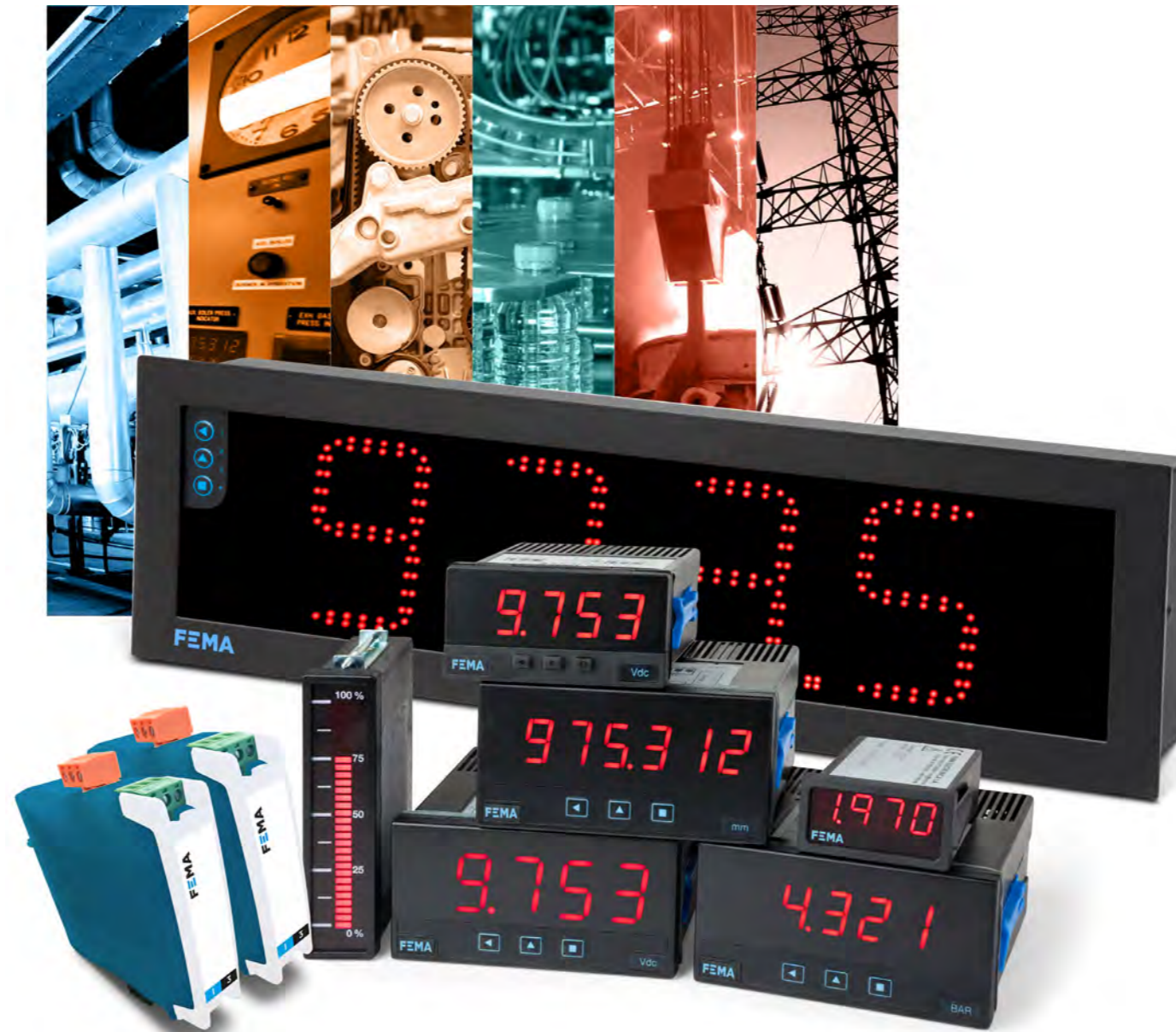


# Presentation INDUSTRY Series



*Big*



*King*



*Medium*



*Small*

**DIGITAL PANEL METERS  
and CONTROLLERS**



**FEMA ELECTRÓNICA  
MANUFACTURING FOR INDUSTRIAL AUTOMATION**

**50**  
YEARS  
1969-2019

**Q**  
ISO 9001  
Certified Quality

**5**  
YEARS  
Extended Warranty

The INDUSTRY series of digital meters and controllers offers **versatility and reliability** in all type of industrial applications, offering a **wide range of models and sizes**, both for input signals and for output and control options, and accessories. The industry standard 14 mm digit height provide an **excellent reading for a distance of up to 5 meters**. The joint use of 7 segment red leds with a specially adapted front lens, provides a **sharp and clean reading**.

The visual lines of the INDUSTRY Series stand for a **clean and wide front space**, where the main role is focused on the value displayed. The configuration keypad (and remote keypad) together with the units label, are located at the bottom, and do not visually interfere with the value displayed, the important information to be shown.

The INDUSTRY Series stands out for its security : **all circuits are isolated** between them, and excitation voltages are **protected against short circuits**. Internal components (such as leds, microcontrollers, push buttons, terminals, ...) are acquired to high reputation brands, it mounts plug-in screw terminals for safe connections, (gland for Series B) a housing specifically designed at FEMA, a patented panel fixation and front labeling units with high quality industrial adhesive.

The INDUSTRY Series internal architecture features a **modular design** providing flexibility to replace, add or change any of its internal modules to expand functionality as needed.

