5593-350 | 70,92 € |
| FSTF NTC20K L T | NTC 20K | 1101-5021-6593-350 | 70,92 € |



FSTFxxLD2
Version with sensor,
LED (green), and turn switch (2-step)
(max. 24 V AC/DC, max. 130 mA)

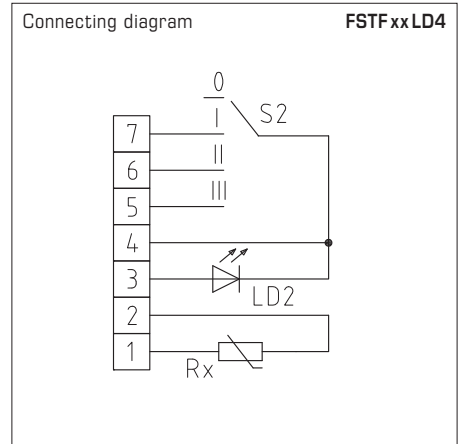


THERMASGARD® FSTFxxLD2 Room temperature sensors

| Type/WG01 | Sensor/Output | Item No. | Price |
|-------------------|--|-----------------------------|----------------|
| FSTFxxLD2 | passive | IP 20 (-30...+60 °C) | |
| FSTF Pt100 D2 L | Pt100 (according to DIN EN 60 751, class B) | 1101-5020-1631-351 | 81,95 € |
| FSTF Pt1000 D2 L | Pt1000 (according to DIN EN 60 751, class B) | 1101-5020-5631-351 | 81,95 € |
| FSTF Ni1000 D2 L | Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm/K) | 1101-5020-9631-351 | 84,54 € |
| FSTF NiTK D2 L | Ni1000 TK5000 (TCR = 5000 ppm/K), LG-Ni1000 | 1101-5021-0631-351 | 84,54 € |
| FSTF LM235Z D2 L | LM235Z (TCR = 10 mV/K; 2.73V at 0 °C), KP10 | 1101-5022-1631-351 | 82,50 € |
| FSTF NTC1,8K D2 L | NTC 1.8K | 1101-5021-2631-351 | 82,50 € |
| FSTF NTC10K D2 L | NTC 10K | 1101-5021-5631-351 | 81,83 € |
| FSTF NTC20K D2 L | NTC 20K | 1101-5021-6631-351 | 81,83 € |



FSTFxxLD4
Version with sensor,
LED (green) and turn switch (4-step)
(max. 24 V AC / DC, max. 130 mA)

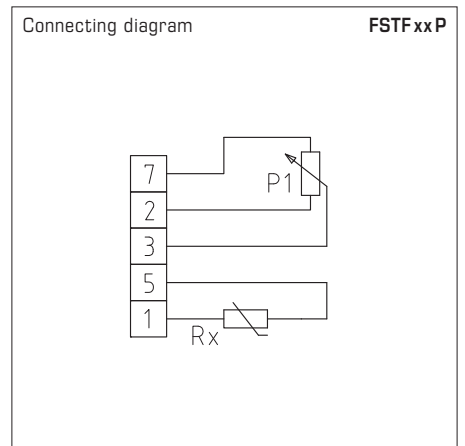


THERMASGARD® FSTFxxLD4 Room temperature sensors

| Type / WG01 | Sensor / Output | Item No. | Price |
|-------------------|---|----------------------------|----------------|
| FSTFxxLD4 | passive | IP20 (-30...+60 °C) | |
| FSTF Pt100 D4 L | Pt100 (according to DIN EN 60751, class B) | 1101-5020-1643-352 | 85,25 € |
| FSTF Pt1000 D4 L | Pt1000 (according to DIN EN 60751, class B) | 1101-5020-5643-352 | 85,25 € |
| FSTF Ni1000 D4 L | Ni1000 (according to DIN EN 43760, class B, TCR = 6180 ppm / K) | 1101-5020-9643-352 | 87,28 € |
| FSTF NiTK D4 L | Ni1000 TK5000 (TCR = 5000 ppm / K), LG - Ni1000 | 1101-5021-0643-352 | 87,28 € |
| FSTF LM235Z D4 L | LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10 | 1101-5022-1643-352 | 85,92 € |
| FSTF NTC1,8K D4 L | NTC 1.8K | 1101-5021-2643-352 | 85,25 € |
| FSTF NTC10K D4 L | NTC 10K | 1101-5021-5643-352 | 84,54 € |
| FSTF NTC20K D4 L | NTC 20K | 1101-5021-6643-352 | 84,54 € |



FSTFxxP
Version with sensor
and potentiometer
(1 kOhm, max. 0.1 W)



