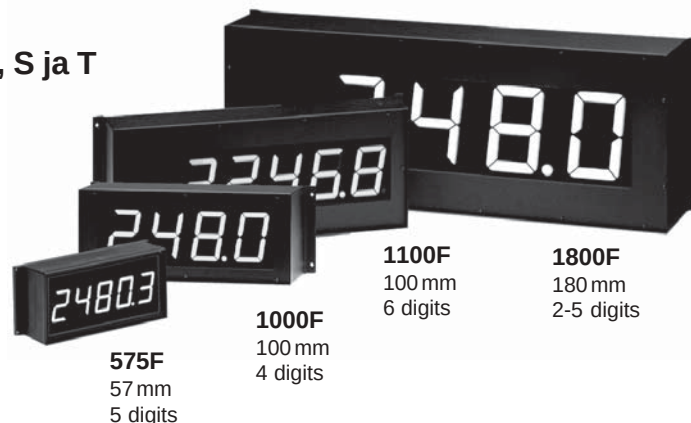


Large field displays for temperature sensors 575F, 1000F, 1100F, 1800F-2021

- 2-6 digits, size 57-180 mm
- Thermocouples B, C, D, E, G, J, K, L, N, R, S ja T
Pt100/1000, Ni100, 0/4..20 mA, 0.. 5/10 V,
-10..+10 V, 25..2500 mV, potentiometers
- Display scaling is freely adjustable
with a minidisplay inside the case
- Output 0/4..20 mA or 0..10V
- 2-4 alarm relays
- Output RS-485 or RS-232
- Power supply 85..240 VAC or 24 VDC



The field display series F- 2021 is designed for temperature sensors and the most common process inputs for applications where the readability has to be from 20 up to 100 metres. Sensor selection and programming is easy with the keys inside the case and with a 6-digit minidisplay. The displays can be changed for different types of inputs e.g. frequency input (2051) or weighing sensor (2041) by changing the input card.

Analog conversion of input is done by a 16-bit AD-converter (resolution 1/64000), the rate of measurements is 7/sec. The display can be damped by a digital filter acting in principle like an RC-filter, a big change (63 %) appears quickly and slows down when approaching the end value. The decimal point position on display is freely selectable. Access to the alarms and the programming stage can be prevented by separate passwords. Two power supply possibilities, 85..240 VAC or 24 VDC, both galvanically isolated from input/output. The displays provide 24 VDC, 40 mA power supply for sensors. Readability of the displays is also good outdoors if

