

**Energy Meters** 

Ambition, PRO & N series



# Metering Metering

### inepro Metering

Since 1992 inepro has been a manufacturer of highquality energy meters that are distributed under the brand name **inepro** Metering.

With an extensive range of top quality certified (MID, MIR and Metas) energy meters, **inepro** Metering is one of the fastest growing metering manufacturers in the market today. Premium solutions, a strong business focus, expertise and very competitive pricing makes **inepro** Metering stand out from its competition.

**inepro** Metering is part of the **inepro** Group, which develops and manufactures solutions to help its customers increase efficiency to be able to fully focus on fulfilling their ambitions.



**inepro**'s headquarters was built with a focus on the environment and utilized eco-friendly techniques and green innovations such as geothermal energy and concrete core activation to save up to 40% on energy costs. This has resulted in a carbon neutral building. **inepro** also made the transition to electric cars for their operations.

### **Ambition series**



Article number	Metas	MID	MIR	Phase	Mod.	Cur.	Com.	Арр	Display	Conn.	Con. mode	so	Back- light	Tariff	S0 Pulse
0320 4PU	Yes	Yes	Yes	3	4	65A	Modbus+ M-bus	Yes (BLE)	Graphic	WAGO Clamps	Direct	2	Yes	4	Selectable
0321 4PS	Yes	Yes	Yes	3	4	65A	Modbus+ M-bus	Yes (BLE)	Grapic	WAGO Clamps	Direct	2	Yes	4	Selectable
0322 2PU CT	No	Yes	Yes	3	2	5A	Modbus+ M-bus	Yes (BLE)	Graphic	WAGO Clamps	Indi- rect	2	Yes	4	Selectable

### The next generation

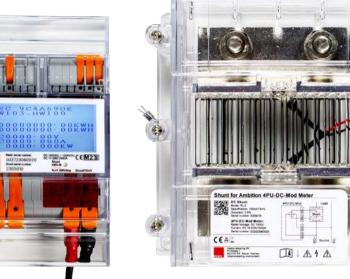
**inepro**'s Ambition series sets the new standard for next-generation meters, focusing on seamless installation and easy maintenance. The innovative integration of the WAGO Push-in CAGE CLAMP® allows you to install these meters without tools, making the process faster and easier than ever before. Thanks to the Bluetooth® interface that can be connected to a mobile application, programming and configuration are both fast and effortless.

The **inepro** Metering Manager allows you to remotely monitor values per phase or total via your smartphone or tablet (available via the App Store & Google Play). The meters can collect data via M-bus, Modbus, S0 interface and UART port (TCP-IP) for efficient metering.

With high accuracy for active energy measurement and a wide temperature range, Ambition meters display immediate variables on the LCD and can be accessed through various communication options. In addition, the Ambition series meets multiple guidelines and certifications for different regions.

In addition to its distinctive transparent housing, large dot-matrix displays, and a customizable user interface, **inepro**'s Ambition meters are remarkably efficient. Rely on **inepro**'s advanced and reliable technology to provide you with a reliable metering solution that stands out from the rest.

## **Ambition 4PU-DC-Mod & Shunt**





### **Empowering Sustainable Energy**

Responding to the increasing demand for renewable energy solutions, **inepro** Metering is proud to present the Ambition 4PU-DC-Mod Meter, carefully designed for measuring direct current (DC). Unlike conventional meters made for alternating current, the Ambition 4PU-DC-Mod Meter ensures accuracy of measurements for various applications such as data centres, telecommunications and medical equipment. The Ambition 4PU-DC-Mod Meter is one of the first MID-certified DC meters on the market, making it ideal for official billing procedures.

The Ambition 4PU-DC-Mod meter stands out with its powerful features and benefits tailored for modern energy needs. It offers a voltage range of up to 1000 Volts. Its integration of the shunt and DC meter into one certified device simplifies the certification process, saving both time and costs for manufacturers. Additionally, the built-in 230 Volt power supply eliminates the necessity for a separate power unit. With a user-friendly, tool-free installation process featuring WAGO Push-in CAGE CLAMPS®, the Ambition 4PU-DC-Mod meter redefines efficiency and reliability in electricity metering.