In short, the INDUSTRY Series is the **standard series for all type of industrial applications**. The wide range of input signals accepted, both analog and digital, the output and control modules available, and the accessories it features, allows for a high level of customization, fitting to all type of industrial needs.



| Characteristics             | Series B (B44 & B46) | Series B (B24 & B26) | Series K       | Series M       | Series S       |
|-----------------------------|----------------------|----------------------|----------------|----------------|----------------|
| Digit height                | 100mm                | 60mm                 | 20mm           | 14mm           | 14mm           |
| Reading distance            | up to 50meters       | up to 25 meters      | up to 8 meters | up to 5 meters | up to 5 meters |
| Number of digits            | 4 & 6                | 4 & 6                | 4              | 4, 5, 6        | 4              |
| Digit color                 | red or green         | red or green         | red            | red or green   | red or green   |
| Front size                  | Panel, Hang & Wall   | Panel, Hang & Wall   | 96x48mm        | 96x48mm        | 72x36mm        |
| Available slots for options | 2 & 3                | 2 & 3                | 3              | 3              | 2              |

## REFERENCE MAKER

| Series | Digits & sizes | Input Signal Model | Power Supply               | Output at Slot1          | Output at Slot2          | Output at Slot3          | Others                  |
|--------|----------------|--------------------|----------------------------|--------------------------|--------------------------|--------------------------|-------------------------|
| M      | 60             | C1                 | H                          | ---                      | ---                      | ---                      | ---                     |
| M      | 60             | - P                | - H (85-265Vac/dc)         | - R1 (1 relay output)    | - R1 (1 relay output)    | - R1 (1 relay output)    | - NBT (no front keypad) |
|        | 40             | - T                | - L (11-60Vdc to 24/48Vac) | - AO (analog output)     | - AO (analog output)     | - AO (analog output)     | - G (green digits)      |
| S      | 40             | - A                |                            | - T1 (transistor output) | - T1 (transistor output) | - T1 (transistor output) | - W (white digits)      |
| K      | 40             | - D                |                            | - SSR (relay control)    | - SSR (relay control)    | - SSR (relay control)    | - (empty)               |
| B      | 24             | - R                |                            | - RTU (MODBUS RTU)       | - RTU (MODBUS RTU)       | - RTU (MODBUS RTU)       |                         |
|        | 26             | - F                |                            | - S4 (RS-485)            | - S4 (RS-485)            | - S4 (RS-485)            |                         |
|        | 44             | - C1               |                            | - S2 (RS-232)            | - S2 (RS-232)            | - S2 (RS-232)            |                         |
|        | 46             | - CR               |                            | - 0 (empty)              | - 0 (empty)              | - 0 (empty)              |                         |
|        |                | - RTU              |                            | - (empty)                | - (empty)                | - (empty)                |                         |
|        |                | - 485              |                            |                          |                          |                          |                         |
|        |                | - 232              |                            |                          |                          |                          |                         |
|        |                | - LC               |                            |                          |                          |                          |                         |

\*Series B power supply '-H' is 85...265Vac and 120...370Vdc and '-L' is 11...36Vdc

\*R2, R4 and R6 (special options, ask compatibility with other options)

\*Option at Slot3 available only in Series M, Series K and Series B26 & B46



## Models & Signals

## Series & Sizes

## Output & Controls

|  |             |   |
|--|-------------|---|
|  | <b>-A</b>   | Voltmeters & Ammeters in AC                   |
|  | <b>-D</b>   | Voltmeters & Ammetes in DC                    |
|  | <b>-T</b>   | Temperature signals                           |
|  | <b>-P</b>   | Process signals                               |
|  | <b>-P6</b>  | Process & Potentiometer signals with 6 digits |
|  | <b>-C1</b>  | Counter. Ratemeter. Periodmeter               |
|  | <b>-F</b>   | Frecuency signals                             |
|  | <b>-CR</b>  | Chronometer                                   |
|  | <b>-R</b>   | Potentiometers signals                        |
|  | <b>-LC</b>  | Load Cells signals                            |
|  | <b>-RTU</b> | ModbusRTU input signal                        |
|  | <b>-485</b> | RS485 ASCII input signal                      |
|  | <b>-232</b> | RS232 ASCII input signal                      |
|  |             | Customized under request                      |

DIGITAL PANEL METER  
**SERIES M**  
Full Signal Ranges Available

45 YEARS 1969-2014

[www.fema.es / Serie M](http://www.fema.es / Serie M)

### Series M - With up to 6 digits

Digits ..... 4, 5 or 6 digits  
14 mm digit height  
red, green or white color  
view up to 5 meters

Front size ..... .96 x 48 mm  
for panel

Outputs ..... relays 1, 2 3, 4 or 6  
isolated analog output  
Modbus RTU, RS-485, RS-232

Power supply. .... .85 to 265 Vac / Vdc  
11 to 60 Vdc and 24 / 48 Vac

DIGITAL PANEL METERS  
**SERIES K**  
20 mm Digit Size

45 YEARS 1969-2014

[www.fema.es / Serie K](http://www.fema.es / Serie K)

### Series K - Larger distance view

Digits ..... 4 digits  
20 mm digit height  
red color  
view up to 8 meters

Front size ..... .96 x 48 mm  
for panel

Outputs ..... relays 1, 2 3, 4 or 6  
isolated analog output  
Modbus RTU, RS-485, RS-232

Power supply. .... .85 to 265 Vac / Vdc  
11 to 60 Vdc and 24 / 48 Vac

DIGITAL PANEL METERS  
**SERIES S**  
Compact Size 72x36 mm

45 YEARS 1969-2014

[www.fema.es / Serie S](http://www.fema.es / Serie S)

