

**MID ENERGY  
METERS  
CATALOGUE**



# ALGODUE MID ENERGY METERS

Cover  
of the sealable  
terminals



MID  
tested and  
verified

Wide LCD display

Buttons for  
configuration  
and display of  
measurements

Metrological  
LED

DIN rail  
mounting



# APPLICATIONS



## RENEWABLE ENERGY

To measure the electrical energy produced by hydroelectric, wind, geothermal, photovoltaic, etc. production plants and to invoice this data, the best option is an Algodue MID energy meter.



## CHARGING STATIONS FOR ELECTRIC VEHICLES

The market for electric vehicles is constantly expanding and there is a growing need for charging stations. In order to account for electricity consumption inside each charging station, **MID energy meters** are needed.

Algodue has been chosen by some of the most prestigious manufacturers of charging stations because the characteristics of his MID energy meters are perfect to operate inside these stations.



## INDUSTRIAL AND CIVIL USES

Algodue meters are used in projects where there is a need for accounting or billing consumption in campsites, shopping centres, residential centres, civil and/or industrial buildings, etc. (submetering) or to do the totalization of the electric energy in the industry for each single line or machine.

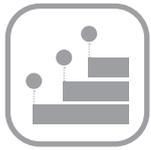


# FEATURES



## INFORMATION MANAGEMENT

Monitoring the points and periods of higher electricity consumption allows you to quickly identify sources of energy wastage.



## TARIFF MANAGEMENT

Algodue meters equipped with a tariff input (all models except Ethernet, UEM80-2D, UEM40-2C and UEC40-2C ones) allow the consumption of active, reactive and apparent energy to be split into two separate tariff registers to optimise energy costs.



## ENERGY SAVING

The data provided by the meter makes it possible to implement a policy to eliminate unnecessary consumption and inefficiencies in the installation. In this way, resources can be used more efficiently.



## REMOTE MANAGEMENT

Algodue UEM meters allow the creation of a centralised communication network for the control and automatic transfer of consumption data.



## PULSE COUNTING

Thanks to the S0 output for pulse emission, Algodue meters offer simple and immediate monitoring of consumption.



## SUBMETERING

Algodue's MID certified energy meters enable tax-valid measurements (billing).



# ALGODUE BENEFITS



## ACCURACY

Active energy class B or C according to EN 50470-3 (MID). Superior accuracy even at low currents.



## WIDE TEMPERATURE RANGE

Some Algodue energy meters have an operating temperature range of  $-25^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$ . This particular feature increases the number of applications.



## ETHERNET VERSION

The Ethernet version of the Algodue meters has a built-in webserver, memory (8M) and allows manual or automatic transfer of recorded data via a predefined and **FREE FTP PUSH** protocol.



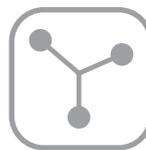
## FREE SOFTWARE

The MODBUS MASTER and MBUS MASTER software can be downloaded free of charge from [www.algodue.com](http://www.algodue.com) and allow full management of the energy meter.



## MINIMUM INVESTMENT - WIDE POSSIBILITIES

Algodue UEC meters offer the possibility of pulse-only use. And they offer also the possibility of combining the specific communication module on the basis of subsequent and new applications.



## INSTALLATION DIAGNOSTICS

Algodue meters indicate the phase sequence and diagnostics of signal polarity errors in connection, in order to ensure correct installation.



# A WIDE RANGE



**THE MOST COMPLETE RANGE OF MID ENERGY METERS MADE IN ITALY ON THE MARKET**

Algodue's wide range of energy solutions includes single-phase and three-phase meters for consumption measurement and control, with MID certification:

**UEM RANGE** for remote management via built-in communication port

MODEL	VERSION		CURRENT INPUTS		COMMUNICATION PORT			MEMORY 8MB	ACCURACY CLASS	MAXIMUM OPERATING TEMPERATURE	INPUTS / OUTPUTS		MID
	SINGLE PHASE	THREE PHASE	CT	DIRECT	RS485	MBUS	ETHERNET				TARIFF INPUT	S0 OUTPUT	
UEM1P5-4D R		•	•		•				B	55°C	•	(1 S0)	OPT.
UEM1P5-D M		•	•			•			B	55°C	•	(1 S0)	OPT.
UEM1P5-4D E		•	•				•	•	B	55°C		(1 S0)	OPT.
UEM6C-4D R		•	•		•				C	55°C	•	(1 S0)	OPT.
UEM6C-4D M		•	•			•			C	55°C	•	(1 S0)	OPT.
UEM6C-4D E		•	•				•	•	C	55°C		(1 S0)	OPT.
UEM40-2C R	•			40A	•				B	55°C		(1 S0)	OPT.
UEM40-2C M	•			40A		•			B	55°C		(1 S0)	OPT.
UEM40-2C R70	•			40A	•				B	70°C		(1 S0)	OPT.
UEM80-2D R	•			80A	•				B	55°C		(1 S0)	OPT.
UEM80-2D M	•			80A		•			B	55°C		(1 S0)	OPT.
UEM80-2D E	•			80A			•	•	B	55°C			OPT.
UEM63-4D R70		•		63A	•				B	70°C	•	(1 S0)	OPT.
UEM80-4D R		•		80A	•				B	55°C	•	(1 S0)	OPT.
UEM80-D M		•		80A		•			B	55°C	•	(1 S0)	OPT.
UEM80-4D E		•		80A			•	•	B	55°C		(1 S0)	OPT.

**UEC RANGE** with the optical port that can be combined with external communication modules

MODEL	VERSION		CURRENT INPUTS		COMMUNICATION PORT			MEMORY 8MB	ACCURACY CLASS	MAXIMUM OPERATING TEMPERATURE	INPUTS / OUTPUTS		MID
	SINGLE PHASE	THREE PHASE	CT	DIRECT	RS485	MBUS	ETHERNET				TARIFF INPUT	S0 OUTPUT	
UEC1P5-D		•	•						B	55°C	•	(2 S0)	OPT.
UEC6C-X		•	•						C	55°C	•	(2 S0)	OPT.
UEC40-2C	•			40A					B	55°C		(1 S0)	OPT.
UEC80-D		•		80A					B	55°C	•	(2 S0)	OPT.
UEC80-2D	•			80A					B	55°C	•	(2 S0)	OPT.