Article number	Metas	MID	MIR	Phase	Mod.	Cur.	Com.	Арр	Display	Conn.	Con. mode	S0	Back- light	Dimensions (Ixwxh)
0343 4PU-DC-Mod	No	Yes	No	1	4	300A	Modbus	No	Graphic	WAGO Clamps	Direct	No	Yes	7.9x15.2x5.85 cm
0344 4PU-DC-Mod	No	Yes	No	1	4	600A	Modbus	No	Graphic	WAGO Clamps	Direct	No	Yes	10.9x15.2x5.85 cm
0327 4PU-DC-Mod	No	Yes	No	1	4	1000A	Modbus	No	Graphic	WAGO Clamps	Direct	No	Yes	14.9x15.2x5.85 cm
0345 4PU-DC-Mod	No	Yes	No	1	4	1500A	Modbus	No	Graphic	WAGO Clamps	Direct	No	Yes	18.5x15.2x5.85 cm

### **Ambition Modbus TCP Gateway**

TCP/IP, short for Transmission Control Protocol/Internet Protocol, enables the seamless transfer of data over networks, including the Internet. With our new module, your Modbus meter can now communicate in real time with a central server or web application, providing valuable insights into your energy consumption.

The Modbus TCP Gateway can be linked directly, without external cables, to any meter from our Ambition series. The module can also be connected to Modbus meters, with a baud rate range from 1200 to 115200.

A mounting cover is supplied together with our Modbus TCP Gateway so you can effortlessly connect it to your Ambition meter.

Article number	Max COM-port	Mod.	Input cur.	Com.	Conn.	IP
0330 Modbus TCP Gateway	4	1	500 mA	Modbus RS485+ Modbus RS232 (UART)	WAGO Clamps	DHCP or static





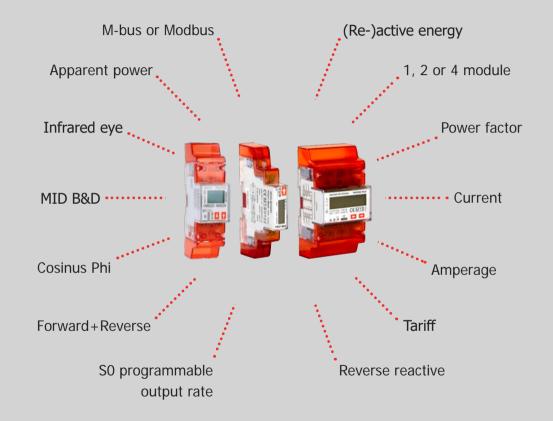


### **PRO** series

The PRO line energy meters have been established in 2013. With this line, **inepro** delivers high-quality energy meters for the top segment of the metering market. The meters are MID-approved, so these can be used for invoicing purposes. The 14 models of single and three phase energy meters are equipped with optional, 2 tariff, Modbus or M-bus communication.

The PRO series has a fresh and transparent Dutch design. The distinct red covers signify our passion to develop the best metering solutions. The newly developed meters show more than 30/60 variables (depending on the meter) in the LCD. The meters can be easily read out via an infrared eye and S0-output. Optional M-bus and Modbus are available.

**inepro** spent numerous years developing these premium quality smart energy meters with the highest functionality while maintaining the best price-quality ratio.



# PRO1 - MID B&D

The PRO1 series is a range of 1 module, single phase energy meters consisting of 4 different types, each with their specific characteristics.

The meters have an exceptional combination of a high accuracy class (1/B) and a broad temperature range of -40°C to +70°C. Another unique feature is the Imax of 45A.

The PRO1 series is available as a standard version (with a selectable S0 output) and as a Modbus, M-bus or 2 tariff version. It can communicate and be programmed via an infrared input. The different communication modes have over 40 variables such as kWh, active and reactive energy, forward and reverse energy as well as Cos phi.

The PRO1 series is equipped with a resettable day counter and the total energy usage can be calculated via 6 different modes.