### Series S - Compact Size

Digits ..... 4 digits  
14 mm digit height  
red or green color  
view up to 5 meters

Front size ..... .72 x 36 mm  
for panel

Outputs ..... relays 1, 2 or 4  
isolated analog output  
Modbus RTU, RS-485, RS-232

Power supply. .... .85 to 265 Vac / Vdc  
11 to 60 Vdc and 24 / 48 Vac

DIGITAL PANEL METERS  
**SERIES B**

45 YEARS 1969-2014

[www.fema.es / Serie B](http://www.fema.es / Serie B)

### Series B - Big Meters

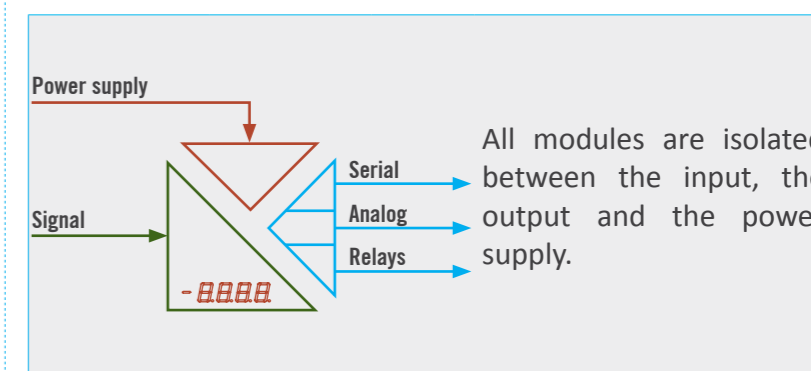
Digits ..... 4 or 6 digits  
60 mm and 100mm digit height  
red, green or white color  
view up to 25 and 50 meters

Front size ..... for panel, wall or hang

Outputs ..... relays 1, 2 or 3  
isolated analog output  
Modbus RTU, RS-485, RS-232

Power supply. .... -H 85 to 265 Vac and 120 to 370Vdc  
-L 11 to 36Vdc

|  |             |  |
|--|-------------|--|
|  | <b>-R1</b>  | 1 relay output<br>(NO/NC/Common)         |
|  | <b>-AO</b>  | 1 analog output<br>(4/20mA, 0/10Vdc,...) |
|  | <b>-T1</b>  | Transistor output                        |
|  | <b>-SSR</b> | SSR control ooutput                      |
|  | <b>-RTU</b> | ModbusRTU digital out-<br>put            |
|  | <b>-S4</b>  | RS485 digital output                     |
|  | <b>-S2</b>  | RS232 digital output                     |
|  | <b>-R2</b>  | Special module for 2<br>relay output     |
|  | <b>-R4</b>  | Special module for 4<br>relay output     |
|  | <b>-R6</b>  | Special module for 6<br>relay output     |



