

## μCvJ/J4



### Features

- Universal power supply:**  
20 to 250 Vac and 20 to 250 Vdc
- 4 bidirectional voltage calibers:**  
±10mV, ±20mV, ±50mV, ±100mV
- Supply of the bridge:**  
Programmable: 5 or 10V  
30mA max. (μCvJ), 120mA max. (μCvJ4)
- Response time:**  
average: 150ms in standard  
(5ms max. if option F)
- Isolated analog output (A)**  
current: 0-4-20mA (active/passive)  
or voltage: 0-10V.
- Relay outputs (R):** 2 change-over relays  
(8A/250 VAC on resistive load).
- Digital communications (N)** isolated  
RS485 Modbus/Jbus
- Self-diagnosis.**
- Isolation input / outputs / supply.**  
*Mode simulation: allows validating the configuration or the installation.*
- Programming either with micro-console or with the PC software SlimSET via a standard USB / μUSB cable.*

## Configuration

Easy programming with a micro-console or with the PC software SlimSET (via a standard USB / μUSB cable).

### Programming with Micro-console

The rear-lit graphical LCD with tactile keyboard allows the visualization of the following information :

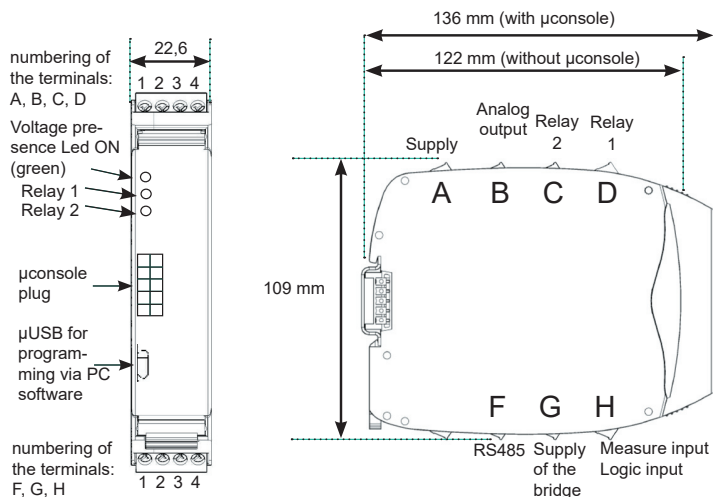
- the value of the measure with its unit,
- the value of the analog output,
- the tag name of the product,
- the status of the relay outputs and the RS485 communication.
- Scrolling messages for help to the programming in several languages
- Passcode protected programming

### Programming by PC: SlimSET

Software for programing (Windows environment) allowing:

The storage of configurations as files which can be consulted, modified, duplicated or loaded into the converters.  
The edition and printing of files with or without having a converter connected.

## Dimensions



## Features

- Power supply:** 20 to 250 Vac and 20 to 250 Vdc
- Consumption:** 4 W max. 7 VA max. μCvJ4  
2.5 W max. 5 VA max. μCvJ
- Dielectric withstanding:** 3.0 kV-50Hz-1min.
- Operating temperature:** -20 to +60°C
- Storage temperature:** -20 to +70°C
- Installation:** Pollution degree 2 / voltage surge II
- Protection: housing / terminals: IP 20
- Removable terminal blocks for screwed connectings (2.5 mm<sup>2</sup>, flexible or rigid)
- Weight: 290g (with packaging)
- Self-extinguishing case of black UL 94VO PA66.
- Mounting in cabinet: latching on symmetrical DIN rail.

### Compliance with standards:

- Low Voltage Directive 2014/35/UE ..... EN 61010-1
- Directive ATEX 2014/34/UE area 2 ..... EN 60079-0
- ..... EN 60079-15
- Directive EMC 2014/30/UE ..... EN 61326-1

### Marking:



II 3 G Ex nA IIC T4 Gc

## Coding

Type

μCvJ  
μCvJ4

### Outputs:

- A** analog I/U isolated
- R** 2 change-over relays
- N** digital RS 485
- F** fast version
- T24** logic input 24V ±30%
- T5** logic input 5V TTL

### Available versions:

|              |   |    |     |   |
|--------------|---|----|-----|---|
| μCv J/J4 (F) | A | AR | ARN | N |
|--------------|---|----|-----|---|

(consult with us for different configurations)

**Order example:** For a converter with gauge bridge input 350Ω + 1 analog output + 2 relays request the reference: **μCvJ AR**

- Standard programming cable USB type A male to μUSB type B male: reference **C1-μUSB**

