FEMA

MANUFACTURING FOR INDUSTRIAL AUTOMATION

50 YEARS
1969-2019

CE Product

Q Quality
ISO9001

5 YEARS
Extended Warranty

Small Catalog
2018-2019

DIGITAL PANEL METERS
LARGE FORMAT METERS
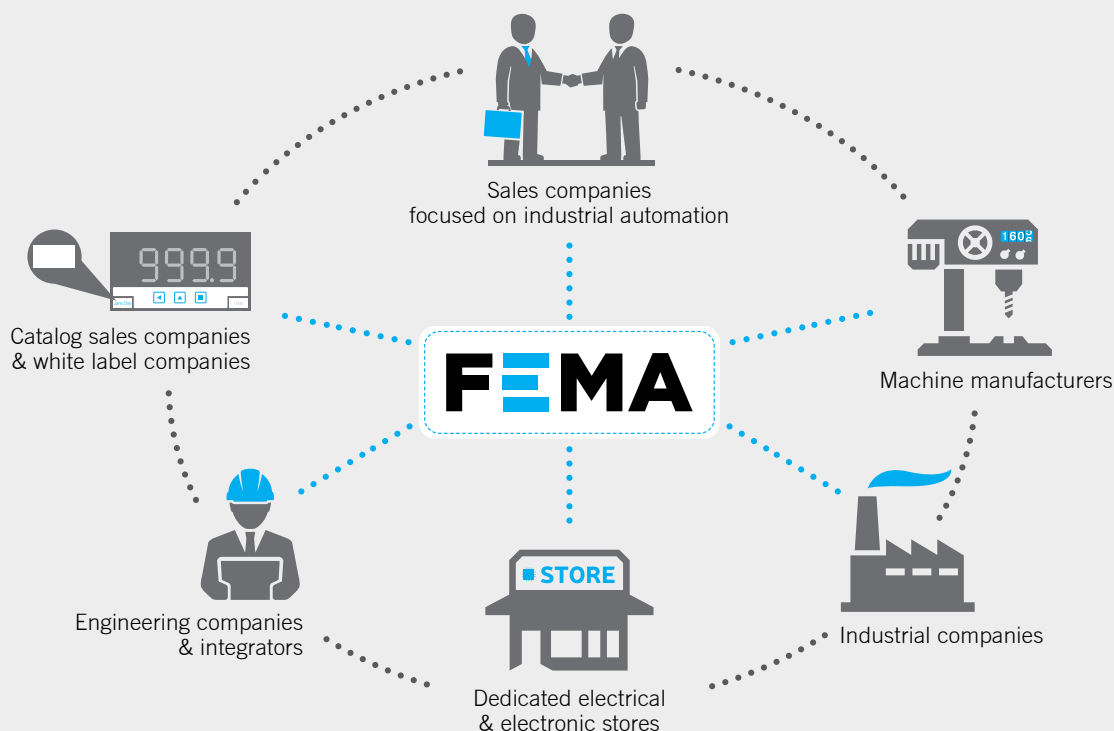## ISOLATORS & SIGNAL CONVERTERS

FEMA

Manufacturer of electronic instrumentation for the industrial automation field since 1969. FEMA provides to national and international companies with quality instrumentation, focusing into **the quality on the analog signal acquisition** and **isolation between circuits**.

With its main facilities located in Barcelona, FEMA **designs and produces** each instrument following a strict quality control. Today, **the reliability and quality of our instruments allows us to export more than 60% of our production world wide**, through **an extensive network of distributors and associated customers**.

With **more than 45 years** in the market **FEMA is recognized by its national and international customers** with their trust and confidence, and from external organizations, achieving its first official **ISO9001 Quality Certification** in 1999 and the **Best Export Award from the Chamber of Industry and Trade of Sabadell** in 1993.