# INDUSTRY. Specifications



| Model                                     | -P   | -P6   | -T  | -A  | -D  | -F                                   | -C1  | -CR  | -R  | -LC   | -RTU  | -485  | -232  |
|---|--|---|---|---|---|--------------------------------------|--|--|---|---|---|---|---|
| <b>Main function</b>                      | PROCESS METER  | PROCESS & POT. METER 6 DITIGS   | TEMPERATURE METER   | AC VOLTMETER AND AC AMMETER   | DC VOLTMETER AND DC AMMETER   | AC FREQUENCYMETER                    | COUNTER, RATEMETER, PERIODMETER  | CHRONOMETER TIME COUNTER   | POTENTIOMETRIC METER  | LOAD CELLS METER  | MODBUS RTU REPEATER   | RS-485 ASCII REPEATER   | RS-232 ASCII REPEATER   |
|   |  |   |   |   |   |                                      |  |  |   |   |   |   |   |
| <b>Ranges</b>                             | 0/10Vdc, 4/20mA ±10Vdc,±20mA   | 0/10Vdc, 4/20mA ±10Vdc,±20mA & up to 5MΩhm  | Pt100 (2 and 3 wires) Thermocouples J, K, T, E, S, R, N, C, L and X   | 600Vac, 100Vac, 10Vac, 1Vac, 100mVac 5Aac, 1Aac                       | ±600Vdc, ±100Vdc, ±10Vdc, ±1Vdc, ±100mVdc ±5Adc,±1Adc                 | Frequency meter up to 900KHz @500Vac | Impulse counter Ratemeter (@ 900KHz) Periodmeter   | Hours, minutes, seconds, tenths and cents of seconds   | Potentiometers from 200R up to 5M passive mode  | Load cells from 5, 10, 15, 20, 30 and 100mV   | Modbus RTU protocol   | RS-485 ASCII protocol   | RS-232 ASCII protocol   |
| <b>Reading Series M (with dummy zero)</b> | 9999/-9999 (99990/-99990)  | 999999/-199999  | 9999/-9999 (99990/-99990)   | 9999/-9999 (99990/-99990)   | 9999/-9999 (99990/-99990)   | 999999/-199999                       | 999999/-199999   | 999999/-199999 23.59.99/-19.59.59  | 9999/-9999 (99990/-99990)   | 999999/-199999  | 999999/-199999  | 999999/-199999  | 999999/-199999  |
| <b>Reading Series K</b>                   |  |   |   |   |   |                                      |  | 9999/-1999 23.59/-19.59  | 9999/-1999  | 9999/-1999  | 9999/-1999  | 9999/-1999  | 9999/-1999  |
| <b>Reading Series S</b>                   | 9999/-1999   | ---   | 9999/-1999  | 9999/-1999  | 9999/-1999  | ---                                  | 9999/-1999   | 9999/-1999 23.59/-19.59  | ---   | 9999/-1999  | 9999/-1999  | 9999/-1999  | 9999/-1999  |
| <b>Reading B24 B44</b>                    |  |   |   |   |   |                                      |  | 999999/-199999 23.59.59/-19.59.59  | ---   | 999999/-199999  | 999999/-199999  | 999999/-199999  | 999999/-199999  |
| <b>Reading B26 B46</b>                    | 999999/-199999   | 999999/-199999  | ---   | ---   | ---   | ---                                  | 999999/-199999   | 999999/-199999 23.59.59/-19.59.59  | ---   | 999999/-199999  | 999999/-199999  | 999999/-199999  | 999999/-199999  |
| <b>Channels</b>                           | 1  | 1   | 1   | 1   | 1   | 1                                    | 2  | 1  | 1   | 1   | 1   | 1   | 1   |
| <b>Excitation voltage</b>                 | 5to20Vdc(max.35mA)   | 5to20Vdc(max.35mA)  | ---   | ---   | ---   | ---                                  | 5to18Vdc(max.75mA)   | 5to18Vdc(max.75mA)   | +5Vdc   | +5Vdc or +10Vdc   | ---   | ---   | ---   |
| <b>Notes</b>                              | active and passive signals   | ---   | ---   | Measure TrueRMS CAT-II and CAT-III AC or AC+DC coupling               | ---   | ---                                  | Highly configurable All type of sensors (NPN, PNP, ...) and quadrature signals Rear reset and/or front reset   | Independent start, stop and reset Highly configurable Rear reset and/or front reset                            | ---   | Up to 8 load cells. Special working mode at 50Hz and/or 60Hz Up to 60 acquisitions/second   | ---   | ---   | ---   |
| <b>Accuracy</b>                           | <0,05%   | <0,03%  | <0,2°C pt100 <2°/ <4° thermoc.  | <0,15% to <0,25%  | <0,10% to <0,15%  | <0,05%                               | ---  | <0,01%   | <0,15%  | <0,05%  | ---   | ---   | ---   |
| <b>Thermal drift</b>                      | 10ppm/° (offset)<br>25ppm/° (offset+span)  | 10ppm/° (offset)<br>25ppm/° (offset+span)   | 0,05°/° to 0,02°/° (offset)<br>0,02°/° to 0,2°/° (off.+sp.)   | <75 a <150ppm/° (off.)<br><100 to <200ppm/° (off.+sp.)                | 50ppm/° (offset)<br>100ppm/° (offset+span)                            | 20ppm/°                              | ---  | 20ppm/°  | 10ppm/°(offset)<br>35ppm/° (offset+span)  | 100ppm/°  | ---   | ---   | ---   |
| <b>Step response</b>                      | <120mSec.  | <300mSec.   | ---   | <300mSec.   | <210mSec.   | ---                                  | ---  | ---  | <200mSec.   | 17...63mSec.  | ---   | ---   | ---   |
| <b>Acquisitions</b>                       | 15/second  | 3,5/second  | 3/second  | 15/second   | 15/second   | ---                                  | ---  | ---  | 5/second  | <60/second  | ---   | ---   | ---   |
| <b>Specific functions</b>                 | Scalable Segment linearization Display filters 'Measure' function 'Field correction' 'Tare' function Alarms      | Scalable Segment linearization Display filters 'Measure' function 'Field correction' 'Tare' function Alarms | Configurable cold junction compensation Reading in °C or °F Manual offset for Pt100 / RTD Resolution Pt100 1° or 0,1° | Scalable Display filters 'Measure' function 'Field correction' Alarms | Scalable Display filters 'Measure' function 'Field correction' Alarms | Scalable Alarms                      | 8 function modes Scalable Configurable preset 'Fast' mode for fast counting 'Slow' mode for slow ratemeters 'Trigger Sense' function 'On alarm' function | 12 reading formats Hour and decimal Up and down counting Preset Special functions Trigger levels Cycle counter | Scalable Segment linearization Display filters 'Measure' function 'Field correction' 'Tare' function Alarms | Tare, Auto-tare, Maximum tare, scale factor, stock units, working mode for 50 and 60Hz, alarms, display filters, rear control key, fast access menu,... | Mode 'Slave' or 'Process' Function 'Watchdog' 16 or 32 bits registers Function 'Bus Activity' | Mode 'Slave', 'Process' or 'Text' Function 'Watchdog' Function 'Bus Activity' | Mode 'Slave', 'Process' or 'Text' Function 'Watchdog' Function 'Bus Activity' |
| <b>Common functions</b>                   | Function 'Fast access' / Function 'On power up' / 5 brightness levels / Memory of maximum and minimum / Password |   |   |   |   |                                      |  |  |   |   |   |   |   |