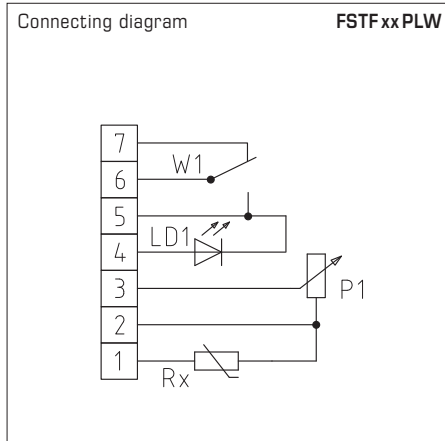
THERMASGARD® FSTFxxP Room temperature sensors

| Type / WG01 | Sensor / Output | Item No. | Price |
|----------------|---|----------------------------|----------------|
| FSTFxxP | passive | IP20 (-30...+60 °C) | |
| FSTF Pt100 P | Pt100 (according to DIN EN 60751, class B) | 1101-5020-1001-282 | 87,95 € |
| FSTF Pt1000 P | Pt1000 (according to DIN EN 60751, class B) | 1101-5020-5001-162 | 87,95 € |
| FSTF Ni1000 P | Ni1000 (according to DIN EN 43760, class B, TCR = 6180 ppm / K) | 1101-5020-9001-162 | 88,80 € |
| FSTF NiTK P | Ni1000 TK5000 (TCR = 5000 ppm / K), LG - Ni1000 | 1101-5021-0001-162 | 91,78 € |
| FSTF LM235Z P | LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10 | 1101-5022-1001-162 | 83,87 € |
| FSTF NTC1,8K P | NTC 1.8K | 1101-5021-2001-162 | 85,25 € |
| FSTF NTC10K P | NTC 10K | 1101-5021-5001-162 | 83,87 € |
| FSTF NTC20K P | NTC 20K | 1101-5021-6001-162 | 83,87 € |

Room temperature sensors
in-wall, panel switch programme,
different versions



FSTFxxPLW
Version with sensor,
potentiometer (1 kOhm, max. 0.1 W),
LED (green), and rocker switch
(max. 24 V AC/DC, max. 130 mA)

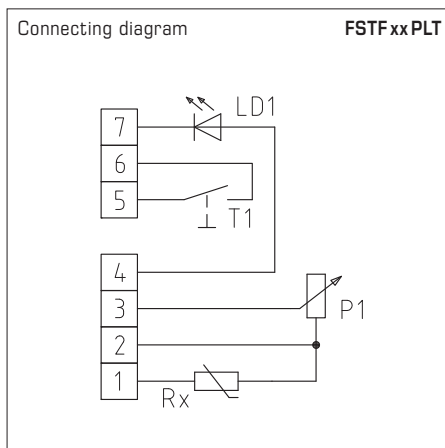


THERMASGARD® FSTF xx PLW Room temperature sensors

| Type/WG01 | Sensor/Output | Item No. | Price |
|--------------------|--|-----------------------------|-----------------|
| FSTFxxPLW | passive | IP 20 (-30...+60 °C) | |
| FSTF Pt100 P L W | Pt100 (according to DIN EN 60 751, class B) | 1101-5020-1655-353 | 111,62 € |
| FSTF Pt1000 P L W | Pt1000 (according to DIN EN 60 751, class B) | 1101-5020-5655-353 | 114,42 € |
| FSTF Ni1000 P L W | Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm/K) | 1101-5020-9655-353 | 115,10 € |
| FSTF NiTK P L W | Ni1000 TK5000 (TCR = 5000 ppm/K), LG-Ni1000 | 1101-5021-0655-353 | 117,87 € |
| FSTF LM235Z P L W | LM235Z (TCR = 10 mV/K; 2.73 V at 0 °C), KP10 | 1101-5022-1655-353 | 112,31 € |
| FSTF NTC1,8K P L W | NTC 1.8K | 1101-5021-2655-353 | 118,45 € |
| FSTF NTC10K P L W | NTC 10K | 1101-5021-5655-353 | 111,62 € |
| FSTF NTC20K P L W | NTC 20K | 1101-5021-6655-353 | 111,62 € |



FSTFxxPLT
Version with sensor,
potentiometer (1 kOhm, max. 0.1 W),
LED (green), and push-button
(max. 24 V DC, max. 10 mA)