Article number	MID	MIR	Phase	Mod.	Cur.	Com.	Display	Digits	Con. mode	<b>S</b> 0	Back- light	Acc. Class	Tariff	SO pulse output
0251 PRO1-S	Yes	Yes	1	1	45A	х	LCD	4+2	direct	1	Yes	В	х	Selectable <sup>1</sup>
0252 PRO1-2T	Yes	Yes	1	1	45A	х	LCD	4+2	direct	1	Yes	В	2	Selectable <sup>1</sup>
0253 PRO1-Mb	Yes	Yes	1	1	45A	M-bus	LCD	4+2	direct	1	Yes	В	2	Selectable <sup>1</sup>
0254 PRO1-Mod	Yes	Yes	1	1	45A	Modbus	LCD	4+2	direct	1	Yes	В	2	Selectable <sup>1</sup>

selectable options: 10.000-2.000-1.000-100-10-1-0.1-0.01





# PRO2 - MID B&D

The PRO2 series is a range of 2 module, single phase energy meters consisting of 4 different types, each with their specific characteristics.

The meters have an exceptional combination of a high accuracy class (1/B) and a broad temperature range of -40°C to +70°C. Another unique feature is the Imax of 100 A.

The PRO2 series is available as a standard version (with a selectable S0 output) and as a Modbus, M-bus or 2 tariff version. It can communicate and be programmed via an infrared input. The different communication modes have over 40 variables such as kWh, active and reactive energy, forward and reverse energy as well as Cos phi. inepro has also integrated OBIS codes in the PRO2.

The PRO2 series is equipped with a resettable day counter and the total energy usage can be calculated via 6 different modes.

Article number	MID	MIR	Phase	Mod.	Cur.	Com.	Display	Digits	Con. mode	<b>S</b> 0	Back- light	Acc. Class	Tariff	SO pulse output
0284 PRO2-S	Yes	Yes	1	2	100A	х	LCD	5+2	direct	2	Yes	В	х	Selectable <sup>1</sup>
0285 PRO2-2T	Yes	Yes	1	2	100A	х	LCD	5+2	direct	2	Yes	В	2	Selectable <sup>1</sup>
0286 PRO2-Mb	Yes	Yes	1	2	100A	M-bus	LCD	5+2	direct	2	Yes	В	2	Selectable <sup>1</sup>
0287 PRO2-Mod	Yes	Yes	1	2	100A	Modbus	LCD	5+2	direct	2	Yes	В	2	Selectable <sup>1</sup>

selectable options: 10.000-2.000-1.000-100-10-1-0.1-0.01





# PRO380 - MID B&D

The PRO380 series is a range of 4 module, three phase energy meters consisting of 3 different types each with their specific characteristics.

The meters have an exceptional combination of a high accuracy class (1/B) and a broad temperature range of -40°C to +70°C.

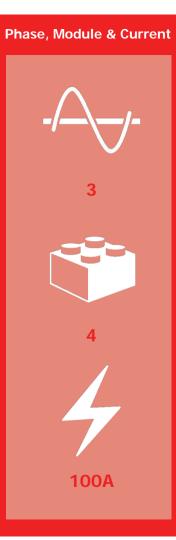
The PRO380 series is available as a standard version (with a selectable S0 output) and as a Modbus or M-bus version. It can communicate and be programmed via an infrared input. The different communication modes have over 60 variables such as kWh, active and reactive energy, forward and reverse energy as well as Cos phi.

The PRO380 series is equipped with a resettable day counter and the total energy usage can be calculated via 7 different modes.

Article number	MID	MIR	Phase	Mod.	Cur.	Com.	Display	Digits	Con. mode	<b>S</b> 0	Back- light	Acc. Class	Tariff	SO pulse output
0255 PRO380-S	Yes	Yes	3	4	100A	х	LCD	6+2	direct	2	yes	В	2	Selectable <sup>1</sup>
0256 PRO380-Mb	Yes	Yes	3	4	100A	M-bus	LCD	6+2	direct	2	yes	В	2	Selectable <sup>1</sup>
0257 PRO380-Mod	Yes	Yes	3	4	100A	Mod- bus	LCD	6+2	direct	2	yes	В	2	Selectable <sup>1</sup>

1 selectable options: 10.000-2.000-1.000-100-10-1-0.1-0.01





# PRO380 - MID CT B&D

The PRO380 CT series is a range of 4 module, three phase CT energy meters consisting of 3 different types each with their specific characteristics.