| Function                            | Description   | -P | -P (6) | -T | -A | -D | -F | -C1 | -CR | -R | -LC | -RTU | -485 | -232 |
|-------------------------------------|---|----|--------|----|----|----|----|-----|-----|----|-----|------|------|------|
| Function 'fast access' (key UP '▲') | Selected functions can be directed to the center key (key UP '▲') which will act as a <b>direct fast access to one or several of the following functions</b> : alarm 1 setpoint, alarm 2 setpoint, alarm 3 setpoint, memory of max, memory of min, "measure" function, preset value (for impulse counters), etc.  | ✓  | ✓      | ✓  | ✓  | ✓  | ✓  | ✓   | ✓   | ✓  | ✓   | ✓    | ✓    | ✓    |
| Special functions (key LEFT '◀')    | Selected functions can be <b>directed to the left key</b> (key LE '◀') such as reset (for impulse counters), 'tare' function (for process meters) and others.   | ✓  | ✓      | ✓  | ✓  | ✓  | ✓  | ✓   | ✓   | ✓  | ✓   | ✓    | ✓    | ✓    |
| Function 'scale'                    | Allows for 'signal - reading' scaling, by defining the 2 points of the scale (Display_low, Display_High, Input_Low and Input_High). Instruments working with impulse signals have a scaling based on multiplier and divider parameters.   | ✓  | ✓      |    | ✓  | ✓  | ✓  | ✓   |     | ✓  | ✓   |      |      |      |
| Segment linearization               | Up to 20 points can be defined for linearization of non linear signals.   | ✓  | ✓      |    |    |    |    |     |     | ✓  |     |      |      |      |
| Function 'field correction'         | Allows for offset (and span) field corrections. Activate 'Field Correction Low' to assign the actual input signal value to the 'Display_Low' reading. Activate 'Field Correction High' to assign the actual input signal value to the 'Display_High' reading.   | ✓  | ✓      |    | ✓  | ✓  |    |     |     | ✓  | ✓   |      |      |      |
| Function 'measure'                  | Allows for a short time visualization of the input signal, directly in mA or Vdc, without scaling. In case of problems with the measure, it <b>helps to identify if the signal reaching the instrument is correct or not</b> . Function accessible from the 'fast access' function key (key UP '▲').  | ✓  | ✓      |    |    |    |    |     |     |    | ✓   |      |      |      |
| Alarms                              | Series M alarms allow for :<br><ul style="list-style-type: none"> <li>• configure the alarm setpoint</li> <li>• configure a second setpoint in the same alarm, to create "alarm windows"</li> <li>• configure independent activation and deactivation delays</li> <li>• configure hysteresis</li> <li>• configure alarm to activate as maximum or minimum alarm</li> <li>• "inverted relay" function (see below)</li> <li>• "locked alarms" function (see below)</li> </ul> | ✓  | ✓      | ✓  | ✓  | ✓  | ✓  | ✓   | ✓   | ✓  | ✓   | ✓    | ✓    | ✓    |
| Alarms - 'inverted relay'           | Required <b>for safety applications</b> , the 'non alarm state' is associated with the active relay, and the 'alarm state' is associated with the deactivated relay.  | ✓  | ✓      | ✓  | ✓  | ✓  | ✓  | ✓   | ✓   | ✓  | ✓   | ✓    | ✓    | ✓    |
| Alarms - 'locked alarms'            | This function <b>requires operator intervention to deactivate the relays</b> . When an alarm activates, it will remain active even if the event that triggered the alarm has disappeared. To deactivate the alarm the operator must press the front LEFT key ('◀').   | ✓  | ✓      | ✓  | ✓  | ✓  | ✓  | ✓   | ✓   | ✓  | ✓   | ✓    | ✓    | ✓    |
| Alarms - 'on alarm'                 | Available for impulse counters, the 'on alarm' function allows to define the behaviour of the counter when an alarm activates. Options available are : counter reset, stop counter or continue.   |    |        |    |    |    |    | ✓   | ✓   |    |     |      |      |      |
| Function 'tare'                     | For weight applications. Function accessible from the 'special function' key (key UP '▲').  | ✓  | ✓      |    |    |    |    |     |     | ✓  | ✓   |      |      |      |

