

MINIATURE
METER
FOR PROCESS

FEMA ELECTRÓNICA

Model L35/A

MINIATURE panel meter
for PROCESS signals



IDEAL SOLUTION for applications with limited panel space, minimum deep space allowable and/or limited weight on the instrument is needed. Specially designed for sinoptic panels, portable equipment and similars.



FEMA
ELECTRÓNICA

USER'S MANUAL
(1152R02)

Model L35/A

MINIATURE meter for PROCESS

Instrument with miniature dimensions with 48x24 mm front size and a maximum deep inside the panel less than 70 mm, including the plug-in connection clamp. User can scale the display reading to the desired engineering units used in the process.

The internal power supply is based on a DC/DC converter that provides galvanic isolation between the measured signal and the auxiliary power supply.

The type and range of the input signal and the power supply needed are indicated on the label attached to the instrument.



TECHNICAL SPECIFICATIONS

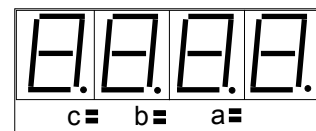
DISPLAYS	7 Segments LED, Red Color
SYMBOLS	-1.8.8.8
DIGIT HEIGHT	10 mm
POLARITY	Automatic, negative sign.
INPUT CONFIGURATION	Bipolar Simple
INPUT RANGES	See Table
CONVERTER	Dual Slope, Average Value
NUMBER OF READINGS	2,5 /second
STABILIZATION TIME	2 minutes
ACCURACY AT 25 °C	<± 0,2 % ±1 digit
TEMPCO	< 50 ppm
OUT OF SCALE POSITIVE	Display blank
OUT OF SCALE NEGATIVE	Displays sign «-»
DECIMAL POINT	Jumper Selected
WORKING TEMPERATURE	-20 °C to +60 °C
STORAGE TEMPERATURE	-40 °C to +80 °C
BURN-IN	24 h
RECALIBRATION	Annual
POWER	10...30 Vdc Isolated
START-UP CURRENT	0.2 Amp. (at 24 Vdc)
CONSUMPTION	0.6 W max
ISOLATION LEVELS	750 Vac
CONNECTIONS	Plug-in Screw Clamp
BOX	DIN 43700
DIMENSIONS	48 x 24 x 70 mm
PANEL CUT-OUT	45 x 22.2 mm
WEIGHT	60 gr

JUMPERS for INPUT SIGNAL

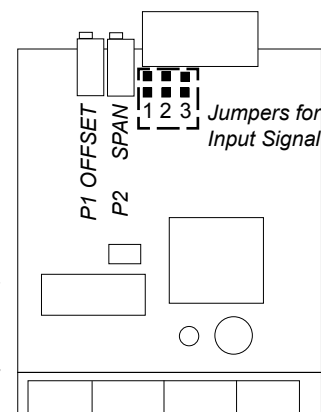
Input Signal Ranges	Close Jumpers	Impedance ±1 %
0...20 mA	1 y 2	182 Ohm
4...20 mA	1 y 2	182 Ohm
0...10 mA	1 y 3	68 Ohm
0...50 mA	1 y 3	68 Ohm
±2 Vdc	1	200 KOhm
±10 Vdc	1	200 KOhm
±200 Vdc	None	1 MOhm

JUMPERS for DECIMAL POINT

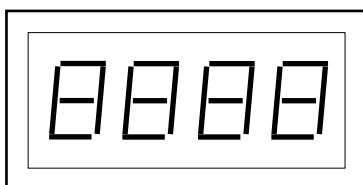
Jumper	Decimal Point
c	1.XXX
b	1X.XX
a	1XX.X