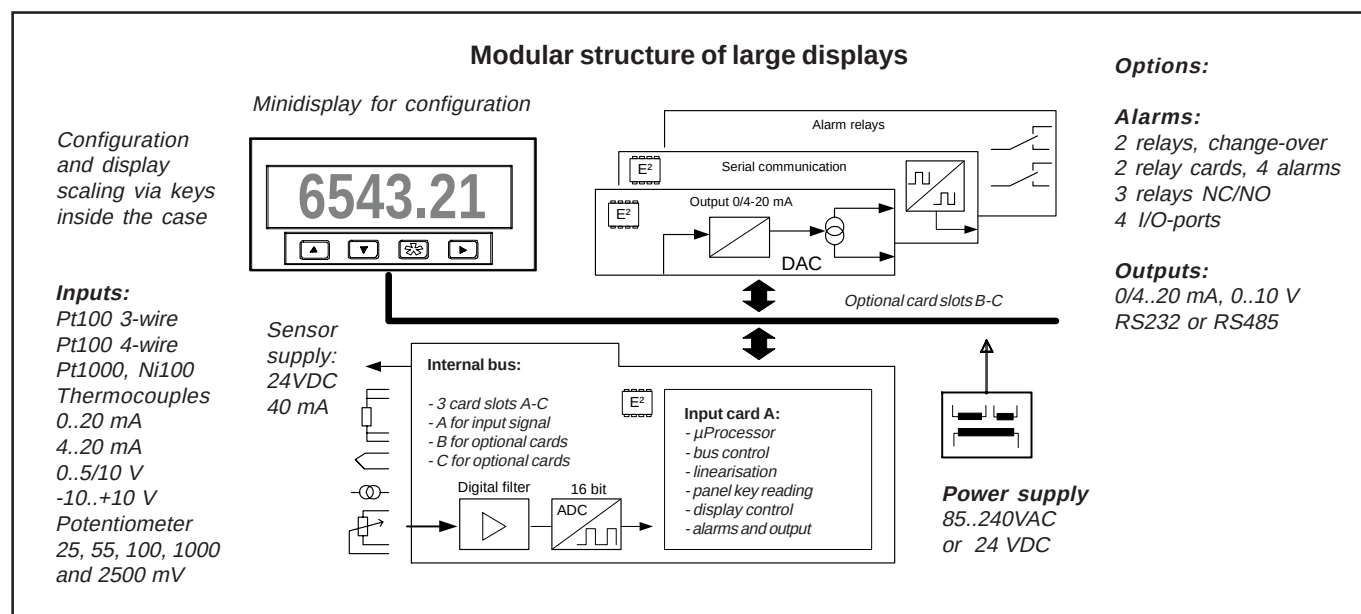
exposure to direct sun light is prevented by using a sun cover. Case protection is IP65.

Readability of displays:

digit size 57 mm 20..30 metres, size 100 mm 40..50 m, size 180 mm ca. 100 m

Models:

- | | |
|--------------------|--|
| 575F5-2021 | Digit size 57 mm, 5 digits
Dark grey plastic enclosure, IP65 |
| 1000F4-2021 | Digit size 100 mm, 4 digits
Black steel enclosure, IP65 |
| 1100F6-2021 | Digit size 100 mm, 6 digits
Black steel enclosure, IP65 |
| 1800Fx-2021 | Digit size 180 mm, 2-5 digits
Black steel enclosure, IP65
x = number of digits, please specify in your order |



Specifications:

Process inputs:	0/4..20 mA, 0..5/10 V, -10..+10 V
Display scaling	On whole display range
Input resistance	current input 50 W, voltage input >1 Mohm
Accuracy	0.01% FS
Linearity	0.005% FS
Sensor supply	24 VDC, max. 40 mA
RTD-sensors:	P100 3- and 4-wire, (Pt1000, Ni100)
Measuring range	-200..700°C (Pt100)
Measuring current	0.3 mA
Accuracy	0.05 % FS
Linearity error	< 0.03°C (-200..700°C)
Thermocouples:	Types specified below
Accuracy	0.1 % FS
Cold junction error	0.05°C /°C
Line resistance effect	<10kΩ, no effect

Type	Range	Linearisation error:
E	-100.... 900°C	<0.2°C -50.... 900°C
J	-150.... 900°C	<0.2°C -50.... 900°C
K	-150.... 1350°C	<0.4°C -40.... 1300°C
L	-100.... 900°C	<0.4°C -50.... 900°C
T	-150... 400°C	<0.2°C -150... 400°C
N	0.... 1300°C	<0.2°C 0.... 1300°C
R	0.... 1700°C	<0.3°C 400.... 1700°C (<1°C < 300°C)
S	0.... 1700°C	<0.3°C 300.... 1700°C (<1°C < 300°C)
C (W5)	0.... 2200°C	<0.3°C 400.... 2200°C (<0.4°C < 400°C)
D (W3)	0.... 2200°C	<0.3°C 500.... 2200°C (<1°C < 500°C)
B	400... 1700°C	<0.3°C 400.... 1700°C
G (W)	1000... 2200°C	<0.4°C 1000...1700°C (<3°C >1700°C)