| Function                   | Description   | -P | -P (6) | -T | -A | -D | -F | -C1 | -CR | -R | -LC | -RTU | -485 | -232 |
|----------------------------|---|----|--------|----|----|----|----|-----|-----|----|-----|------|------|------|
| Function 'on power up'     | Allows for a <b>delay in the start-up time</b> after powering the instrument. During this time the instrument performs no measure and no control. After the delay time, the instrument functions as normal.<br>For process instruments, allows for activation of the 'Tare' function at instrument start-up.<br>For impulse counters, allows to activate the 'Reset' function at instrument start-up. | ✓  | ✓      | ✓  | ✓  | ✓  | ✓  | ✓   | ✓   | ✓  | ✓   | ✓    | ✓    | ✓    |
| Function 'brightness'      | Allows to <b>select the brightness of the instrument</b> to adapt to the environment luminosity or adapt to other closer instruments. Selectable 5 levels of brightness.  | ✓  | ✓      | ✓  | ✓  | ✓  | ✓  | ✓   | ✓   | ✓  | ✓   | ✓    | ✓    | ✓    |
| Memory of max and min      | Memory of max and min reading values. Accessible by associating functions MAX and MIN to the central UP key (key UP '▲') for fast access. To perform memory reset : visualize the memory value, press UP '▲', when message "rSt" appears, press '■'.  | ✓  | ✓      | ✓  | ✓  | ✓  | ✓  | ✓   | ✓   | ✓  | ✓   | ✓    | ✓    | ✓    |
| Password                   | Blocks access to the configuration menu (key SQUARE '■') by requesting a numerical code. Password function does not block access to fast access functions associated to central key UP '▲'. This allows to perform <b>configuration block to the general instrument parameters, while the operator can still access and modify setpoint values, for example.</b>                                      | ✓  | ✓      | ✓  | ✓  | ✓  | ✓  | ✓   | ✓   | ✓  | ✓   | ✓    | ✓    | ✓    |
| Cold junction compensation | By de fault the instrument works with automatic thermocouple cold junction compensation. This compensation <b>can be disabled to work with electronic thermocouple simulators.</b>  |    |        | ✓  |    |    |    |     |     |    |     |      |      |      |
| Reading in °C or °F        | Temperature instruments can be configured to display in °C or in °F.  |    |        | ✓  |    |    |    |     |     |    |     |      |      |      |
| Manual offset for Pt100    | For Pt100 / RTD applications, the operator can configure an offset value (in counts) that will be added to the reading. It allows to <b>compensate for different offsets</b> on different Pt100 / RTD probes.   |    |        | ✓  |    |    |    |     |     |    |     |      |      |      |
| Function 'sensor'          | For instruments working with impulse signals, the 'sensor' functions provides a fast and easy way to configure a sensor, by <b>selecting a predefined sensor from a list</b> (NPN, PNP, Namur, pick-up, inductive, ...). The instrument will automatically configure the associated parameters for the sensor selected (pull-up / pull-down resistors, trigger level, excitation voltage, etc).       |    |        |    |    |    |    | ✓   |     |    |     |      |      |      |
| Function 'trigger sense'   | For instruments working with impulse signals, the 'trigger sense' function allows to <b>locate the optimal level for the trigger</b> . A led positioned 'up' or 'down' is shown at the display, reflecting the status of the input signal level. When the led switches position continuously the optimal trigger level has been located..   |    |        |    |    |    |    | ✓   | ✓   |    |     |      |      |      |
| Function 'watchdog'        | For serial code instruments, function 'watchdog' defines the maximum waiting time before considering that communication with the master is lost. The watchdog error can activate an alarm if desired.   |    |        |    |    |    |    |     |     |    |     | ✓    | ✓    | ✓    |
| Function 'bus activity'    | For serial code instruments, it shows if there is bus activity in the data line. No activity reflects that there is no physical connection between master and slave.  |    |        |    |    |    |    |     |     |    |     | ✓    | ✓    | ✓    |
| Function 'averaging'       | Recursive filter applied to the reading. Simulates a RC filter.   | ✓  | ✓      |    | ✓  | ✓  |    |     |     | ✓  | ✓   |      |      |      |
| Function 'steps'           | Reading will be updated in steps of 2, 5, 10, 20 or 50 counts.  | ✓  | ✓      | ✓  | ✓  | ✓  |    |     |     | ✓  | ✓   |      |      |      |
| Function 'fixed digits'    | Fixes less significant digits to fixed values (typical to 0).   | ✓  | ✓      |    | ✓  | ✓  |    |     |     | ✓  | ✓   |      |      |      |
| Function 'left zeros'      | Aestivates visualization of left zeros.   | ✓  | ✓      |    | ✓  | ✓  |    |     |     | ✓  | ✓   |      |      |      |