**COMMUNICATION MODULES** to be combined with UEC series energy meters

MODEL	SIZE	TYPE OF POWER SUPPLY	POWER SUPPLY RANGE	COMMUNICATION PORT	COMMUNICATION PROTOCOL	MEMORY	SOFTWARE INCLUDED
RS485	1 DIN module	AUX	185-285VAC	RS485	Modbus RTU/ ASCII		Modbus Master
M-Bus	1 DIN module	Through bus connection	32VDC	M-Bus	M-Bus		M-Bus Master
Lan Gateway	2 DIN modules	AUX	185-285VAC	Ethernet	HTTP, HTTPS, FTP, NTP, Modb TCP	25MB	Modbus Master



# UEM SERIES



EN 50470-1  
EN 50470-3



ETHERNET  
RS485 & M-BUS



THREE PHASE &  
SINGLE PHASE



SO OUTPUT FOR  
PULSE EMISSION



ACCURACY  
CLASS B OR C



UEM40



UEM40-2C R70



UEM80-2D



UEM1P5



UEM6C



UEM63-4D R70



UEM80

- With built-in communication
- Remote management
- For tax and invoicing purposes
- Bi-directional measurements in 4 quadrants

- Easy and quick to install and set up
- Extremely compact
- Large LCD display with backlit
- Single phase: direct connection up to 40A and 80A

- Three phase: 1/5A with CT
- Three phase: direct connection up to 80A
- Extremely versatile
- Extended temperature range (-25° / +70°C) for UEM40-2C R70 and UEM63-4D R70 models



# UEM40

40A single phase energy meter with built-in communication

**UEM40-2C R • UEM40-2C M**



- Direct connection up to 40 A
- Fully bi-directional 4-quadrant measurements for all energies and powers
- UEM40-2C R for RS485 Modbus RTU communication
- UEM40-2C M for M-Bus communication
- High reliability
- 1 DIN module compact size
- Quick installation
- S0 output for energy pulse emission
- LCD display with 7 main digits
- Available with MID certification

## TECHNICAL FEATURES

### Power supply

- Power supplied from the voltage circuit
- Nominal measurement voltage  $\pm 20\%$
- Max consumption: 1.5 VA - 1 W
- Nominal frequency: 50/60 Hz

### Voltage & frequency

- Nominal values: 230 V 50/60 Hz

### Current

- Starting current  $I_{st}$ : 20 mA
- Minimum current  $I_{min}$ : 250 mA
- Transitional current  $I_{tr}$ : 500 mA
- Reference current  $I_{ref} (I_b)$ : 5 A
- Maximum current  $I_{max}$ : 40 A

### RS485 Modbus communication

- Port: RS485
- Protocol: Modbus RTU
- Communication speed: 2400, 4800, 9600, 19200, 38400 bps
- Unit load: 1/8

### M-Bus communication

- Port: wired (EN 1434-3)
- Protocol: M-Bus
- Communication speed: 300, 2400, 9600 bps
- Unit load: 1

### Accuracy

- Active energy class 1 according to IEC/EN 62053-21 (NO MID)
- Active energy class B according to EN 50470-3 (MID)
- Reactive energy class 2 according to IEC/EN 62053-23

### S0 output

- Passive optoisolated
- Maximum values: 27 V<sub>DC</sub> - 27 mA
- Meter constant: 1000 imp/kWh  
*The measuring unit (imp/kWh, imp/kvarh, imp/kVAh) changes according to the assigned counter (kWh, kvarh, kVAh)*
- Pulse length: 100  $\pm$  0.5ms

### Metrological LED

- Meter constant: 5000 imp/kWh
- Pulse length: 4  $\pm$  0.1ms

### Environmental conditions

- Operating temperature: -25°C ... +55°C
- Storage temperature: -40°C ... +75°C
- Humidity: 80% max without condensation
- Protection degree: IP51 frontal part -IP20 terminals

ORDER CODE	VOLTAGE AND FREQUENCY INPUT	COMMUNICATION PORT			OPTIONS		
	SELF-POWERED	NONE	RS485 MODBUS	M-BUS	MID	MID S	RESET
<b>UEM40-2C R</b>							
1109.0001.0001	230V 50/60Hz		•		•		
1109.0002.0001	230V 50/60Hz		•			•	
1109.0003.0001	230V 50/60Hz		•				•
<b>UEM40-2C M</b>							
1109.0004.0001	230V 50/60Hz			•	•		
1109.0005.0001	230V 50/60Hz			•		•	
1109.0006.0001	230V 50/60Hz			•			•

Some models can be available for 110V, 115V, 120V or 127V 60Hz power supply. Please contact the sales department for further details.



# UEM40-2C R70

## 40A single phase energy meter with built-in communication



- Up to 70°C operating temperature
- For RS485 Modbus RTU communication
- Direct connection up to 40 A
- Fully bi-directional 4-quadrant measurements for all energies and powers
- High reliability
- 1 DIN module compact size
- Quick installation
- S0 output for energy pulse emission
- LCD display with 7 main digits
- Available with MID certification

### TECHNICAL FEATURES

#### Power supply

- Power supplied from the voltage circuit
- Nominal measurement voltage  $\pm 20\%$
- Max consumption: 1.5 VA - 1 W
- Nominal frequency: 50/60 Hz

#### Voltage & frequency

- Nominal values: 230 V 50/60 Hz

#### Current

- Starting current  $I_{st}$ : 20 mA
- Minimum current  $I_{min}$ : 250 mA
- Transitional current  $I_{tr}$ : 500 mA
- Reference current  $I_{ref}$  ( $I_b$ ): 5 A
- Maximum current  $I_{max}$ : 40 A

#### RS485 Modbus communication

- Port: RS485
- Protocol: Modbus RTU
- Communication speed: 2400, 4800, 9600, 19200, 38400 bps
- Unit load: 1/8

#### Accuracy

- Active energy class 1 according to IEC/EN 62053-21 (NO MID)
- Active energy class B according to EN 50470-3 (MID)
- Reactive energy class 2 according to IEC/EN 62053-23

#### S0 output

- Passive optoisolated
- Maximum values: 27 V<sub>DC</sub> - 27 mA
- Meter constant: 1000 imp/kWh  
*The measuring unit (imp/kWh, imp/kvarh, imp/kVAh) changes according to the assigned counter (kWh, kvarh, kVAh)*
- Pulse length: 100  $\pm 0.5$ ms

#### Metrological LED

- Meter constant: 5000 imp/kWh
- Pulse length: 4  $\pm 0.1$ ms

#### Environmental conditions

- Operating temperature: -25°C ... +70°C
- Storage temperature: -40°C ... +75°C
- Humidity: 80% max without condensation
- Protection degree: IP51 frontal part -IP20 terminals

ORDER CODE	VOLTAGE AND FREQUENCY INPUT	COMMUNICATION PORT	OPTIONS		
	SELF-POWERED	RS485 MODBUS	MID	MID S	RESET
<b>UEM40-2C R70</b>					
1109.0019.0001	230V 50/60Hz	•	•		
1109.0020.0001	230V 50/60Hz	•		•	
1109.0021.0001	230V 50/60Hz	•			•



# UEM80-2D

80A single phase energy meter with built-in communication

**UEM80-2D R • UEM80-2D M  
UEM80-2D E**



- UEM80-2D R for RS485 Modbus RTU/ASCII communication
- UEM80-2D M for M-Bus communication
- UEM80-2D E for Ethernet (Modbus TCP) communication
- Direct connection up to 80 A
- Fully bi-directional 4-quadrant measurements for all energies and powers
- Class B according to EN 50470-3 (MID)
- S0 output for energy pulse emission
- LCD display with 7 main digits
- Available with MID certification
- 8 MB for data recording and automatic/manual data transferring (only ETHERNET model)