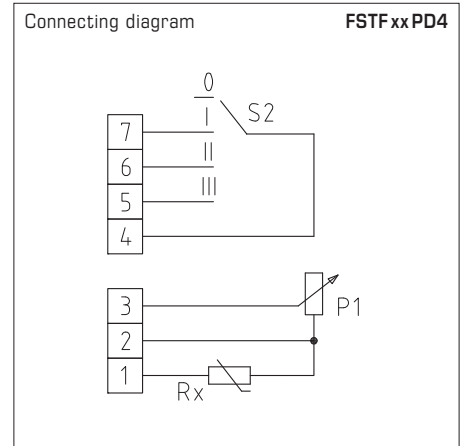


THERMASGARD® FSTF xx PLT Room temperature sensors

| Type/WG01 | Sensor/Output | Item No. | Price |
|--------------------|--|-----------------------------|-----------------|
| FSTFxxPLT | passive | IP 20 (-30...+60 °C) | |
| FSTF Pt100 P L T | Pt100 (according to DIN EN 60 751, class B) | 1101-5020-1663-162 | 111,55 € |
| FSTF Pt1000 P L T | Pt1000 (according to DIN EN 60 751, class B) | 1101-5020-5663-162 | 114,35 € |
| FSTF Ni1000 P L T | Ni1000 (according to DIN EN 43 760, class B, TCR = 6180 ppm/K) | 1101-5020-9663-350 | 115,02 € |
| FSTF NiTK P L T | Ni1000 TK5000 (TCR = 5000 ppm/K), LG-Ni1000 | 1101-5021-0663-350 | 117,82 € |
| FSTF LM235Z P L T | LM235Z (TCR = 10 mV/K; 2.73 V at 0 °C), KP10 | 1101-5022-1663-350 | 112,23 € |
| FSTF NTC1,8K P L T | NTC 1.8K | 1101-5021-2663-350 | 118,37 € |
| FSTF NTC10K P L T | NTC 10K | 1101-5021-5663-350 | 111,55 € |
| FSTF NTC20K P L T | NTC 20K | 1101-5021-6663-350 | 111,55 € |



FSTF xx PD4
Version with sensor,
potentiometer (1 kOhm, max. 0.1 W)
and turn switch
(max. 24 V AC / DC, max. 130 mA)

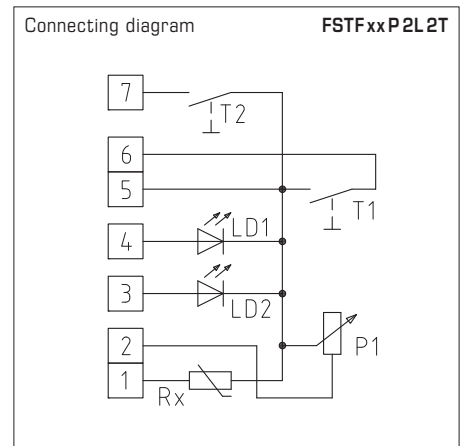


THERMASGARD® FSTF xx PD4 Room temperature sensors

| Type / WG01 | Sensor / Output | Item No. | Price |
|--------------------|---|----------------------------|-----------------|
| FSTF xx PD4 | passive | IP20 (-30...+60 °C) | |
| FSTF Pt100 P D4 | Pt100 (according to DIN EN 60751, class B) | 1101-5020-1007-354 | 115,03 € |
| FSTF Pt1000 P D4 | Pt1000 (according to DIN EN 60751, class B) | 1101-5020-5007-354 | 117,83 € |
| FSTF Ni1000 P D4 | Ni1000 (according to DIN EN 43760, class B, TCR = 6180 ppm / K) | 1101-5020-9007-354 | 118,53 € |
| FSTF NiTK P D4 | Ni1000 TK5000 (TCR = 5000 ppm / K), LG - Ni1000 | 1101-5021-0007-354 | 121,33 € |
| FSTF LM235Z P D4 | LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10 | 1101-5022-1007-354 | 115,03 € |
| FSTF NTC1,8K P D4 | NTC 1.8K | 1101-5021-2007-354 | 117,11 € |
| FSTF NTC10K P D4 | NTC 10K | 1101-5021-5007-354 | 114,35 € |
| FSTF NTC20K P D4 | NTC 20K | 1101-5021-6007-354 | 114,35 € |



FSTF xx P 2L 2T
Version with sensor,
potentiometer (1 kOhm, max. 0.1 W),
2 LEDs (green, red), and 2 push-buttons (max.
24 V DC, max. 10 mA)



THERMASGARD® FSTF xx P 2L 2T Room temperature sensors

| Type / WG01 | Sensor / Output | Item No. | Price |
|------------------------|---|----------------------------|-----------------|
| FSTF xx P 2L 2T | passive | IP20 (-30...+60 °C) | |
| FSTF Pt100 P 2L 2T | Pt100 (according to DIN EN 60751, class B) | 1101-5020-1672-256 | 117,82 € |
| FSTF Pt1000 P 2L 2T | Pt1000 (according to DIN EN 60751, class B) | 1101-5020-5672-256 | 121,64 € |
| FSTF Ni1000 P 2L 2T | Ni1000 (according to DIN EN 43760, class B, TCR = 6180 ppm / K) | 1101-5020-9672-256 | 125,59 € |
| FSTF NiTK P 2L 2T | Ni1000 TK5000 (TCR = 5000 ppm / K), LG - Ni1000 | 1101-5021-0672-256 | 127,91 € |
| FSTF LM235Z P 2L 2T | LM235Z (TCR = 10 mV / K; 2.73 V at 0 °C), KP10 | 1101-5022-1672-256 | 120,56 € |
| FSTF NTC1,8K P 2L 2T | NTC 1.8K | 1101-5021-2672-256 | 124,38 € |
| FSTF NTC10K P 2L 2T | NTC 10K | 1101-5021-5672-256 | 118,37 € |
| FSTF NTC20K P 2L 2T | NTC 20K | 1101-5021-6672-256 | 118,37 € |