# INDUSTRY. Modular structure



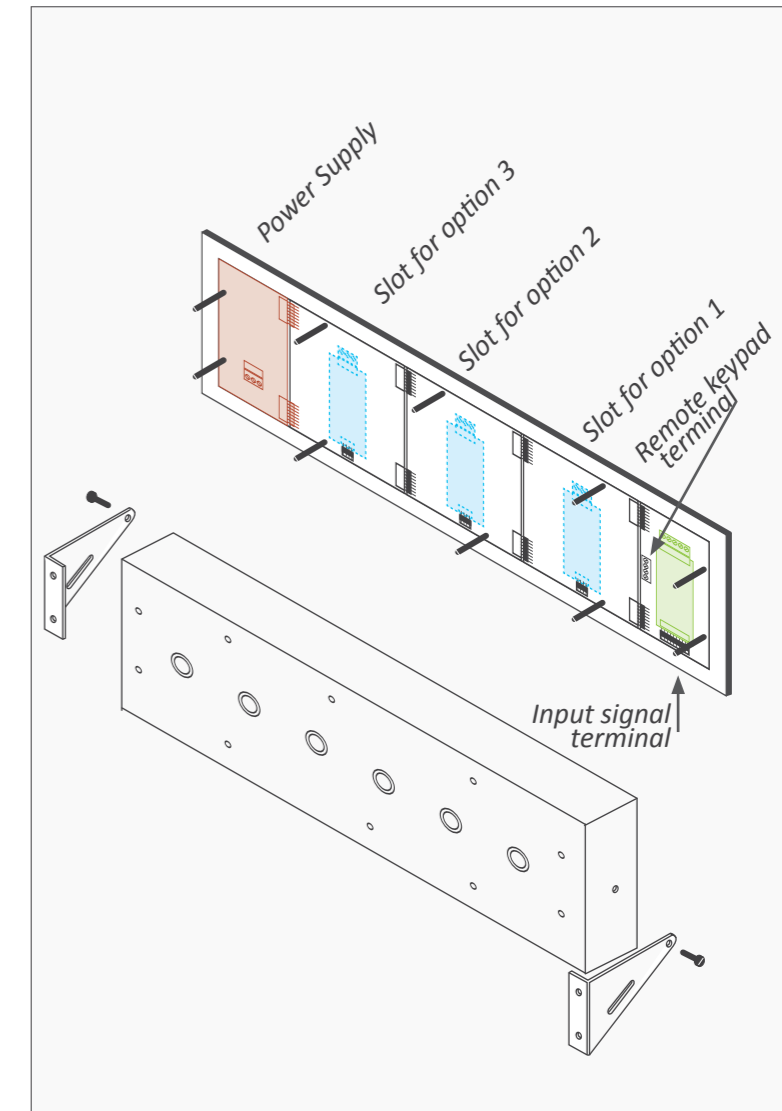
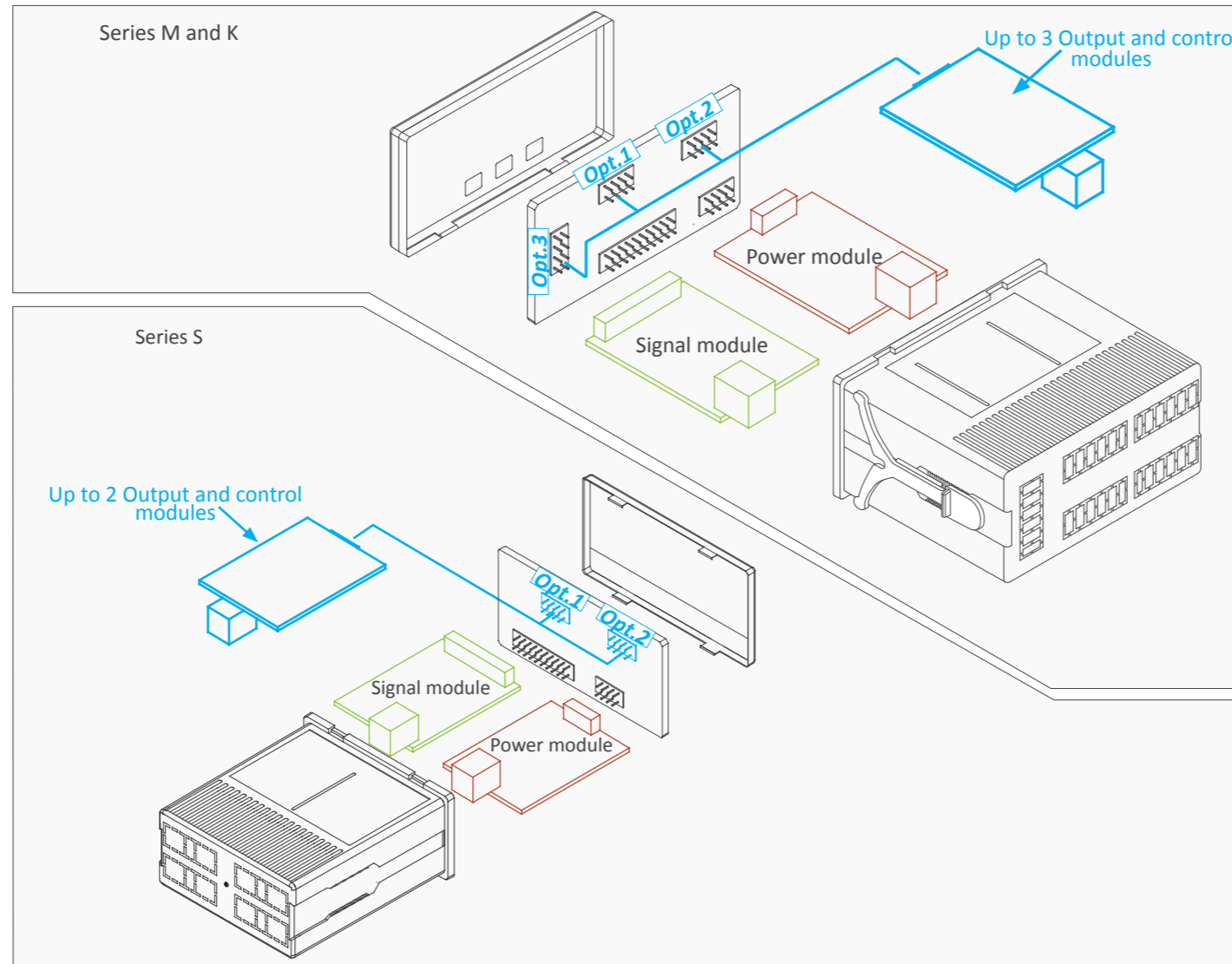
The INDUSTRY series of digital meters (Series B, Series K, Series M and Series S), are manufactured with modular structure. So same modules can be fitted in different Series units.

This modularity allow a reduced stock of standalone parts and a wide range of products ready to be served to customer.

The modularity is a plug-and-play mounting method. This is so easy that FEMA Sales Partner technicians or end user customer only needs its hands to mount the modules to get the full complete instrument.

Be careful, even that the module are the same, the female screw clamp terminal can be different in each Series.

This modular structure is available for FEMA Sales Partners in order to allow a reduced stock of pieces.