## TECHNICAL FEATURES

### Power supply

- Power supplied from the voltage circuit
- Nominal measurement voltage  $\pm 20\%$
- Max consumption: 7.5 VA - 0.5 W
- Nominal frequency: 50/60 Hz

### Voltage range & frequency

- 230 ... 240 V 50/60 Hz

### Current

- Starting current  $I_{st}$ : 20 mA
- Minimum current  $I_{min}$ : 250 mA
- Transitional current  $I_{tr}$ : 500 mA
- Reference current  $I_{ref}$  ( $I_b$ ): 5 A
- Maximum current  $I_{max}$ : 80 A

### RS485 Modbus communication

- Port: RS485
- Protocol: Modbus RTU/ASCII
- Communication speed: 300 ... 57600 bps

### M-Bus communication

- Port: wired (EN 1434-3)
- Protocol: M-Bus
- Communication speed: 300 ... 38400 bps
- Unit load: 1

### Ethernet communication

- Port: 10/100 Base T
- Protocol: HTTP, NTP, DHCP, Modbus TCP
- Communication speed: 10/100 Mbps
- 8 MB for data recording
- Web server

### Accuracy

- Active energy class 1 according to IEC/EN 62053-21 (NO MID)
- Active energy class B according to EN 50470-3 (MID)
- Reactive energy class 2 according to IEC/EN 62053-23

### S0 output (no ETHERNET model)

- Passive optoisolated
- Maximum values: 27 V<sub>DC</sub> - 27 mA
- Meter constant: 500 imp/kWh  
*The measuring unit (imp/kWh, imp/kvarh, imp/kVAh) changes according to the assigned counter (kWh, kvarh, kVAh)*
- Pulse length: 50  $\pm$ 2ms

### Metrological LED

- Meter constant: 1000 imp/kWh
- Pulse length: 10  $\pm$ 2ms

### Environmental conditions

- Operating temperature: -25°C ... +55°C
- Storage temperature: -25°C ... +75°C
- Humidity: 80% max without condensation
- Protection degree: IP51 frontal part -IP20 terminals

ORDER CODE	VOLTAGE AND FREQUENCY INPUT	COMMUNICATION PORT			OPTIONS				
		SELF-POWERED	RS485 MODBUS	M-BUS	ETHERNET	MID	MID S	NO MID	RESET
<b>UEM80-2D R</b>									
1107.0001.0001	230V...240V 50/60Hz	•				•			
1107.0002.0001	230V...240V 50/60Hz	•					•		
1107.0003.0001	230V...240V 50/60Hz	•						•	
1107.0004.0001	230V...240V 50/60Hz	•							•
<b>UEM80-2D M</b>									
1107.0005.0001	230V...240V 50/60Hz			•		•			
1107.0006.0001	230V...240V 50/60Hz			•			•		
1107.0007.0001	230V...240V 50/60Hz			•				•	
1107.0008.0001	230V...240V 50/60Hz			•					•
<b>UEM80-2D E</b>									
1107.0009.0001	230V...240V 50/60Hz				•	•			
1107.0010.0001	230V...240V 50/60Hz				•		•		
1107.0011.0001	230V...240V 50/60Hz				•			•	
1107.0012.0001	230V...240V 50/60Hz				•				•

Some models can be available for 110V, 115V, 120V or 127V 60Hz power supply. Please contact the sales department for further details.



# UEM1P5

6A three phase energy meter with built-in communication

**UEM1P5-4D R • UEM1P5-D M**  
**UEM1P5-4D E**



- UEM1P5-4D R for RS485 Modbus RTU/ASCII communication
- UEM1P5-D M for M-Bus communication
- UEM1P5-4D E for Ethernet (Modbus TCP) communication
- For 1 or 5A CT
- Programmable CT ratio
- Fully bi-directional 4-quadrant measurements for all energies and powers
- For 4 wire networks with balanced or unbalanced load. M-BUS model can be used also for 3 / 4 wire networks
- Class B according to EN 50470-3 (MID)
- S0 output for energy pulse emission

- Available with MID certification
- 8 MB for data recording and automatic/manual data transferring (only ETHERNET model)

## TECHNICAL FEATURES

### Power supply

- Power supplied from the voltage circuit
- Nominal measurement voltage  $\pm 20\%$
- Max consumption (for each phase):  
RS485 MODBUS / ETHERNET models: 3.5 VA - 1 W  
M-BUS model: 7.5 VA - 0.5 W
- CT burden (for each phase): 0.04 VA
- Nominal frequency: 50/60 Hz

### Voltage range & frequency

- 3x230/400 ... 3x240/415 V 50/60 Hz

### Current

- Starting current  $I_{st}$ : 2 mA
- Minimum current  $I_{min}$ : 10 mA
- Transitional current  $I_{tr}$ : 50 mA
- Reference current  $I_{ref}$  ( $I_n$ ): 1 A
- Maximum current  $I_{max}$ : 6 A

### RS485 Modbus communication

- Port: RS485
- Protocol: Modbus RTU/ASCII
- Communication speed: 300 ... 57600 bps

### M-Bus communication

- Port: wired (EN 1434-3)
- Protocol: M-Bus
- Communication speed: 300 ... 38400 bps
- Unit load: 1

### Ethernet communication

- Port: 10/100 Base T
- Protocol: HTTP, NTP, DHCP, Modbus TCP
- Communication speed: 10/100 Mbps
- 8 MB for data recording
- Web server

### Accuracy

- Active energy class 1 according to IEC/EN 62053-21 (NO MID)
- Active energy class B according to EN 50470-3 (MID)
- Reactive energy class 2 according to IEC/EN 62053-23

### S0 output

- Passive optoisolated
- Maximum values: 27 V<sub>DC</sub> - 27 mA
- Meter constant according to the set CT ratio:
  - 1000 imp/kWh with CT ratio in range 1...4
  - 200 imp/kWh with CT ratio in range 5...24
  - 40 imp/kWh with CT ratio in range 25...124
  - 8 imp/kWh with CT ratio in range 125...624
  - 1 imp/kWh with CT ratio in range 625...3124

- 0.1 imp/kWh with CT ratio in range 3125...10000

*The measuring unit (imp/kWh, imp/kvarh, imp/kVAh) changes according to the assigned counter (kWh, kvarh, kVAh)*

- Pulse length: 50  $\pm$ 2ms

### Tariff input (no ETHERNET model)

- Active optoisolated
- Voltage range for tariff 2: 80 ... 276 V<sub>AC-DC</sub>

### Metrological LED

- Meter constant: 10000 imp/kWh
- Pulse length: 10  $\pm$ 2mss

### Environmental conditions

- Operating temperature: -25°C ... +55°C
- Storage temperature: -25°C ... +75°C
- Humidity: 80% max without condensation
- Protection degree: IP51 frontal part -IP20 terminals