With a wide catalog of instrumentation both for digital meters and for signals isolators and converters, **FEMA is the reliable partner** for your instrumentation needs**. For any additional information** about our Small Catalog 2016-2017, **check the FEMA General Catalog** or **visit our web page www.fema.es**
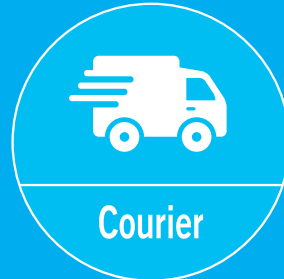
Sales companies
focused on industrial automation

Catalog sales companies
& white label companies

Machine manufacturers

FEMA

Engineering companies
& integrators

Dedicated electrical
& electronic stores

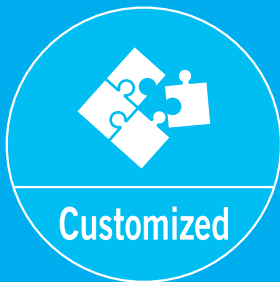Industrial companies

SERVICES

URGENT ORDERS

Urgent !!

Priority service for urgent orders. Material ready for delivery, at the agreed date and hour.

GLOBAL SHIPMENT

Courier

Shipments arranged every where in the world, with web tracking service for your information and security.

CUSTOMIZATION

Customized

Customization of the instrument or even instruments developed based on your requirements.

QUALITY

CE Product

Quality instruments designed and manufactured in compliance with CE regulations.

PRE AND POST SALES SUPPORT

Support

Our team identifies the instrument that best suits your needs and is ready for support at installation time.

EXTENDED 5 YEARS WARRANTY

5 YEARS
Extended Warranty

Extended warranty from 2 to 5 years in all our products without additional cost through our web : www.fema.es

SERIES M

SERIES K

SERIES S

NEW
Sept.2017

SERIES B

digital panel meters
general industry applications

FEMA designs digital panel meters based on each particular signals needs on the industrial sector. Reliable instruments, with clear and sharp reading, variety of sizes, digits, colors, signals and options. The 'general industry applications' series has the instrument you need for your specific application, and FEMA is the reliable partner for your company.

The following table contains **information on series M, K, S and B**. For additional information, contact us or check our full catalog at **www.fema.es**

|	SERIES M	SERIES K	SERIES S	SERIES B
	Series standard I Medium Extensive functions and performance Easy installation Intuitive programming menu	View up to 8 meters I King Extensive functions and performance Easy installation Intuitive programming menu	Compact size I Small Extensive functions and performance Easy installation Intuitive programming menu	Maximum view I Big Extensive functions and performance Flexible installation Intuitive programming menu
Digits	4, 5, 6	4	4	4, 6