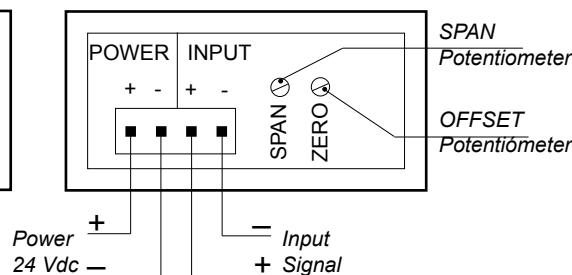
Jumpers Decimal Point



FRONT VIEW



CONNECTIONS



PROCEDURE FOR CALIBRATION AND ADJUSTMENT

Example for **STANDARD** calibration
for 4/20mA = 0/100.0

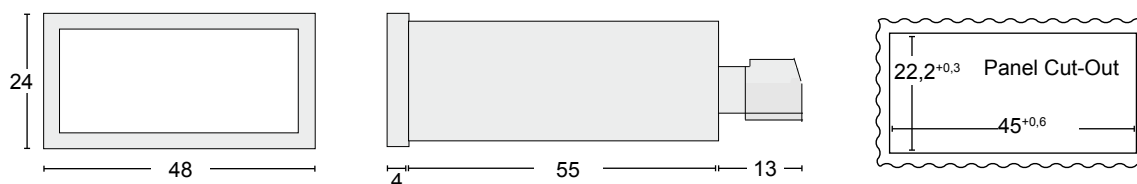
- 1.- Select Jumpers 1 and 2 (see Table)
- 2.- Power-up the instrument
- 3.- Generate 4 mA at the input terminals
Operate the «ZERO» potentiometer until the display reads «000»
- 4.- Generate 20 mA at the input terminals
Operate the «SPAN» potentiometer until the display reads «1000»
- 5.- Generate 4mA and operate the «OFFSET» until the display reads «000»
Generate 20mA and operate the «SPAN» until the display reads «1000»
Repeat these two adjustments
- 6.- Close the decimal point jumper «a»

Example for **FAST** calibration
for 4/20mA = 0/100.0

- 1.- Select Jumpers 1 and 2 (see Table)
- 2.- Power-up the instrument
- 3.- Generate 0 mA at the input terminals
Operate the «ZERO» potentiometer until the display reads «000»
- 4.- Generate 16 mA at the input terminals
Operate the «SPAN» potentiometer until the display reads «1000»
- 5.- Generate 4mA at the input terminals
Operate the «OFFSET» potentiometer until the display reads «000»
- 6.- Close the decimal point jumper «a»

Note .- «Offset» potentiometer can operate from -1000 up to +1000 points
«Span» potentiometer can operate (in mA input signal) from 100 up to 3000 points
«Span» potentiometer can operate (in Vdc input signal) from 100 up to 2000 points

MECHANICAL DIMENSIONS (mm)



CE DECLARATION OF CONFORMITY

Manufacturer.- **FEMA ELECTRÓNICA, S.A.**
Address .- Pol. Ind. Santiga - Altimira 14 (T14 - N2)
E-08210 Barberà - BARCELONA
ESPAÑA - SPAIN

Conforming products
Model .- L-35/A

We hereby declare that the above products conform to the essential protection requirements of Directives and Harmonised Standards stated below.

Signed .- D. Juncà
Position.- Quality Manager
Place .- Barberà, 2005

DIRECTIVAS

ELECTROTECHNICAL REGULATION FOR LOW VOLTAGE (RBT) ITC 21, ITC 29, ITC 35
Equipments with power supply lower than 50 Vac and/or 75 Vdc

EUROPEAN DIRECTIVE FOR ELECTROMAGNETIC COMPATIBILITY BY D93/68/CEE, ACCORDING TO RD1950/1995 (December 1)

STANDARDS

IMMUNITY
UNE EN 50082-2 (1996)

EMISSIONS
UNE EN 50081-2 (1993)

ELECTRICAL SAFETY
UNE EN 61010-1 (1996)
UNE EN 60204-1 (1997)

other products



Panel Meters
Standard 96x48mm



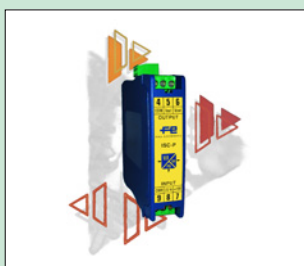
Panel Meters
Small 72x36mm



Panel Meters
Miniature 48x24mm



Large Displays
60&100mm digit



Signal Converters
& Isolators



Panel Meters
Standard 96x48mm

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ELECTRONIC INSTRUMENTATION FOR INDUSTRY

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