# Features

## Measure input

- 4 bidirectional voltage calibers:  
 $\pm 10\text{mV}$ ,  $\pm 20\text{mV}$ ,  $\pm 50\text{mV}$ ,  $\pm 100\text{mV}$   
 - Accuracy 0.05% of the measure range (MR) at  $23^\circ\text{C}$   
 - Thermal drift  $< 150\text{ppm}$  of the MR/ $^\circ\text{C}$   
 - Measurable overrange from -5% to +5% of the MR  
 - Input impedance  $> 100\text{M}\Omega$   
 - Common mode rejection rate: 120dB  
 - Serial mode rejection rate: 70dB  
 - (in standard version, response time 200ms max.)  
 - Zero drift compensation  
 - Enlarging effect  
 - Function special linearization in 20 points

## Supply of the 4 or 6-wire bridge:

- Programmable  $5\text{V} \pm 0.1\%$  or  $10\text{V} \pm 0.1\%$
- For a bridge of  $350\Omega$ , 30mA max. ( $\mu\text{CvJ}$ )
- For 4 bridges of  $350\Omega$ , 120mA max. ( $\mu\text{CvJ4}$ )

## Logic input (option T.O.R.)

- 1 isolated logic input  
 -  $24\text{Vdc} \pm 30\%$  (option T24), or  $5\text{V TTL}$  (option T5)  
 - Programmable function:  
 display hold,  
 moving of the decimal point,  
 function tare,  
 0 reset of the min. max.

## Outputs

| Code     | Types of OUTPUTS                                                    |                        | Features                                                                                                                                                                                         |
|----------|---------------------------------------------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A</b> | 1 analog                                                            | Current active/passive | Current: Direct or reversed 0-20mA<br>Load impedance $\leq L_r 600\Omega$<br>Voltage: Direct or reversed 0-10V<br>Load impedance $\geq L_r 5\text{K}\Omega$                                      |
|          |                                                                     | Voltage                | Accuracy: 0.1% in relation to the display<br>Ripple: 0.2%                                                                                                                                        |
| <b>R</b> | 2 change-over relays                                                |                        | 2 setpoints per relay<br>configurable over the whole measure range.<br>Hysteresis programmable from 0 to 100%.<br>Time delay programmable from 0 to 999.9 sec.<br>(8A/250 VAC on resistive load) |
| <b>N</b> | Digital data link RS485 Protocole MODBUS/JBUS (EIA RS485) isolated. |                        |                                                                                                                                                                                                  |

## Response time of the outputs:

(for a variation from 10 to 90% of the input signal)

Max. response time: 200ms in standard version (5ms if option F)

Add 10 ms for the response time on the relay outputs.

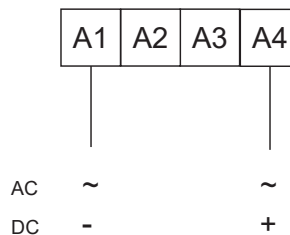
## Galvanic isolation:

3.0kV-50Hz-1min. between supply, measure input, logic input, analog output, relay output 1, relay output 2, RS485.

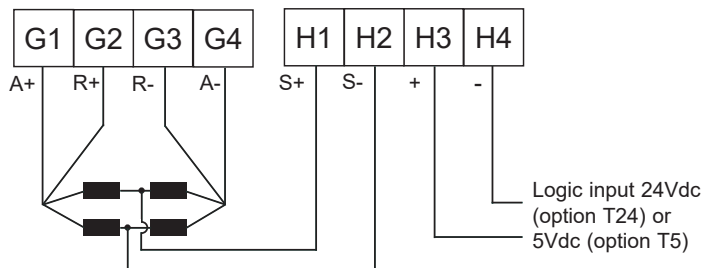
1kV-50Hz-1min. between analog output and RS485.

# Connectings

## Power supply



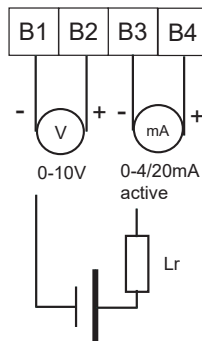
## Inputs



For a connection in 4-wire connect the terminal G1 to the terminal G2, and the terminal G3 to the terminal G4.

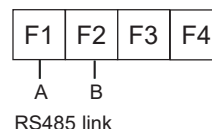
## Outputs

### Analog output (option A)



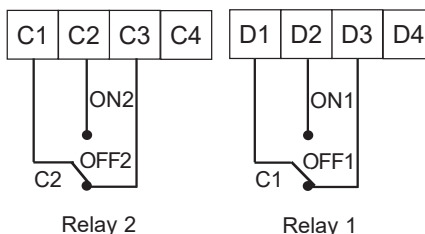
0-4/20mA passive  
external source 30V max.

### RS485 output (option N)



The voltage output and the current output are not independent. One type of output only can be activated, choice programmable (V or mA).

### relay outputs (option R)



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