



# LINE

## Communication Interfaces



Universal power supply



Hot-swappable plug in and out



ModBus RTU

## Presentation

JM Concept has developed an interfacing system to decentralize the analog inputs and outputs and to send the data back via fieldbus.

The principle is based on JM Concept's analog signal processing and isolation technology.

The system is fully modular and scalable. The inputs can be process inputs as well as electrical quantities, temperature (PT100, Thermocouple with CSF, output of other sensors), or even digital inputs. There are no limitations.

The unit is hot pluggable and any type of module can be added at any time, without limitation.

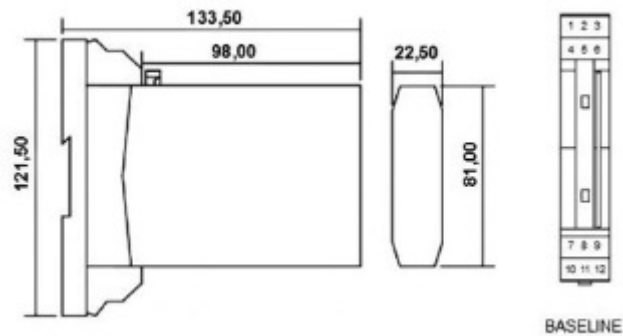
All measurements are transferred to a concentrator. There is a concentrator model adapted to each type of fieldbus. If the PLC evolves and the fieldbus is different, it is only necessary to change the concentrator, all the acquisition, with its isolation remains identical.

## Range

|         | Communication |          |             |          |            |
|---------|---------------|----------|-------------|----------|------------|
|         | Modbus TCP    | Profinet | Ethernet IP | Profibus | Modbus RTU |
| MIPLINE | ✓             |          |             |          |            |
| MPNLINE |               | ✓        |             |          |            |
| EIPLINE |               |          | ✓           |          |            |
| MPBLINE |               |          |             | ✓        |            |
| MRSLINE |               |          |             |          | ✓          |



## Dimensions



Dimensions : width : 22,5 mm - Height : 81 mm - Depth : 98 mm

**i** BASELINE boards are to be ordered separately  
 22,5 mm Case : Reference BL01ALV  
 For multi-transmitter boards, please consult us.

## Factory Settings

| Modbus parameters | Communication speed        | Synchronization                           | Delay at the start |                  |
|-------------------|----------------------------|---|--------------------|------------------|
|                   | 38400 bauds                | Manual                                    | 0 min 0 sec        |                  |
| Bus parameters    | Converting scenario values | On off-bus ground                         |                    |                  |
|                   | in full                    | The contact is closed                     |                    |                  |
|                   |                            | Scenarios in writing maintain their value |                    |                  |
| Scenarios         | Scenario 1                 |   | Scenario 2         |                  |
|                   | Slave number               | 101                                       | Slave number       | 101              |
|                   | Operation                  | Reading 4 floats                          | Operation          | Writing 2 floats |
|                   | Register                   | 6000                                      | Register           | 6002             |

For MIPLINE and EIPLINE :

| Ethernet parameters | IP address  | Mask          | Gateway       | DHCP         | BootP        |
|---------------------|-------------|---------------|---------------|--------------|--------------|
|                     | 192.168.0.1 | 255.255.255.0 | 192.168.0.254 | Desactivated | Desactivated |

## Characteristics

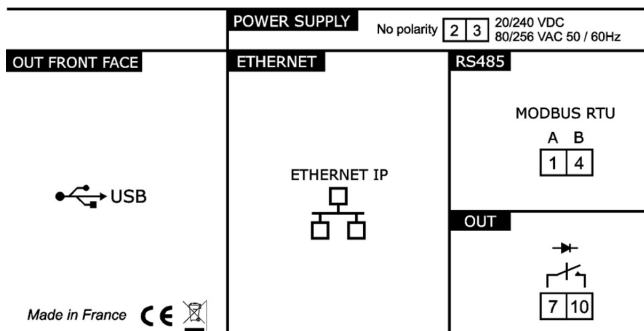
|   |   |
|---|---|
| <b>Communication</b>  |   |
| Modbus TCP  | MIPLINE   |
| Profinet  | MPNLINE   |
| Ethernet IP   | EIPLINE   |
| Profibus  | MPBLINE   |
| Modbus RTU  | MRSLINE   |
| <b>Isolation</b>  |   |
| Supply / RS485-USB-digital output-connector (RJ45 or Sub-D9 or 6 points connector) on the front | 4200Vrms, 50Hz, 1mn   |
| USB / RS485 / digital output / connector (RJ45 or Sub-D9 or 6 points connector) on the front    | 2500Vrms, 50Hz, 1mn   |
| <b>Auxiliary source</b>   |   |
| Voltage supply  | 20-240Vdc or 90-230Vac 50/60Hz                              |
| <b>General characteristics</b>  |   |
| Maximum of consumption  | MPILINE, MPNLINE, EIPLINE : <7VA<br>MPNLINE, MRSLINE : <6VA |
| Operating temperature   | -10°C ... +60°C   |
| Storage temperature   | -25°C ... +80°C   |
| Protection factor   | IP20 Black self-extinguishing polyamide housing V0          |