ORDER CODE	VOLTAGE AND FREQUENCY INPUT	COMMUNICATION PORT			OPTIONS				
		SELF-POWERED	RS485 MODBUS	M-BUS	ETHERNET	MID	MID S	NONE	RESET
<b>UEM1P5-4D R</b>									
1101.0001.0001	3x230/400V...3x240/415V 50/60Hz	•				•			
1101.0002.0001	3x230/400V...3x240/415V 50/60Hz	•					•		
1101.0003.0001	3x230/400V...3x240/415V 50/60Hz	•						•	
1101.0004.0001	3x230/400V...3x240/415V 50/60Hz	•							•
<b>UEM1P5-D M</b>									
1101.0005.0001	3x230/400V...3x240/415V 50/60Hz			•		•			
1101.0006.0001	3x230/400V...3x240/415V 50/60Hz			•			•		
1101.0007.0001	3x230/400V...3x240/415V 50/60Hz			•				•	
1101.0008.0001	3x230/400V...3x240/415V 50/60Hz			•					•
<b>UEM1P5-4D E</b>									
1101.0009.0001	3x230/400V...3x240/415V 50/60Hz				•	•			
1101.0010.0001	3x230/400V...3x240/415V 50/60Hz				•		•		
1101.0011.0001	3x230/400V...3x240/415V 50/60Hz				•			•	
1101.0012.0001	3x230/400V...3x240/415V 50/60Hz				•				•

Some models can be available for 110V, 115V, 120V or 127V 60Hz power supply. Please contact the sales department for further details.

**BACK TO UEM SERIES**



# UEM6C

6A three phase energy meter with built-in communication

UEM6C-4A R • UEM6C-A M • UEM6C-4A E  
UEM6C-4D R • UEM6C-D M • UEM6C-4D E



- Class C according to EN 50470-3 (MID)
- Available built-in communication: RS485 Modbus RTU/ASCII or M-Bus or Ethernet (Modbus TCP)
- For 1 or 5A CT
- Programmable CT ratio

- Fully bi-directional 4-quadrant measurements for all energies and powers
- For 4 wire networks with balanced or unbalanced load. M-BUS model can be used also for 3 / 4 wire networks
- S0 output for energy pulse emission
- Available with MID certification

- 8 MB for data recording and automatic/manual data transferring (only ETHERNET model)

## TECHNICAL FEATURES

### Power supply

- Power supplied from the voltage circuit
- Nominal measurement voltage  $\pm 20\%$
- Max consumption (for each phase):  
RS485 MODBUS / ETHERNET models: 3.5 VA - 1 W  
M-BUS model: 7.5 VA - 0.5 W
- CT burden (for each phase): 0.04 VA
- Nominal frequency: 50/60 Hz

### Voltage range & frequency

- 3x230/400 V 50 Hz (MID)
- 3x230/400 ... 3x240/415 V 50/60 Hz (NO MID)

### Current

- Starting current  $I_{st}$ : 1 mA
- Minimum current  $I_{min}$ : 10 mA
- Transitional current  $I_{tr}$ : 50 mA
- Reference current  $I_{ref}$  ( $I_n$ ): 1 A
- Maximum current  $I_{max}$ : 6 A

### RS485 Modbus communication

- Port: RS485
- Protocol: Modbus RTU/ASCII
- Communication speed: 300 ... 57600 bps

### M-Bus communication

- Port: wired (EN 1434-3)
- Protocol: M-Bus
- Communication speed: 300 ... 9600 bps
- Unit load: 1

### Ethernet communication

- Port: 10/100 Base T
- Protocol: HTTP, NTP, DHCP, Modbus TCP
- Communication speed: 10/100 Mbps
- 8 MB for data recording
- Web server

### Accuracy

- Active energy class C according to EN 50470-3 (MID)
- Active energy class 0,5 S according to IEC 62053-22 (NO MID)
- Reactive energy class 2 according to IEC/EN 62053-23

### S0 output

- Passive optoisolated
- Maximum values: 27 V<sub>DC</sub> - 27 mA
- Meter constant according to the set CT ratio:
  - 1000 imp/kWh with CT ratio in range 1...4
  - 200 imp/kWh with CT ratio in range 5...24

- 40 imp/kWh with CT ratio in range 25...124
- 8 imp/kWh with CT ratio in range 125...624
- 1 imp/kWh with CT ratio in range 625...3124
- 0.1 imp/kWh with CT ratio in range 3125...10000

*The measuring unit (imp/kWh, imp/kvarh, imp/kVAh) changes according to the assigned counter (kWh, kvarh, kVAh)*

- Pulse length: 50  $\pm$ 2ms

### Tariff input (no ETHERNET model)

- Active optoisolated
- Voltage range for tariff 2: 80 ... 276 V<sub>AC-DC</sub>

### Metrological LED

- Meter constant: 10000 imp/kWh
- Pulse length: 10  $\pm$ 2ms

### Environmental conditions

- Operating temperature: -25°C ... +55°C
- Storage temperature: -25°C ... +75°C
- Humidity: 80% max without condensation
- Protection degree: IP51 frontal part -IP20 terminals

ORDER CODE	VOLTAGE AND FREQUENCY INPUT SELF-POWERED	INPUTS / OUTPUTS		COMMUNICATION PORT			OPTIONS			
		TARIFF INPUT	S0 OUTPUT	RS485 MODBUS	M-BUS	ETHERNET	MID	MID S	NO MID	RESET
<b>UEM6C-4A R (CTs not included)</b>										
1113.0001.0001	3x230/400V 50Hz	1	1	•			•			
1113.0002.0001	3x230/400V 50Hz	1	1	•				•		
<b>UEM6C-4D R (CTs not included)</b>										
1113.0003.0001	3x230/400V...3x240/415V 50/60Hz	1	1	•					•	
1113.0004.0001	3x230/400V...3x240/415V 50/60Hz	1	1	•						•
<b>UEM6C-A M (CTs not included)</b>										
1113.0005.0001	3x230/400V 50Hz	1	1		•		•			
1113.0006.0001	3x230/400V 50Hz	1	1		•			•		
<b>UEM6C-D M (CTs not included)</b>										
1113.0007.0001	3x230/400V...3x240/415V 50/60Hz	1	1		•				•	
1113.0008.0001	3x230/400V...3x240/415V 50/60Hz	1	1		•					•
<b>UEM6C-4A E (CTs not included)</b>										
1113.0009.0001	3x230/400V 50Hz		1			•	•			
1113.0010.0001	3x230/400V 50Hz		1			•		•		
<b>UEM6C-4D E (CTs not included)</b>										
1113.0011.0001	3x230/400V...3x240/415V 50/60Hz		1			•			•	
1113.0012.0001	3x230/400V...3x240/415V 50/60Hz		1			•				•

Some models can be available for 110V, 115V, 120V or 127V 60Hz power supply. Please contact the sales department for further details.

