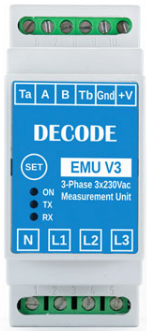
EMU

Electricity Measurement Units

Highlights

- **Three types of inputs**
- **Communication protocol: modbus RTU, addresses in range 1-247, broadcast address 0**
- **Supported rates: 1200, 2400, 4800, 9600, 19200, 38400, 57600 and 115200 bps**
- **Data formats available: 8 bits with No Parity, Even Parity or Odd Parity**
- **Factory defaults: 9600bps, 1 start, 8 data, parity none, Modbus address 1**
- **Screw terminals connection**
- **Power requirements: 10-28V DC / consumption less than 1W**
- **Measurement isolation 3000 V DC**
- **Plastic enclosure (35 x 86 x 58 mm), DIN rail 35mm mountable**



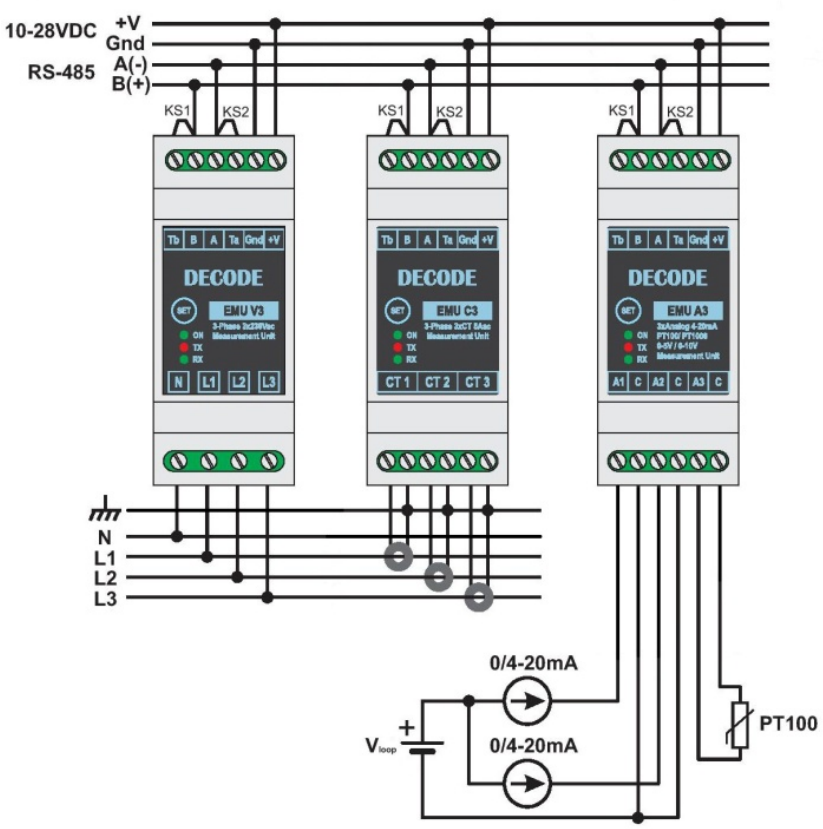
Description

DECODE EMU devices represent series of measuring devices for measurement of AC and DC voltages and currents with integrated RS-485 Modbus connection.
There are three different device options supported where the third one, with analogue input unit, offer several subtypes.

- **EMU V3** - for AC voltages measurement 3 x 230V AC
- **EMU C3** - for AC currents measurement (current transformers) 3 x CT 5A AC
- **EMU A3-TTT** - 3 x analogue input measurement (TTT designates input type, example: device EMU A3-001 features first two inputs 0/4-20mA where the third one features PT100 input)

Technical specification

DECODE EMU measuring devices	EMU V3	EMU C3	EMU A3 – TTT				
			Type T = 0	Type T = 1	Type T = 2	Type T = 3	Type T = 4
Measured parameters	L1, L2, L3, L12, L23, L31, frequency		CT1, CT2, CT3	0-20mA, 4-20mA input resistance 40 Ω	PT 100	PT 100	0-5V DC	0-10V DC
Measurement range	0-250V AC rms	0-5A AC rms	0-25mA DC	from -50 ^{0}C to +150 ^{0}C	from -50 ^{0}C to +150 ^{0}C	0-5V DC	0-10V DC
Resolution	10mV rms	1mA rms	0.01mA	0.1 ^{0}C	0.1 ^{0}C	1mV	1mV
Measurement type	True RMS		-	-	-	-	-



Connection diagram

Jumpers KS1 and KS2 are to be placed only if RS-485 line termination is required. For short distances the termination is not needed. Distances longer than 100m, as well as presence of notable disturbances, require line termination at one of slave devices, specifically the one positioned at the end of line.

DECODE d.o.o.

Bulevar Nikole Tesle 30A

11080 Belgrade, Serbia

Tel: +381 11 311 0027

E-mail: office@decode.rs

www.decode.rs

Legal notice

Disclaimer

Decode has used reasonable care in preparing the information included in this document, but does not warrant that such information is error free.

Decode, its associates, representatives, employees, and others acting on its behalf disclaim any and all liability for errors, inaccuracies, or incompleteness contained in any datasheet or in any other disclosure relating to any product.

In the interest of continuous product development, the Decode reserves the right to make improvements to this manual and the products described in it at any time and without prior notification or obligation.

The use of the product is at sole discretion of the user. Decode cannot be held responsible for any damages arising due to use of this product and makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product.

Note: The specifications in this document are valid as of the listed versions of software and/or hardware. Revised versions of this document, as well as software and driver updates are available in the download area of the Decode web site.