Panel Meters

FEMA ELECTRÓNICA

Series LAP

Loop powered panel meters

Model LAP-35 for mA current loop signals loop powered

Panel meter for mA current loop signals mA, with LCD display, loop powered from the signal loop. Reading scalable to engineering units. Reading slope configurable to be direct or inverse. Reading up to 1999 and down to -1999 with selectable decimal point position.

USER'S MANUAL
(1202R02)

Panel Meter LAP-35

Panel meter 96x48mm for mA current loop signals loop powered from the signal loop

Panel meter for mA current loop signals. Instrument self powered from the mA signal loop. LCD display. Reading scalable to engineering units.

Standard 96x48mm size, with 12.7mm digit height, and resolution from 1999 to -199, with decimal point selection.

Connections via plug-in screw terminals and configuration via internal jumpers for range selection and span and offset potentiometers at the rear of the instrument. For application on industrial environments.

Order Reference

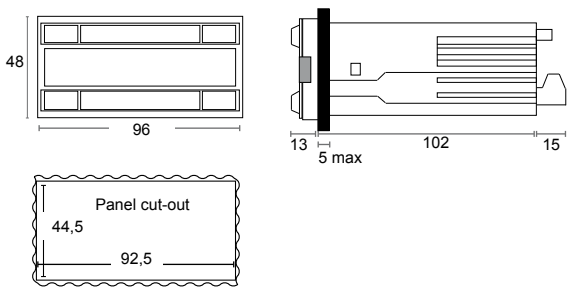
		Model		Input		Reading
LAP	-	**35**		**(4/20mA**	=	**0/100.0)**
				- 4/20mA - 10/50mA - 1/5mA		- 0/100.0 - 0/345 - 10/1999

Technical specifications

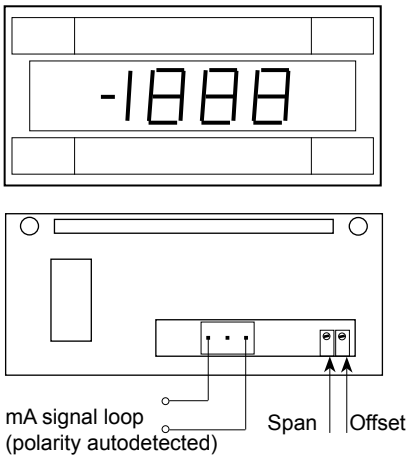
Digits	3 1/2
Type	LCD, 7 segments
Height	12.7 mm
Reading max./min.	1999 / -1999
Decimal point	selectable 1.8.8.8
Overrange	1___ ("_"= digits powered off)
Underrange	-1___ ("_" = digits powered off)
Signals accepted	mA
Ranges selectable	4/20mA, 10/50mA, 1/5mA
Connection	2 wires
Type	active signal
Overcurrents	max. 200mA
Power	loop powered
Voltage drop	5.3V maximum
Configuration	internal jumpers and span and offset potentiometers at the rear of the instrument
Accuracy at 25ºC	0.1% FS ±1 digit
Display update	2.5 samples/second

Mechanical	
Mounting	panel
Connections	plug-in screw clamp
Weight	<150 grams
Housing material	ABS
Front size	96x48mm
Panel cut-out	92.5x44.5mm
Deep from panel	117mm (including terminal)
Protection	IP20
Operating temp.	de 0 a 50ºC
Storage temp.	de –20 a +70ºC
Warm-up	15 minutes

Mechanical dimensions (mm)



Front and rear view



Signal range selection

Select the jumpers for the desired input signal range.

4/20mA	S2-B
10/50mA	S2-A
1/5mA	(Abrir S2-A y S2-B)

Span and offset range selection

Select the jumpers for the desired span and offset range.

Low range	S3-A, S3-G	Span from 385 to 785 Offset from -160 to 100
Middle range	S3-B, S3-G	Span from 750 to 1500 Offset from -260 to 200
High range	S3-G	Span from 1090 to 1999 Offset from -380 to 560

Slope reading selection

Select the jumpers for the desired reading slope.

Direct	S2-D, S2-E, S3-E, S3-F
Inverse	S2-C, S2-F

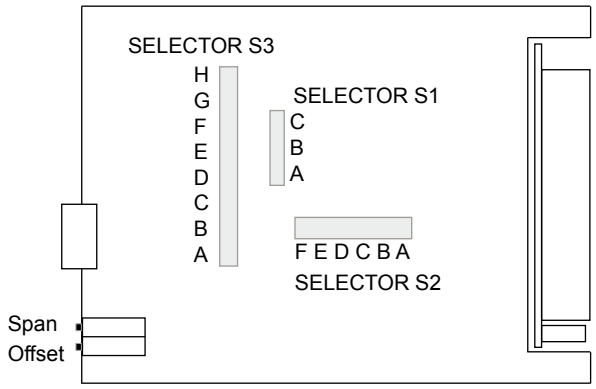
As standard, the direct slope is used (reading increases when signal increases). The inverse slope configures the reading to decrease when reading increases.

Decimal point selection

Select the jumpers for the desired decimal point position.

1.XXX	S1-C
1X.XX	S1-A
1XX.X	S1-B

Internal jumpers



Readjustment procedure

1- Take all jumpers out
2- Select appropriate signal range jumpers
3- Select appropriate slope reading jumpers
4- Select appropriate span and offset jumpers. *Calculate span and offset values according to the example below. Example given for an adjustment of 4/20mA = 0/1000*

IL (input signal low) = 4mA *RL (reading low)=0*
IH (input signal high)= 20mA *RH (reading high)=1000*

G = (RH - RL) / (IH - IL)
Offset = RL - (IL x G)
Span = RH

If value obtained for G is higher than 125 or values for span and offset do not fit into any of the three available ranges, then the adjustment is out of the capabilities of the instrument.

5- Select appropriate decimal point jumpers
6- Connect a signal generator to the input terminals
7- Generate the input signal low (*4mA)*
Operate Offset potentiometer until the value for reading low is reached (0*)*
8- Generate the input signal high *(20mA)*
Operate Span potentiometer, until the value for reading high is reached *(1000)*
9- Repeat steps 7 and 8, until desired accuracy is obtained

CE Declaration of conformity

Manufacturer FEMA ELECTRÓNICA, S.A.
Pol. Ind. Santiga - Altimira 14, E08210 - Barberà del Vallès -BARCELONA, ESPAÑA-SPAIN, www.fema.es

Products : LAP-35. The manufacturer declares that the instruments indicated comply with the directives and rules indicated below. Directive of electromagnetic compatibility 2004/108/CEE. Directive of low voltage 73/23/CEE. Safety rules 61010-1**,** Equipment "Fixed", Pollution degree 1, CAT-I. 61000-6-4 Generic rules of emission. 61000-6-2 Generic rules of immunity
Barberà del Vallès October 2002
Daniel Juncà - Quality Manager

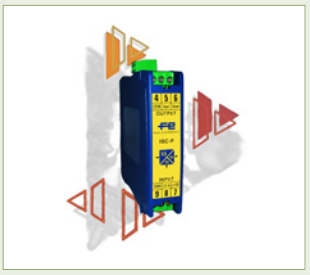
other products

Panel Meters
Standard 96x48mm

Panel Meters
Small 72x36mm

Panel Meters
Miniature 48x24mm

Large Displays
60&100mm digit



Signal Converters
& Isolators

Bar Meters

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ELECTRONIC INSTRUMENTATION FOR INDUSTRY

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