Digit height	14 mm	20 mm	14 mm	60 mm 100 mm
Color	Red Green	Red	Red Green	Red Green
Reading	999999/-199999 99999/-99999 9999/-9999	9999/-1999	9999/-1999	999999/-199999 9999/-1999
Front size	96 x 48 mm	96 x 48 mm	72 x 36 mm	340 x 135 mm / 436 x 135 mm 542 x 166 mm / 740 x 166 mm
Deep	91 mm	91 mm	98 mm	80 mm
Power	H (85-265 Vac/dc) L (11-60 Vdc and 24/48 Vac)	H (85-265 Vac/dc) L (11-60 Vdc and 24/48 Vac)	H (85-265 Vac/dc) L (11-60 Vdc and 24/48 Vac)	H (85-265 Vac and 120-370 Vdc) L (11-36 Vdc)
Optional outputs	Relay outputs (1, 2, 3, 4 or 6) Transistor outputs (1, 2 or 3) SSR control outputs (1, 2 or 3) Analog outputs (1, 2 or 3) MODBUS RTU, RS-485, RS-232	Relay outputs (1, 2, 3, 4 or 6) Transistor outputs (1, 2 or 3) SSR control outputs (1, 2 or 3) Analog outputs (1, 2 or 3) MODBUS RTU, RS-485, RS-232	Relay outputs (1, 2 or 4) Transistor outputs (1 or 2) SSR control outputs (1 or 2) Analog outputs (1 or 2) MODBUS RTU, RS-485, RS-232	Relay outputs (1, 2, or 3) Transistor outputs (1, 2 or 3) SSR control outputs (1, 2 or 3) Analog outputs (1, 2 or 3) MODBUS RTU, RS-485, RS-232
Accessories	DIN rail mount Benchtop housing Adapter 96 x 96 mm Wall mount	DIN rail mount Benchtop housing Adapter 96 x 96 mm Wall mount	Adapter 72 x 72 mm Units labels	Remote keypad Panel junction protector
Other characteristics	Isolated circuits Modular architecture Plug-in screw terminals	Isolated circuits Modular architecture Plug-in screw terminals	Isolated circuits Modular architecture Plug-in screw terminals	View up to 25 and 50 meters Sturdy metallic IP65 housing Configurable from front keypad
Models and signals	Process PT100 and Thermocouples Counter, Ratemeter, Periodmeter Voltmeter AC and Ammeter AC Voltmeter DC and Ammeter DC Frequencymeter for AC lines Chronometer, Time counter Weight - Load cells For Potentiometers For MODBUS RTU protocol For RS-485 and RS-232 ASCII	Process PT100 and Thermocouples Counter, Ratemeter, Periodmeter Voltmeter AC and Ammeter AC Voltmeter DC and Ammeter DC Chronometer, Time counter Weight - Load cells For Potentiometers For MODBUS RTU protocol For RS-485 and RS-232 ASCII	Process PT100 and Thermocouples Counter, Ratemeter, Periodmeter Voltmeter AC and Ammeter AC Voltmeter DC and Ammeter DC Chronometer, Time counter Weight - Load cells For Potentiometers For MODBUS RTU protocol For RS-485 and RS-232 ASCII	Process PT100 and Thermocouples Counter, Ratemeter, Periodmeter Chronometer, Time counter Weight - Load cells For Potentiometers For MODBUS RTU protocol For RS-485 and RS-232 ASCII

