





MICROPROCESSOR-BASED STRAINGAGE POWER SUPPLY & SIGNAL CONDITIONER, 5-digits DIGITAL INDICATOR, nr.4 PROGRAMMABLE ALARM SETPOINTS



INNOVATING TECHNOLOGIES \mathbf{FT} ITALIANA TRASDUTTORI

GENERAL DESCRIPTION & WORKING MODES

At the first look, **MCE 547** controller is a digital indicator displaying a value, in engineering units, proportional to input signal. The **ZERO** and the **F.S.** values can be programmed within the range. **-9999** to **99999**.

With incoming signal being less than programmed **ZERO** value the reading is **-OL**.

With incoming signal being over than programmed **F.S.** value the reading is **OL**.

MCE 547 performs nr. 4 internal triggering point enabled to drive the independent throw of nr. (2+2) solidstate N.O. relays having common end each pair. The programming of both positive and negative triggering values is accepted, as well as the relay status as Active-Low or Active - High.

Any of the red LED's \$1, \$2, \$3 e \$4 indicate –when lit- the ACTIVE status of the repective relay. Hysteresis can be indipendently SW-adjusted for any trigger, and the memory latch of the triggering event can be SW-enabled (**latch = on**); in this case at pushing **S** key is shown the status of the trigger (**Lt** =latch , **rS**=reset) The reset is performed first selecting the trigger n.r by keys ^ or v , then releasing the **P** key.

Two alternative performances can be SW-selected on MCE 547: it can be programmed with

PEAK MEMORY:

The maximum reached value is normally displayed; keeping **^** key pushed, the actual input value is displayed; Simultaneously pushing **^** + **v** keys will reset the last peak. The same is performed in HW-way, by shorting the rear **IN1 + COM** terminals.

OFFSET COMPENSATION:

The actual input signal value is normally displayed; Simultaneously pushing **^** + **v** keys will set to **ZERO** the reading at the actual input value. The same is performed in HW-way, by shorting the rear **IN1** + **COM** terminals.

Main Specifications

SUPPLY SECTION:

- -110/220 Vac, 50/60 Hz, (standard)
- (selection via plug-in links on internal supply card) - Consumption : 3VA Max

SIGNAL CONDITIONING SECTION:

- Input signal from 6-wires straingage sensors, read in Differential way,
- bridge excitation 5 Vdc
- accepted sensitivities 1 to 4 mV/V
- Auxiliary Output signal **0(4)** to **20** mA

CONTROLLER SECTION:

- Internal comparison of the input signal to the setpoint of any of the 4 triggers
- Actuation of the result by switching of N.O. Relay, max. 0.1A, max. 240Vac.
 The Relays R1, R2 have common end
 The Relays R3, R4 have common end

INDICATION SECTION:

- 5 digits-15mm, height red LED's Display -high brightness- for digital reading of actual value and SW-adjusting needs(parameters codes & setting)
- 4 "Status" red LED indicating alarm setpoint active condition

ENVIRONMENT SECTION:

-Operating temperature	0 to 50 °C
-Storing temperature	-20 to 70 °C
-Humidity	0 to 90 %
	(free of condensation)
-Self-estinguish ABS resin case	
-Case 1/8 DIN (96x48x150mm, std DIN43700)	
-IP54 WP protection	
-2 x 12p plug-in terminal blocks at rear panel	
-Front-panel horizontal mounting	
-Weight: 0,5 Kg	

Local Distributor:





SF 416-H

SINGLE SETPOINT PROCESS CONTROLLER & ANALOG BARGRAPH INDICATOR FOR HIGH-LEVEL LINEARIZED SIGNALS

BUILT-IN CONFIGURATION SECTION FOR SPDT RELAY TRIGGERING POINT

FRONT-PANEL INTERNAL TRIMMERS FOR FINE TUNING OF ZERO & SPAN

30 HIGH-BRIGHTNESS RED LED VERTICAL BAR



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GENERAL DESCRIPTION

SF 416 single-setpoint controller , with built-in analog-bargraph vertical display is a compact instrument available for any kind of hi-lev Vdc or mA signal, as per order request. The analog indication is consisting of a 30-LED vertical bar, lightening itself proportionally to

the input signal, with very fast response time (less than 25 msecs.) and resolution approximately 1.6% of the F.S. input) The first higher LED lit is to indicate power supply is applied to the instrument. The internal triggering section drives the switching of an SPDT relay which is deenergized at the incoming of the setpoint event (Fail Safe mode). A red LED lits to indicate the alarm status.

The pushing of frontal SET pushbutton causes the LED bargraph scale to indicate the actual set triggering point, which can so be easily adjusted by rotating the SET frontal trimmer, independently from the actual input value.

The configuration of the working mode of the setpoint relay is allowed by welding bridges on the internal card -welding side-:

- -remove the rear plug-in terminal block & the back plastic frame by a screw-driver under the locking hooks,
- -short the bridge marked **LO** to have the warning action (relay deenergized) at the decreasing of the input signal
- -short the bridge marked **HI** to have the warning action (relay deenergized) at the increasing of the input signal
- -re-position back frame & terminal block before powering the unit

The configuration of the Power Suppply level can be selected by welding bridges on the internal card -welding side-:

- -remove the rear plug-in terminal block & the back plastic frame by a screw-driver under the locking hooks,
- -short the outer bridges marked **110** to preset for PWR Supply 110Vac, 50/60 Hz
- -short the inner bridge marked **220** to preset for PWR Supply 220Vac, 50/60 Hz
- -re-position back frame & terminal block before powering the unit

The analog input signal can be any standard instrument-level single-ended Voltage or Current (as per advised when ordered) STD Factory level is 0 - 100 mVdc

MAIN SPECIFICATIONS

SUPPLY SECTION:

- 110/220 Vac, 50/60 Hz, (standard) (selection via welded links on internal card)
 - Powered status: first higher LED lit on the bar
- INPUT SIGNAL SECTION:
 - 100 mV, single ended, standard. Other DC inputs available, on request

INDICATION SECTION:

- 30 red LED's vertical bar , high effectiveness & brightness reading of the actual value.
- Response time: < 25 msecs
- Resolution: 1.6% of the Full Scale Input signal
- Reading of the actually set trigger point by frontal **SET** pushbutton
- "Status" red LED indicating alarm setpoint active condition (de-energized relay)

CONTROLLER SECTION:

- Internal comparison of the input signal to adjusted setpoint
- Expression of the result by switching of SPDT Relay, max.2A, max. 250Vca