The meters have an exceptional combination of a high accuracy class (1/B & 0,5/C) and a broad temperature range of  $-25^{\circ}$ C to  $+70^{\circ}$ C.

The PRO380 CT series is available as a standard version (with a selectable S0 output) and as a Modbus or M-bus version. It can communicate and be programmed via an infrared input. The different communication modes have over 60 variables such as kWh, active and reactive energy, forward and reverse energy as well as Cos phi.

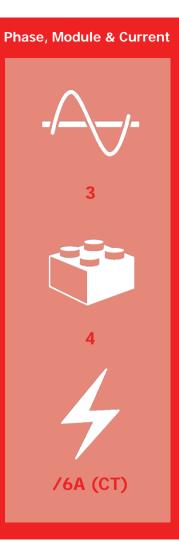
The PRO380 CT is equipped with a resettable day counter and the total energy usage can be calculated via 7 different modes. You can program the CT ratio at your convenience.

Article number	MID	MIR	Phase	Mod.	Cur.	Com.	Display	Digits	Con. mode	S0	Back- light	Acc. Class	Tariff	SO pulse output
0258 PRO380-S	Yes	Yes	3	4	/6A	х	LCD	Var. <sup>2</sup>	СТ	2	yes	В	2	Selectable <sup>1</sup>
0259 PRO380-Mb	Yes	Yes	3	4	/6A	M-bus	LCD	Var.2	СТ	2	yes	В	2	Selectable <sup>1</sup>
0260 PRO380-Mod	Yes	Yes	3	4	/6A	Modbus	LCD	Var. <sup>2</sup>	СТ	2	yes	В	2	Selectable <sup>1</sup>

<sup>1</sup> selectable options: 10.000-2.000-1.000-100-10-1-0.1-0.01

<sup>2</sup> variable; depending on the CT-ratio: 5+3 / 6+2 / 7+1 / 8+0





# **PRO380-Compact**

The PRO380-Compact is a three phase wall-mounted energy meter with its specific characteristics.

As we embrace the 'smart city', the need for compact metering solutions in space-conscious urban settings is on the rise. Our response? The PRO380-Compact. At a mere 12x6.5x2.1cm, it is the smallest MID-approved three phase meter, designed to effortlessly integrate into charging stations, lampposts, and much more.

The meter has an exceptional combination of a high accuracy class (B) and a broad temperature range of  $-40^{\circ}$ C to  $+70^{\circ}$ C.

The PRO380-Compact comes standard with Modbus communication. The meter has a baud rate range of 300 to 9600 and 3 parity settings (Even, none and odd).

Article number	MID	MIR	Phase	Cur.	Com.	Display	Digits	Con. mode	Back-light	Acc. Class	Tariff
0318 PRO380-Compact	Yes	No	3	45A	Modbus	LCD	Var. <sup>2</sup>	Direct	Yes	В	3





# **PRO-Flex**

The PRO-flex is a practical and simple solution that allows you to measure the energy consumption of mobile energy users/appliances.

The PRO-flex can easily be carried to different locations, so there is no need to build a complete and costly infrastructure per location.

### Highlights

- unique design
- inepro MID-approved meter inside
- suitable for billing purposes
- IP 44 (cable) 54 (casing)
- 1,5mm2 or 2,5mm2 H07RN-F cable
- Schuko or CEE16 plug
- cable length 2 x 50cm
- max 16A

Article number	MID	MIR	Phase	Cur.	Com.	Display	Con. mode	Back- light	Acc. Class	Plug	Cable
0276	Yes	Yes	3	16A	х	LCD	Direct	Yes	В	Schuko	2,5mm <sup>2</sup> H07RNF
0283	Yes	Yes	3	16A	х	LCD	Direct	Yes	В	CEE16	2,5mm <sup>2</sup> H07RNF



#### Phase & Current



# **PRO CT - Split Core**

The PRO CT series offers a range of split core current transformers designed for installation into existing plants where the removal of busbars/ cable lugs prevents installation of standard current transformers.