SERIES **C**

SERIES **V**

INST.**L35**

digital panel meters series OEM for industry

FEMA digital panel meters from the OEM series are designed to achieve a competitive price while acquiring a wide range of different signals in a single configurable instrument. Modularity, price and specifications makes OEM series a range of instruments highly competitive.

The following table contains **information on series C, V and L35**. For additional information, contact us or check our full catalog at **www.fema.es**

	SERIES **C**	SERIES **V**	INSTRUMENT **L35**
	Universal input signal with universal power supply	Compact size with universal power supply	Miniature size instruments
Digits	4	4	3 1/2
Digit height	14 mm	14 mm	10 mm
Color	Red	Red	Red
Reading	9999 / -1999	9999 / -1999	1999/-1999
Front size	96 x 48 mm	72 x 36 mm	48 x 24 mm
Deep	91 mm	75 mm	68 mm
Power	U (18-265 Vac/dc)	U (18-265 Vac/dc)	10-30 Vdc
Optional outputs	Relay outputs (1 or 2) Analog output Modbus RTU output	- - -	- - -
Accessories	Adapter 96 x 96 mm Units labels	Adapter 72 x 72 mm	- - -
Other characteristics	Multi signal in a single instrument View up to 5 meters Configurable from front keypad Optional relays, analog and Modbus RTU Protection IP50, IP65 Isolated circuits	Compact size View up to 5 meters Configuration keypad behind the front filter Protection IP52 Isolated circuits Plug-in screw terminals	Miniature size View up to 4 meters Potentiometer based Plug-in screw terminals Anti reflexive front filter
Models and signals	Voltmeter AC and DC up to 600 Vac/dc Ammeter AC and DC up to 5 Aac/dc Process Temperature probes Pt, Ni, NTC, PTC and thermocouples Frequency meter up to 100 Hz Resistances and Potentiometers	Voltmeter AC and DC up to 600 Vac/dc Ammeter AC and DC up to 5 Aac/dc Process Temperature probes Pt, Ni, NTC, PTC and thermocouples Frequency meter up to 100 Hz Resistances and Potentiometers	Process and Vdc
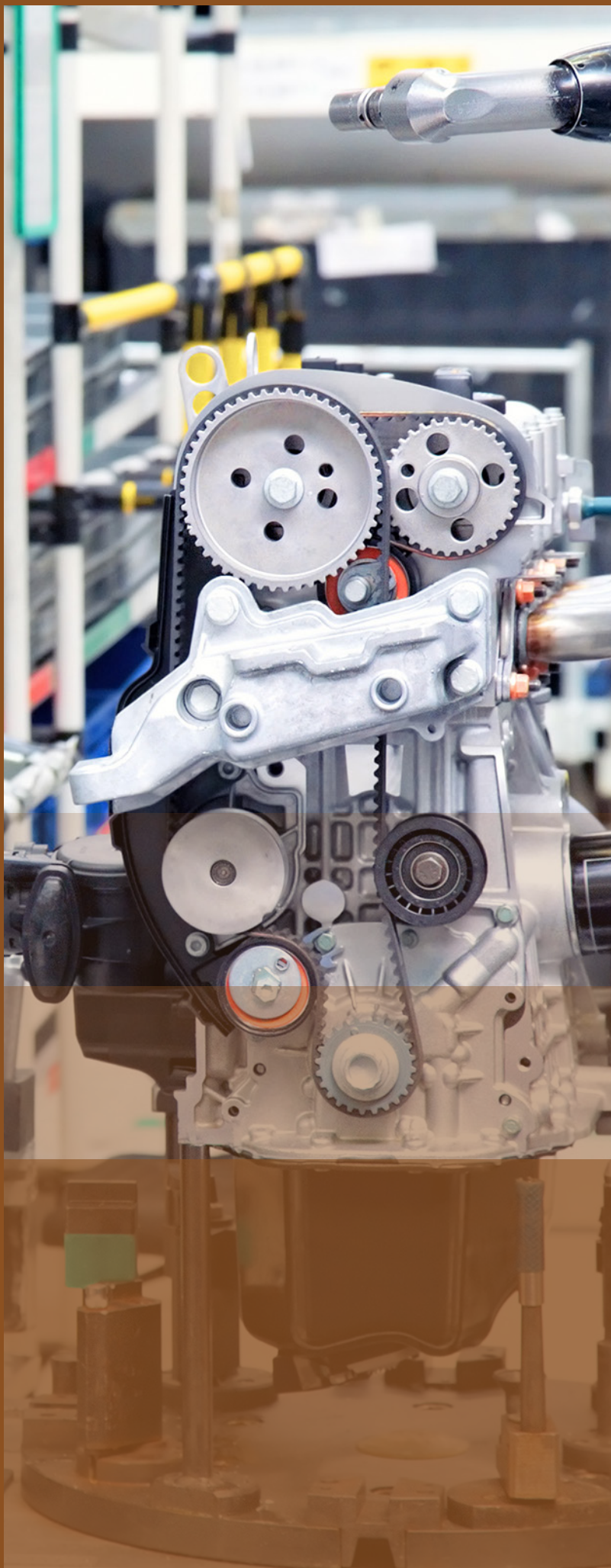
SERIES **BAR**

SERIES **RD**

INST. **LAP**

digital panel meters special series

Within the 'special series' section are several examples of developments for specific industrial needs, High levels of quality and performance, each instrument fulfills specific needs : 'Full equip' meter, bar meters, LCD display and parallel BCD code repeaters are only 3 examples of our range of special instruments.

The following table contains **information on EC4-ZR3, BAR, RD and LAP**. For additional information, contact us or check our full catalog at **www.fema.es**