BACK TO UEM SERIES



# UEM63-4D R70

## 63A three phase energy meter with built-in communication



- Up to 70°C operating temperature
- For RS485 Modbus RTU/ASCII communication
- Direct connection up to 63 A
- Fully bi-directional 4-quadrant measurements for all energies and powers
- For 4 wire networks with balanced or unbalanced load
- Class B according to EN 50470-3 (MID)
- S0 output for energy pulse emission
- Available with MID certification

## TECHNICAL FEATURES

### Power supply

- Power supplied from the voltage circuit
- Nominal measurement voltage  $\pm 20\%$
- Max consumption (for each phase): 3.5 VA - 1 W
- Nominal frequency: 50/60 Hz

### Voltage range & frequency

- 3x230/400 ... 3x240/415 V 50/60 Hz

### Current

- Starting current  $I_{st}$ : 20 mA
- Minimum current  $I_{min}$ : 250 mA
- Transitional current  $I_{tr}$ : 500 mA
- Reference current  $I_{ref}$  ( $I_b$ ): 5 A
- Maximum current  $I_{max}$ : 63 A

### RS485 Modbus communication

- Port: RS485
- Protocol: Modbus RTU/ASCII
- Communication speed: 300 ... 57600 bps

### Accuracy

- Active energy class 1 according to IEC/EN 62053-21 (NO MID)
- Active energy class B according to EN 50470-3 (MID)
- Reactive energy class 2 according to IEC/EN 62053-23

### S0 output

- Passive optoisolated
- Maximum values: 27 V<sub>DC</sub> - 27 mA
- Meter constant: 100 imp/kWh  
*The measuring unit (imp/kWh, imp/kvarh, imp/kVAh) changes according to the assigned counter (kWh, kvarh, kVAh)*
- Pulse length: 50  $\pm$ 2ms

### Tariff input

- Active optoisolated
- Voltage range for tariff 2: 80 ... 276 V<sub>AC-DC</sub>

### Metrological LED

- Meter constant: 1000 imp/kWh
- Pulse length: 10  $\pm$ 2ms

### Environmental conditions

- Operating temperature: -25°C ... +70°C
- Storage temperature: -25°C ... +75°C
- Humidity: 80% max without condensation
- Protection degree: IP51 frontal part -IP20 terminals

ORDER CODE	VOLTAGE AND FREQUENCY INPUT	COMMUNICATION PORT	OPTIONS			
	SELF-POWERED	RS485 MODBUS	MID	MID S	NO MID	RESET
<b>UEM63-4D R70</b>						
1115.0001.0001	3x230/400V...3x240/415V 50/60Hz	•	•			
1115.0002.0001	3x230/400V...3x240/415V 50/60Hz	•		•		
1115.0003.0001	3x230/400V...3x240/415V 50/60Hz	•			•	
1115.0004.0001	3x230/400V...3x240/415V 50/60Hz	•				•



# UEM80

80A three phase energy meter with built-in communication

**UEM80-4D R • UEM80-D M  
UEM80-4D E**



- UEM80-4D R for RS485 Modbus RTU/ASCII communication
- UEM80-D M for M-Bus communication
- UEM80-4D E for Ethernet (Modbus TCP) communication
- Direct connection up to 80 A
- Fully bi-directional 4-quadrant measurements for all energies and powers
- For 4 wire networks with balanced or unbalanced load. M-BUS model can be used also for 3 / 4 wire networks
- Class B according to EN 50470-3 (MID)
- 8 MB for data recording and automatic/manual data transferring (only ETHERNET model)
- S0 output for energy pulse emission
- Available with MID certification

## TECHNICAL FEATURES

### Power supply

- Power supplied from the voltage circuit
- Nominal measurement voltage  $\pm 20\%$
- Max consumption (for each phase):  
RS485 MODBUS / ETHERNET models: 3.5 VA - 1 W  
M-BUS model: 7.5 VA - 0.5 W
- Nominal frequency: 50/60 Hz

### Voltage range & frequency

- 3x230/400 ... 3x240/415 V 50/60 Hz

### Current

- Starting current  $I_{st}$ : 20 mA
- Minimum current  $I_{min}$ : 250 mA
- Transitional current  $I_{tr}$ : 500 mA
- Reference current  $I_{ref}$  ( $I_b$ ): 5 A
- Maximum current  $I_{max}$ : 80 A

### RS485 Modbus communication

- Port: RS485
- Protocol: Modbus RTU/ASCII
- Communication speed: 300 ... 57600 bps

### M-Bus communication

- Port: wired (EN 1434-3)
- Protocol: M-Bus
- Communication speed: 300 ... 38400 bps
- Unit load: 1

### Ethernet communication

- Port: 10/100 Base T
- Protocol: HTTP, NTP, DHCP, Modbus TCP
- Communication speed: 10/100 Mbps
- 8 MB for data recording
- Web server

### Accuracy

- Active energy class 1 according to IEC/EN 62053-21 (NO MID)
- Active energy class B according to EN 50470-3 (MID)
- Reactive energy class 2 according to IEC/EN 62053-23

### S0 output

- Passive optoisolated
- Maximum values: 27 V<sub>DC</sub> - 27 mA
- Meter constant: 100 imp/kWh  
*The measuring unit (imp/kWh, imp/kvarh, imp/kVAh) changes according to the assigned counter (kWh, kvarh, kVAh)*
- Pulse length: 50  $\pm$  2ms

### Tariff input (no ETHERNET model)

- Active optoisolated
- Voltage range for tariff 2: 80 ... 276 V<sub>AC-DC</sub>

### Metrological LED

- Meter constant: 1000 imp/kWh
- Pulse length: 10  $\pm$  2ms

### Environmental conditions

- Operating temperature: -25°C ... +55°C
- Storage temperature: -25°C ... +75°C
- Humidity: 80% max without condensation
- Protection degree: IP51 frontal part -IP20 terminals

ORDER CODE	VOLTAGE AND FREQUENCY INPUT SELF-POWERED	COMMUNICATION PORT			OPTIONS			
		RS485 MODBUS	M-BUS	ETHERNET	MID	MID S	NONE	RESET
<b>UEM80-4D R</b>								
1104.0001.0001	3x230/400V...3x240/415V 50/60Hz	•			•			
1104.0002.0001	3x230/400V...3x240/415V 50/60Hz	•				•		
1104.0003.0001	3x230/400V...3x240/415V 50/60Hz	•					•	
1104.0004.0001	3x230/400V...3x240/415V 50/60Hz	•						•
<b>UEM80-D M</b>								
1104.0005.0001	3x230/400V...3x240/415V 50/60Hz		•		•			
1104.0006.0001	3x230/400V...3x240/415V 50/60Hz		•			•		
1104.0007.0001	3x230/400V...3x240/415V 50/60Hz		•				•	
1104.0008.0001	3x230/400V...3x240/415V 50/60Hz		•					•
<b>UEM80-4D E</b>								
1104.0009.0001	3x230/400V...3x240/415V 50/60Hz			•	•			
1104.0010.0001	3x230/400V...3x240/415V 50/60Hz			•		•		
1104.0011.0001	3x230/400V...3x240/415V 50/60Hz			•			•	
1104.0012.0001	3x230/400V...3x240/415V 50/60Hz			•				•

Some models can be available for 110V, 115V, 120V or 127V 60Hz power supply. Please contact the sales department for further details.