## INPUT SIGNAL modules Compatibility

| Modules :  | Serie B - B24 | Serie B - B26 | Serie B - B44 | Serie B - B46 | Serie K | Serie M | Serie S |
|--|---------------|---------------|---------------|---------------|---------|---------|---------|
| -P, -T, -A, -D, -C1, -CR, -RTU, -485, -232, -LC, -F and -R |               |               |               |               |         |         |         |
| Serie B - B24  | -             | x             | V             | x             | V       | x       | V       |
| Serie B - B26  | x             | -             | x             | V             | x       | V       | x       |
| Serie B - B44  | V             | x             | -             | x             | V       | x       | V       |
| Serie B - B46  | x             | V             | x             | -             | x       | V       | x       |
| Serie K  | V             | x             | V             | x             | -       | x       | V       |
| Serie M  | x             | V             | x             | V             | x       | -       | x       |
| Serie S  | V             | x             | V             | x             | V       | x       | -       |

## POWER SUPPLY modules Compatibility

| Modules :                          | Serie B - B24 | Serie B - B26 | Serie B - B44 | Serie B - B46 | Serie K | Serie M | Serie S |
|------------------------------------|---------------|---------------|---------------|---------------|---------|---------|---------|
| Power supply -H<br>Power supply -L |               |               |               |               |         |         |         |
| Serie B - B24                      | -             | V             | V             | V             | x       | x       | x       |
| Serie B - B26                      | V             | -             | V             | V             | x       | x       | x       |
| Serie B - B44                      | V             | V             | -             | V             | x       | x       | x       |
| Serie B - B46                      | V             | V             | V             | -             | x       | x       | x       |
| Serie K                            | x             | x             | x             | x             | -       | V       | V       |
| Serie M                            | x             | x             | x             | x             | V       | -       | V       |
| Serie S                            | x             | x             | x             | x             | V       | V       | -       |

## OUTPUT and CONTROL modules Compatibility

| Modules :                           | Serie B - B24 | Serie B - B26 | Serie B - B44 | Serie B - B46 | Serie K | Serie M | Serie S |
|-------------------------------------|---------------|---------------|---------------|---------------|---------|---------|---------|
| -R1, -A0, -RTU, -S4, -S2, -T1, -SRR |               |               |               |               |         |         |         |
| Serie B - B24                       | -             | V             | V             | V             | V       | V       | V       |
| Serie B - B26                       | V             | -             | V             | V             | V       | V       | V       |
| Serie B - B44                       | V             | V             | -             | V             | V       | V       | V       |
| Serie B - B46                       | V             | V             | V             | -             | V       | V       | V       |
| Serie K                             | V             | V             | V             | V             | -       | V       | V       |
| Serie M                             | V             | V             | V             | V             | V       | -       | V       |
| Serie S                             | V             | V             | V             | V             | V       | V       | -       |



## FEMA

50  
YEARS

1969-2019

FEMA ELECTRÓNICA is, for 45 years, dedicated to provide quality instrumentation to process automation companies. The trust demonstrated by our customers all these years are our major achievement, and also the measure of the quality of our products and services. Our goal is to also win also your trust.

Q

ISO 9001

Certified Quality

FEMA ELECTRÓNICA follows external audits to certify that the quality of our internal processes for product development, manufacturing, sales and customer care are according to the actual rules commonly accepted in industry. To this date, FEMA ELECTRÓNICA is certified according to ISO9001:2008, certification granted through TÜV Rheinland certification company. FEMA ELECTRÓNICA implemented its first ISO9001 quality certification back in 1999.

CE

EN-61010-1

Security

Instruments designed according to European security regulations EN-61010-1.

CE

EN-61326-1

Electromagnetic C.

Instruments designed according to European electromagnetic compatibility regulations EN-61326-1.

5

YEARS

Extended Warranty

All instruments provided with 2 year standard warranty against all manufacturing defects, as requested by the current European legislation. FEMA ELECTRÓNICA offers to his customers a free warranty extension from 2 to 5 years at no additional cost. To activate the Extended Warranty, follow the link <http://www.fema.es/warranty.asp> where you can fill the requested data for each FEMA product.

## More FEMA meters

### Series C

MOQ  
10 UNITS  
Series OEM



OEM multisignal

### Universal Input Signal

Real Universal input meter with Universal power supply. 40 ranges in a single unit. Reduce your stocks.

In a single reference all this signals: ~5 Aac, ~20 mAac, ~600 Vac, ~200 Vac, ~20 Vac, ~2 Vac, ~200 mVac, ~60 mVac, ±5 Adc, ±20 mAdc, ±600 Vdc, ±200 Vdc, ±20 Vdc, ±2 Vdc, ±200 mVdc, ±60 mVdc, frequency meter AC up to 100 Hz, probes Pt100 (2 and 3 wires), Pt500, Pt1000, probes Ni100, Ni200, Ni1000, probes NTC and PTC, thermocouples K, J, E, N, L, C, R, S, B, T, 4/20 mA, 0/10 Vdc, resistances 0/5 K, 0/50 K potentiometers.

At an incredible price...

### Series V

MOQ  
10 UNITS  
Series OEM



OEM Compact

### Universal Input Signal

Specially designed for machine builders. Small size, bright led, no buttons to be touch. Heavy industrial resistance. For control the important value of your machine.

Front panel 72x36mm, 4 digits view up to 5 meters.

Low deepness, a lot of combinations for your needs.

More than 40 ranges in a single unit.

### Instr. L35

MOQ  
10 UNITS  
Series OEM



OEM miniature

### Miniature meter

The smallest meter in the market with front panel 24x48mm. The favourite for the panel builders and centralized panel control boards. Isolated, heavy and a perfect view of the signal.

Process and Voltages signals accepted, 0/10 Vdc, 4/20 mA, ±200 Vdc, ±20 Vdc, ±2 Vdc, 0/50 mA, 0/10 mA, 0/20 mA.

More than 20 years in the market.

And it is also low deepness.

### Series SPECIALS

### Special instruments

Bar Leds

Autopowered meter

BCD code input signal

More precision instruments

External buttons

Special ranges input signals and/or output signals

Special power supply instruments

Special features instruments

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Bar leds. BCD code...