## Functions

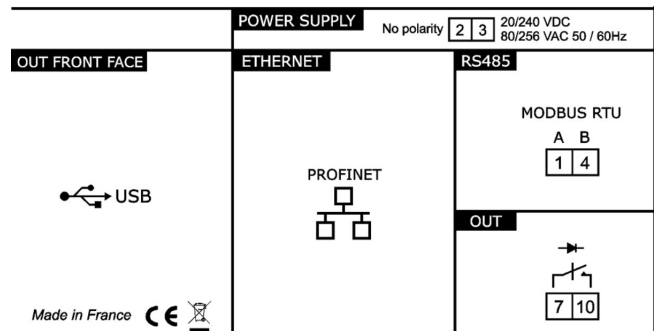
|                                |   |
|--------------------------------|---|
| <b>Display functions</b>       |   |
| LED indicators                 | 1 green LED   |
| Programming                    | Programming via USB with IXLIN software   |
| <b>Input</b>                   |   |
| Inputs display                 | The IXLIN application allows to visualize the reading and writing values of the scenarios   |
| <b>Smart functions</b>         |   |
| Scenarios                      | Allows you to set up read and write requests between the concentrator and the input/output modules  |
| <b>Outputs</b>                 |   |
| Visualization of the outputs   | The IXLIN application allows to visualize the reading and writing values of the scenarios   |
| <b>Links and communication</b> |   |
| RS485 MODBUS RTU               | <p>RS485 MODBUS RTU bidirectional digital link allowing to :</p> <ul style="list-style-type: none"> <li>• recover the measurements and transmit them in digital format</li> <li>• configure and control the device</li> </ul> <p>Programmable delay for starting the serial communication link RS485 Modbus RTU</p> <p>Choice of transmission speed (from 1200 bauds to 115200 bauds)</p> |
| Ethernet                       | <p><b>MIPLINE, MPNLIN, EIPLIN</b></p> <p>Bi-directional link via RJ45 port allowing to read or write PLC register values. The LIN acts as a concentrator between the Ethernet network and the Modbus RTU network. A PLC on the Ethernet network can communicate with JM devices located on the same RS485 bus as the LIN.</p>   |
| Serial port                    | <p><b>MRSLIN, MPBLIN</b></p> <p>Bi-directional link via the serial port allowing to read or write the values of the PLC registers. The LIN acts as a concentrator between the PLC's serial network and the Modbus RTU network. A PLC can communicate with JM devices located on the same RS485 bus as the LIN.</p>  |
| Digital bus                    | Access to the digital bus via the USB socket and the <b>IXLIN</b> software (when transmitters are used on the interface boards)   |
| USB front                      | USB front panel to connect directly to the USB port of a PC for programming via the IXLIN software  |

## Wiring

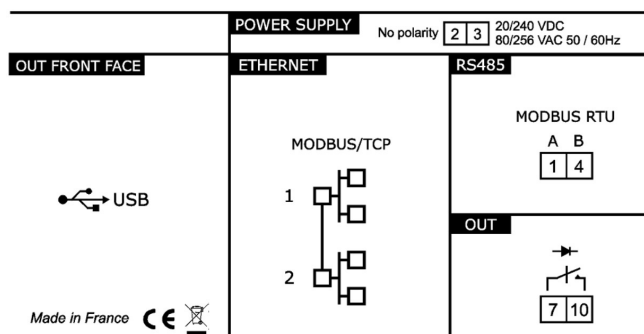
### EIPLINE



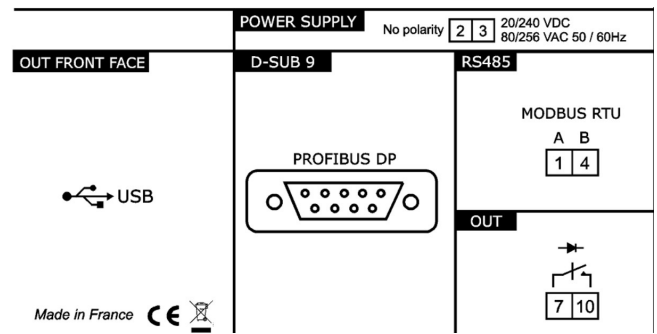
### MPNLINE



### MIPLINE



### MPBLINE



### MRSLINE