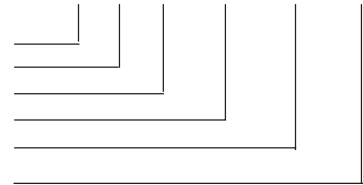
mV-inputs: 25, 55, 100, 1000 and 2500 mV
Selectable scaling multiplier for max.value

Accuracy	0.01% FS, 0.02% < 100 mV
Input resistance	<10 kΩ, no effect
Potentiometer:	range 100..1 kΩ, connection 2-wire
Output:	0/4..20 mA , max. load 700 Ω 0..10V , linearity 0.02 % FS Output freely scaleable 2, 3 or 4 alarms, relays max. 240 V, 2 A selectable hysteresis 0..100%, automatic or manual reset 4 I/O-ports, max. 60 VDC, 100 mA
Alarms:	RS232 (point to point) and RS485 (multi drop) Serialoutput only for measurement reading Baud rate and address (RS485) selectable
Serial output:	
General	
Input filter	Digital, freely selectable
A/D-converter	16 bit (64 000), unipolar or bipolar
Temperature effect	0.0008°C/°C voltage inputs
Display	2-6 digits, bright red LED
Operating temperature	-30...+50 °C
Power supply	85..240 VAC or 24 VDC, (15 W)
Weight	(575F) 3 kg, (1000F) 5 kg, (1100F) 8 kg, (1800F) 15 kg

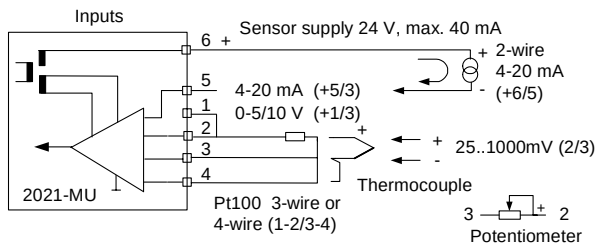
How to order:

Model 1000F4-2021-REL2-OUT-230VAC

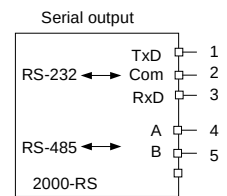
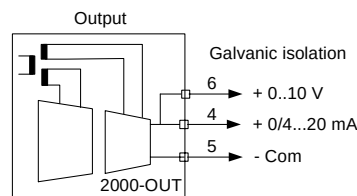
Type (see front page)
Number of digits
Input card
Relay card
Output card
Power supply
85-240VAC or 24VDC



Input and output cards



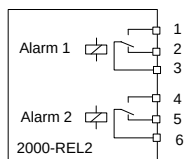
Output cards for slot B (or C)



2000-OUT

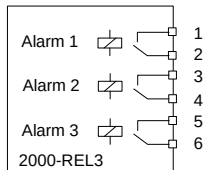
2000-232/485

Alarm cards for slot C (or B)



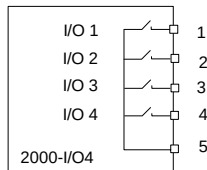
2000-REL2

- 2 relays
- Change over contacts
- max. 230 VAC/ 2 A



2000-REL3

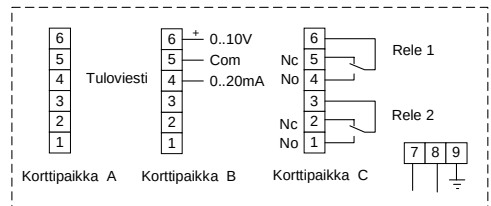
- 3 relays
- Change over contacts
- max. 230 VAC, 2 A



2000-I/O4

- 4 I/O-ports
- 60 V, 100 mA
- Selectable direction
- Common ground

2021 typical combination



Slot A is for sensor input and slots B and C for optional cards.

Power supply
85..240 VAC
or 24 VDC

Dimensions:

Dimensions shown in the order:
575F, 1000F, 1100F, 1800F

Glands: 2 x PG 11