# UEC SERIES



EN 50470-1  
EN 50470-3



THREE PHASE &  
SINGLE PHASE



SO OUTPUT FOR  
PULSE EMISSION



UP TO 30  
PARAMETERS  
DISPLAYED



ACCURACY  
CLASS B OR C



**UEC40**



**UEC80-2D**



**UEC1P5-D**



**UEC6C-X**



**UEC80-D**

- To be combined with external communication modules
- For tax and invoicing purposes
- Easy and quick to install and set up

- Bi-directional measurements in 4 quadrants
- Large LCD display with backlit
- Single phase: direct connection up to 40A and 80A

- Three phase: 1/5A with CT
- Three phase: direct connection up to 80A
- Simple and reliable
- Two digital outputs for pulse emission



# UEC40

## 40A single phase 2 wire energy meter

### UEC40-2C



- Direct connection up to 40 A
- Fully bi-directional 4-quadrant measurements for all energies and powers
- UEC40-2C for a simple energy meter without built-in communication
- High reliability
- 1 DIN module compact size
- Quick installation
- S0 output for energy pulse emission
- LCD display with 7 main digits
- Available with MID certification

## TECHNICAL FEATURES

### Power supply

- Power supplied from the voltage circuit
- Nominal measurement voltage  $\pm 20\%$
- Max consumption: 1.5 VA - 1 W
- Nominal frequency: 50/60 Hz

### Voltage & frequency

- Nominal values: 230 V 50/60 Hz

### Current

- Starting current  $I_{st}$ : 20 mA
- Minimum current  $I_{min}$ : 250 mA
- Transitional current  $I_{tr}$ : 500 mA
- Reference current  $I_{ref}$  ( $I_b$ ): 5 A
- Maximum current  $I_{max}$ : 40 A

### RS485 Modbus communication

- Port: RS485
- Protocol: Modbus RTU
- Communication speed: 2400, 4800, 9600, 19200, 38400 bps
- Unit load: 1/8

### M-Bus communication

- Port: wired (EN 1434-3)
- Protocol: M-Bus
- Communication speed: 300, 2400, 9600 bps
- Unit load: 1

### Accuracy

- Active energy class 1 according to IEC/EN 62053-21 (NO MID)
- Active energy class B according to EN 50470-3 (MID)
- Reactive energy class 2 according to IEC/EN 62053-23

### S0 output

- Passive optoisolated
- Maximum values: 27 V<sub>DC</sub> - 27 mA
- Meter constant: 1000 imp/kWh  
*The measuring unit (imp/kWh, imp/kvarh, imp/kVAh) changes according to the assigned counter (kWh, kvarh, kVAh)*
- Pulse length: 100  $\pm 0.5$ ms

### Metrological LED

- Meter constant: 5000 imp/kWh
- Pulse length: 4  $\pm 0.1$ ms

### Environmental conditions

- Operating temperature: -25°C ... +55°C
- Storage temperature: -40°C ... +75°C
- Humidity: 80% max without condensation
- Protection degree: IP51 frontal part -IP20 terminals

ORDER CODE	VOLTAGE AND FREQUENCY INPUT SELF-POWERED	COMMUNICATION PORT			OPTIONS		
		NONE	RS485 MODBUS	M-BUS	MID	MID S	RESET
<b>UEC40-2C</b>							
1110.0001.0001	230V 50/60Hz	•			•		
1110.0002.0001	230V 50/60Hz	•				•	
1110.0003.0001	230V 50/60Hz	•					•



# UEC80-2D

## 80A single phase 2 wire energy meter



- Direct connection up to 80 A
- Fully bi-directional 4-quadrant measurements for all energies and powers
- Class B according to EN 50470-3 (MID)
- Tariff input
- 2 S0 outputs for energy pulse emission
- LCD display with 7 main digits
- IR optical port for communication
- Available with MID certification

### TECHNICAL FEATURES

#### Power supply

- Power supplied from the voltage circuit
- Nominal measurement voltage  $\pm 20\%$
- Max consumption: 7.5 VA - 0.5 W
- Nominal frequency: 50/60 Hz

#### Voltage range & frequency

- 230 ... 240 V 50/60 Hz

#### Current

- Starting current  $I_{st}$ : 20 mA
- Minimum current  $I_{min}$ : 250 mA
- Transitional current  $I_{tr}$ : 500 mA
- Reference current  $I_{ref}$  ( $I_b$ ): 5 A
- Maximum current  $I_{max}$ : 80 A

#### Accuracy

- Active energy class 1 according to IEC/EN 62053-21 (NO MID)
- Active energy class B according to EN 50470-3 (MID)
- Reactive energy class 2 according to IEC/EN 62053-23

#### S0 outputs

- 2 passive optoisolated
- Maximum values: 250 V<sub>AC-DC</sub> - 100 mA
- Meter constant: 500 imp/kWh  
*The measuring unit (imp/kWh, imp/kvarh, imp/kVAh) changes according to the assigned counter (kWh, kvarh, kVAh)*
- Pulse length: 50  $\pm$ 2ms ON time

#### Tariff input

- Active optoisolated
- Voltage range for tariff 2: 80 ... 276 V<sub>AC-DC</sub>

#### Metrological LED

- Meter constant: 1000 imp/kWh

#### Environmental conditions

- Operating temperature: -25°C ... +55°C
- Storage temperature: -25°C ... +75°C
- Humidity: 80% max without condensation
- Protection degree: IP51 frontal part -IP20 terminals

ORDER CODE	VOLTAGE AND FREQUENCY INPUT	INPUTS / OUTPUTS		COMMUNICATION PORT	OPTIONS			
	SELF-POWERED	TARIFF INPUT	S0 OUTPUT	IR	MID	MID S	NO MID	RESET
<b>UEC80-2D</b>								
1108.0013.0001	230V...240V 50/60Hz	1	2	•	•			
1108.0014.0001	230V...240V 50/60Hz	1	2	•		•		
1108.0015.0001	230V...240V 50/60Hz	1	2	•			•	
1108.0016.0001	230V...240V 50/60Hz	1	2	•				•