	EC4-ZR3	SERIES BAR	SERIES RD	INSTRUMENT LAP
	'FULL EQUIP'	Bar graph reading	for parallel and multiplexed BCD code	Loop powered
Digits	4	BAR leds	2,3,4,5	3 1/2
Digit height	14 mm	30 segments	14 mm	12.7 mm
Color	Red	Red Green	Red	LCD
Reading	9999/-1999	0/100 % 100/0/100 %	99999/-9999 9999/-9999 999/-999 99/-99	1999/-1999
Front size	96 x 48 mm	96 x 48 mm 96 x 24 mm	96 x 48 mm	96 x 48 mm
Deep	91 mm	117 mm	152 mm	117 mm
Power	U (18-265 Vac/dc)	0 (230 Vac) 1 (115 Vac) 6 (24 Vdc)	0 (230 Vac) 1 (115 Vac) 6 (24 Vdc)	Loop powered
Optional outputs	4 relay outputs SPST (included) 1 analog output (included)	Relay outputs	- - -	- - -
Accessories	Adapter 96 x 96 mm	Adapter 96 x 96 mm Protector front IP65	Adapter 96 x 96 mm Protector front IP65	Adapter 96 x 96 mm Protector front IP65
Other characteristics	Instrument 'Full Equip' with 4 relays SPST and 1 isolated analog output included as standard Multi signal in a single instrument Configurable from front keypad Protection IP65 Isolated circuits	BAR led reading View up to 5 meters Plug-in screw terminals High quality front lens	View up to 5 meters For parallel BCD code Plug-in screw terminals High quality front lens	View up to 4 meters Loop powered Plug-in screw terminals
Models and signals	Voltmeter AC and DC up to 600 Vac/dc Ammeter AC and DC up to 5 Aac/dc Process Temperature probes Pt, Ni, NTC, PTC and thermocouples Frequency meter up to 100 Hz Resistances and Potentiometers	Process	Parallel BCD code	Loop powered process meter

SERIE **ISC**

SERIES **CCT-100**

SERIES **CCT-55**

SERIES **FAR**

signal converters & isolators

Signal converters with galvanic isolation, for a wide range of electrical signals of common use in industry. From simple process isolators without configuration needs, up to more complex units for all type of signals : temperatures, process, voltages AC and DC, currents AC and DC, frequencies, resistances, etc.

The following table contains **information on series ISC, CCT-100, CCT-55 and FAR**. For additional information, contact us or check our full catalog at **www.fema.es**

	General Industry Appl.	Series OEM	Special Series	
	SERIES **ISC**	SERIES **CCT-100**	SERIES **CCT-55**	SERIES **FAR**
	Signal converters and isolators	Isolator	Integrator	Power supply
Signal output	4/20 mA, 0/10 Vdc, …	Same as input	Frequency	Vdc
Mount	DIN rail mount	DIN rail mount	DIN rail mount	DIN rail mount
Power	0 (230 Vac) 1 (115 Vac) 6 (24 Vdc)	Loop powered	0 (230 Vac) 1 (115 Vac) 6 (24 Vdc)	0 (230 Vac) 1 (115 Vac)
Other characteristics	Wide range of signals Isolated input-output-power High level of isolation Configurable with front potentiometers and jumpers	Series OEM Loop powered No configuration needed Output same as input	Signal integrator Input in mA or Vdc Frequency output Isolated input-output-power High level of isolation	Power supply Stabilized for load cells
Models and signals	Process Pt100 Thermocouple J Thermocouple K Thermocouple T Thermocouple E Thermocouple S Thermocouple R Voltages DC Voltages AC Currents DC Currents AC Potentiometers Resistances Frequencies Load cells	Process in mA	Process in mA and Vdc	- - -

Panel meters
Standard 96 x 48 mm

Large format meters

Panel meters
Compact 72 x 36 mm

Bar meters

Signal converters

Panel meters
Miniature 48 x 24 mm

Isolators

Low Cost

'Customized'
instruments

FEMA
ELECTRÓNICA

FEMA ELECTRÓNICA, S.A.

Altimira 14 - Pol. Ind. Santiga
E08210 Barberà del Vallès
BARCELONA - SPAIN

- *Tel. +34 93.729.6004*
  Fax +34 93.729.6003

- *info@fema.es*
  www.fema.es

Process

°C
°F

1606

Vac/Aac

Vdc/Adc

Hz

Modbus

BCD

Kg

RS-485

RS-232

Custom

Doc. 2664l18