#### PRO24

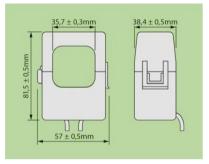
- Primary current: 100 to 300A
- 24mm cable aperture
- Integral 1m cable
- Snap together housing

#### PRO36

- Primary current: 250 to 600A
- 36mm cable aperture
- Integral 1m cable
- Snap together housing







Article number	Ratio	Cable apperture	Class	Burden
7010 PRO24-CT5-100c	100/5	24mm	3	1VA
7019 PRO24-CT5-150c	150/5	24mm	3	1VA
7012 PRO24-CT5-200c	200/5	24mm	1	1.5VA
7013 PRO24-CT5-250c	250/5	24mm	1	1.5VA
7014 PRO24-CT5-300c	300/5	24mm	1	1.5VA
7015 PRO36-CT5-250c	250/5	36mm	1	1.5VA
7017 PRO36-CT5-400c	400/5	36mm	0.5	1.5VA
7018 PRO36-CT5-600c	018 PRO36-CT5-600c 600/5		0.5	1.5VA

### **PRO CT - Solid Core**

The PRO CT series offers a range of solid core current transformers. The inepro solid core current transformers are perfectly suitable for installation in combination with a PRO380 CT smart energy meter.

#### PRO3010

- Primary current: 100 to 300A
- 23mm cable aperture

### PR05010

- Primary current: 400 to 600A
- 37mm cable aperture

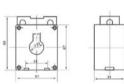
### PR08010

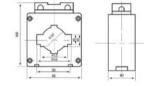
- Primary current: 600 to 1500A
- 50mm cable aperture

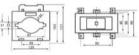












Article number	Ratio	Cable apperture	Class	Burden
7108 PRO3010-CT5-100	100/5	23mm	0.5	2.5VA
7101 PRO3010-CT5-150	150/5	23mm	0.5	5VA
7102 PRO3010-CT5-200	200/5	23mm	0.5	5VA
7103 PRO3010-CT5-250	250/5	23mm	0.5	5VA
7110 PRO3010-CT5-300	300/5	23mm	0.5	5VA
7112 PRO5010-CT5-400	400/5	37mm	0.5	5VA
7113 PRO5010-CT5-500	500/5	37mm	0.5	5VA
7114 PRO5010-CT5-600	600/5	37mm	0.5	5VA
7115 PRO8010-CT5-1000	1000/5	50mm	0.5	10VA

### **N** series



Article number	MID	MIR	Phase	Mod.	Cur.	Com.	Con. mode	Required power supply
0513 N1	No	No	1	1	40A	Modbus	Screws	12VDC
0514 N380	No	No	3	4	40A	Modbus	Screws	12VDC
0515 N1 CT	No	No	1	1	100A <sup>1</sup>	Modbus	Screws	12VDC
0516 N380 CT	No	No	3	4	100A <sup>1</sup>	Modbus	Screws	12VDC

### Optimise your power distribution

The **inepro** Metering N series has been developed with a focus on load balancing in the context of EV charging. This could be a home, a company building or even a charging hub in the city. The N meter is an important tool used in energy management systems to optimise power distribution and reduce costs. It allows users to monitor and manage power consumption at different points in a building or facility, ensuring that energy is distributed evenly and efficiently.

#### N1

The N1 meter is a single phase meter, suitable for load balancing in residential and small commercial environments. It offers a compact and easy-to-use design in which the already connected CT clamps can be clipped over the cables. The Modbus register map is very similar to the PRO series. An extra (external) 12V power supply is required for the proper functioning of this load-balancing hardware.

#### N380

The N380 meter is a three phase meter designed for load balancing in industrial and commercial environments. It features a compact and user-friendly design that allows for easy installation, as the CT clamps can be clipped over the cables. Its Modbus register map is similar to that of the PRO series. To ensure the proper functioning of this loadbalancing hardware, an external 12V power supply is required.

### **IR Eye Adapter**









The IR Eye adapter enables seamless data reading and remote configuration for our electricity meters. Infrared (IR) communication technology allows users to effortlessly retrieve consumption data and exchange settings. Simply place the reading head of the IR Eye adapter over the meter's infrared diode to capture relevant information and configure settings remotely using a laptop or other mobile device.

Whether you are a home user looking to monitor consumption or a professional in the field looking for efficient configuration solutions, the IR Eye adapter meets all your needs.







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