# UEC1P5-D

## 6A three phase 3 or 4 wire programmable energy meter



- For 1 or 5A CT
- Programmable CT ratio
- Fully bi-directional 4-quadrant measurements for all energies and powers
- For 3 / 4 wire networks with balanced or unbalanced load
- Class B according to EN 50470-3 (MID)
- Tariff input
- 2 S0 outputs for energy pulse emission
- LCD display with 8 main digits
- IR optical port for communication with external modules
- Available with MID certification

### TECHNICAL FEATURES

#### Power supply

- Power supplied from the voltage circuit
- Nominal measurement voltage  $\pm 20\%$
- Max consumption (for each phase): 7.5 VA - 0.5 W
- CT burden (for each phase): 0.04 VA
- Nominal frequency: 50/60 Hz

#### Voltage range & frequency

- 3x230/400 ... 3x240/415 V 50/60 Hz

#### Current

- Starting current  $I_{st}$ : 2 mA
- Minimum current  $I_{min}$ : 10 mA
- Transitional current  $I_{tr}$ : 50 mA
- Reference current  $I_{ref}$  ( $I_n$ ): 1 A
- Maximum current  $I_{max}$ : 6 A

#### Accuracy

- Active energy class 1 according to IEC/EN 62053-21 (NO MID)
- Active energy class B according to EN 50470-3 (MID)
- Reactive energy class 2 according to IEC/EN 62053-23

#### S0 outputs

- 2 passive optoisolated
- Maximum values: 250 V<sub>AC-DC</sub> - 100 mA
- Meter constant according to the set CT ratio:
  - 1000 imp/kWh with CT ratio in range 1...4
  - 200 imp/kWh with CT ratio in range 5...24
  - 40 imp/kWh with CT ratio in range 25...124
  - 8 imp/kWh with CT ratio in range 125...624
  - 1 imp/kWh with CT ratio in range 625...3124
  - 0.1 imp/kWh with CT ratio in range 3125...10000
- The measuring unit (imp/kWh, imp/kvarh, imp/kVAh) changes according to the assigned counter (kWh, kvarh, kVAh)*
- Pulse length: 50  $\pm$ 2ms

#### Tariff input

- Active optoisolated
- Voltage range for tariff 2: 80 ... 276 V<sub>AC-DC</sub>

#### Metrological LED

- Meter constant: 10000 imp/kWh
- Pulse length: 10  $\pm$ 2ms

#### Environmental conditions

- Operating temperature: -25°C ... +55°C
- Storage temperature: -25°C ... +75°C
- Humidity: 80% max without condensation
- Protection degree: IP51 frontal part -IP20 terminals

ORDER CODE	VOLTAGE AND FREQUENCY INPUT	INPUTS / OUTPUTS		COMMUNICATION PORT	OPTIONS			
	SELF-POWERED	TARIFF INPUT	S0 OUTPUT	IR	MID	MID S	NO MID	RESET

#### UEC1P5-D (CTs not included)

1102.0013.0001	3x230/400V...3x240/415V 50/60Hz	1	2	•	•			
1102.0014.0001	3x230/400V...3x240/415V 50/60Hz	1	2	•		•		
1102.0015.0001	3x230/400V...3x240/415V 50/60Hz	1	2	•			•	
1102.0016.0001	3x230/400V...3x240/415V 50/60Hz	1	2	•				•



# UEC6C-X

## 6A three phase 3 or 4 wire programmable energy meter

### UEC6C-A • UEC6C-D

- Class C according to EN 50470-3 (MID)
- For 1 or 5A CT
- Programmable CT ratio
- Fully bi-directional 4-quadrant measurements for all energies and powers
- For 3 / 4 wire networks with balanced or unbalanced load
- Tariff input
- 2 S0 outputs for energy pulse emission
- LCD display with 8 main digits
- IR optical port for communication with external modules
- Available with MID certification



EN 50470-3  
Classe C

## TECHNICAL FEATURES

### Power supply

- Power supplied from the voltage circuit
- Nominal measurement voltage  $\pm 20\%$
- Max consumption (for each phase): 7.5 VA - 0.5 W
- CT burden (for each phase): 0.04 VA
- Nominal frequency: 50/60 Hz

### Voltage range & frequency

- 3x230/400 V 50 Hz (MID)
- 3x230/400 ... 3x240/415 V 50/60 Hz (NO MID)

### Current

- Starting current  $I_{st}$ : 1 mA
- Minimum current  $I_{min}$ : 10 mA
- Transitional current  $I_{tr}$ : 50 mA
- Reference current  $I_{ref}$  ( $I_n$ ): 1 A
- Maximum current  $I_{max}$ : 6 A

### Accuracy

- Active energy class C according to EN 50470-3 (MID)
- Active energy class 0,5 S according to IEC 62053-22 (NO MID)
- Reactive energy class 2 according to IEC/EN 62053-23

### S0 outputs

- 2 passive optoisolated
- Maximum values: 250 V<sub>AC-DC</sub> - 100 mA
- Meter constant according to the set CT ratio:
  - 1000 imp/kWh with CT ratio in range 1...4
  - 200 imp/kWh with CT ratio in range 5...24
  - 40 imp/kWh with CT ratio in range 25...124
  - 8 imp/kWh with CT ratio in range 125...624
  - 1 imp/kWh with CT ratio in range 625...3124

- 0.1 imp/kWh with CT ratio in range 3125...10000

*The measuring unit (imp/kWh, imp/kvarh, imp/kVAh) changes according to the assigned counter (kWh, kvarh, kVAh)*

- Pulse length: 50  $\pm$ 2ms

### Tariff input

- Active optoisolated
- Voltage range for tariff 2: 80 ... 276 V<sub>AC-DC</sub>

### Metrological LED

- Meter constant: 10000 imp/kWh
- Pulse length: 10  $\pm$ 2ms

### Environmental conditions

- Operating temperature: -25°C ... +55°C
- Storage temperature: -25°C ... +75°C
- Humidity: 80% max without condensation
- Protection degree: IP51 frontal part -IP20 terminals

ORDER CODE	VOLTAGE AND FREQUENCY INPUT	INPUTS / OUTPUTS		COMMUNICATION PORT	OPTIONS			
		TARIFF INPUT	S0 OUTPUT		IR	MID	MID S	NO MID
<b>UEC6C-A (CTs not included)</b>								
1114.0001.0001	3x230/400V 50Hz	1	2	•	•			
1114.0002.0001	3x230/400V 50Hz	1	2	•		•		
<b>UEC6C-D (CTs not included)</b>								
1114.0003.0001	3x230/400V...3x240/415V 50/60Hz	1	2	•			•	
1114.0004.0001	3x230/400V...3x240/415V 50/60Hz	1	2	•				•



# UEC80-D

## 80A three phase 3 or 4 wire programmable energy meter



- Direct connection up to 80 A
- Fully bi-directional 4-quadrant measurements for all energies and powers
- For 3 / 4 wire networks with balanced or unbalanced load
- Class B according to EN 50470-3 (MID)
- Tariff input
- 2 S0 outputs for energy pulse emission
- LCD display with 8 main digits
- IR optical port for communication with external modules
- Available with MID certification

### TECHNICAL FEATURES

#### Power supply

- Power supplied from the voltage circuit
- Nominal measurement voltage  $\pm 20\%$
- Max consumption (for each phase): 7.5 VA - 0.5 W
- Nominal frequency: 50/60 Hz

#### Voltage range & frequency

- 3x230/400 ... 3x240/415 V 50/60 Hz

#### Current

- Starting current  $I_{st}$ : 20 mA
- Minimum current  $I_{min}$ : 250 mA
- Transitional current  $I_{tr}$ : 500 mA
- Reference current  $I_{ref}$  ( $I_b$ ): 5 A
- Maximum current  $I_{max}$ : 80 A

#### Accuracy

- Active energy class 1 according to IEC/EN 62053-21 (NO MID)
- Active energy class B according to EN 50470-3 (MID)
- Reactive energy class 2 according to IEC/EN 62053-23

#### S0 outputs

- 2 passive optoisolated
- Maximum values: 250 V<sub>AC-DC</sub> - 100 mA
- Meter constant: 100 imp/kWh  
*The measuring unit (imp/kWh, imp/kvarh, imp/kVAh) changes according to the assigned counter (kWh, kvarh, kVAh)*
- Pulse length: 50  $\pm$ 2ms

#### Tariff input

- Active optoisolated
- Voltage range for tariff 2: 80 ... 276 V<sub>AC-DC</sub>

#### Metrological LED

- Meter constant: 1000 imp/kWh
- Pulse length: 10  $\pm$ 2ms

#### Environmental conditions

- Operating temperature: -25°C ... +55°C
- Storage temperature: -25°C ... +75°C
- Humidity: 80% max without condensation
- Protection degree: IP51 frontal part -IP20 terminals

ORDER CODE	VOLTAGE AND FREQUENCY INPUT	INPUTS / OUTPUTS		COMMUNICATION PORT	OPTIONS			
	SELF-POWERED	TARIFF INPUT	S0 OUTPUT	IR	MID	MID S	NO MID	RESET

#### UEC80-D

1105.0013.0001	3x230/400V...3x240/415V 50/60Hz	1	2	•	•			
1105.0014.0001	3x230/400V...3x240/415V 50/60Hz	1	2	•		•		
1105.0015.0001	3x230/400V...3x240/415V 50/60Hz	1	2	•			•	
1105.0016.0001	3x230/400V...3x240/415V 50/60Hz	1	2	•				•



# COMMUNICATION MODULES



CONNECTION  
BY OPTICAL PORT



RS485



M-BUS



LAN  
GATEWAY



1 OR 2  
MODULES



RS485 MODBUS



M-BUS



LAN GATEWAY

- To be combined with UEC energy meters
- Easy to install
- Fast set up
- Extremely compact:  
1 or 2 DIN modules
- Possibility of alternating use depending on the application
- Modbus RS485 communication
- M-Bus communication
- Ethernet communication



# RS485 MODBUS

RS485 module allows to collect and transmit measurements data of the connected meter to a remote station. This data is transmitted on a RS485 line, using MODBUS RTU or ASCII protocols. MODBUS is the most popular communication protocol designed to allow industrial equipment to communicate. RS485 module is provided with a SET DEFAULT key to reset all communication parameters to factory default values. This function is very useful, i.e. in case of MODBUS logical address forgotten. Two LEDs on the RS485 module provide information about power supply status and communication status.



ORDER CODE	POWER SUPPLY	COMMUNICATION PORT				USER MANUAL LANGUAGES		
		RS485 MODBUS	M-BUS	ETHERNET	KNX	IT/EN	DE/EN	FR/EN
<b>RS485 Modbus</b>								
1112.0001.0001	230VCA ±20%	•				•		
1112.0005.0001	230VCA ±20%	•					•	
1112.0009.0001	230VCA ±20%	•						•

# M-BUS

M-Bus module allows to collect and transmit measurements data of the connected meter to a remote station using M-Bus protocol. M-Bus (Meter-Bus) is a European standard for the remote reading of consumption meters. A free dedicated software is provided for module configuration and for displaying the detected measurements.



ORDER CODE	POWER SUPPLY	COMMUNICATION PORT				USER MANUAL LANGUAGES		
		RS485 MODBUS	M-BUS	ETHERNET	KNX	IT/EN	DE/EN	FR/EN
<b>M-Bus</b>								
1112.0002.0001	Through bus connection		•			•		
1112.0006.0001	Through bus connection		•				•	
1112.0010.0001	Through bus connection		•					•

# LAN GATEWAY

LAN Gateway module allows to manage a single energy meter by any PC connected to Internet/LAN by means of a simple web browser. LAN Gateway module web pages are designed to be cross browser compliant: Internet Explorer, Mozilla Firefox, Apple Safari, Google Chrome, Opera, Netscape navigator are all supported web browsers. Another supported feature is MODBUS TCP protocol. MODBUS TCP is the most popular communication protocol designed to allow industrial equipment to communicate over a network. The use of MODBUS TCP provides a totally scalable solution according to the needs. LAN Gateway module is provided with a SET DEFAULT key to reset all communication parameters to factory default values. This function is very useful, i.e. in case of IP address forgotten. Two LEDs on LAN Gateway module provide information about link activity and status.



ORDER CODE	POWER SUPPLY	COMMUNICATION PORT				USER MANUAL LANGUAGES		
		RS485 MODBUS	M-BUS	ETHERNET	KNX	IT/EN	DE/EN	FR/EN
<b>Lan Gateway</b>								
1112.0003.0001	230VCA ±20%			•		•		
1112.0007.0001	230VCA ±20%			•			•	
1112.0011.0001	230VCA ±20%			•				•



# CUSTOMIZATION



All our products can be adapted, customized and developed according to specific project or market requirements.

We are able to support you from the first feasibility study, through the development of your type of personalization, up to its production and delivery, ensuring high standards of quality and flexibility.

## STANDARD BRAND LABELLING

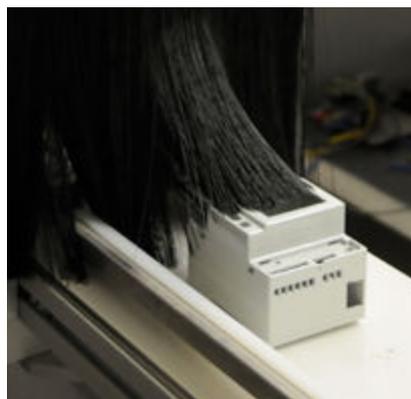
Examples of customizations:

- Front panel with customized specifications (logo, colors, buttons, etc)
- Packaging labels
- Communication parameters
- Tool Software
- Web Server
- Multilingual user manual  
+ Quick Guide in 4 languages

## ADVANCED BRAND LABELLING

Examples of customizations:

- Designing customized plastic parts (custom molds)
- Implementing customized firmware functions
- Hardware reengineering



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