ProData® DATA LOGGER

Ethernet

Modbus-Ethernet gateway

Memory 32 MB

Pulse inputs and Pulse outputs

Thermistor input

Threshold value monitoring

Smart and compact:
Save energy costs through the universal data logger

- Basis for a comprehensive energy management system (ISO 50001)
- Mapping of all consumption and process data (current, water, gas, steam, pressure, etc.)
- Monitoring of switching statuses (e.g. circuit breaker, etc.)
- Analysis of energy consumption and operating hours
- Flexible integration in superordinate systems (Modbus-Ethernet gateway)
- Long-term storage of data with 32 MB onboard memory
- Saving of 24 differential monthly energy values as well as maximum power values - for each of the fifteen individual inputs on board
- Direct reading out and analysis of data via GridVis® software
- Free programming of 64 independent weekly timers
- Tariff conversion: Each digital input can be assigned a selected tariff from 1 to 8

Universal data logger for all consumption media

- 15 digital / pulse inputs
- 3 digital outputs, switchable via Modbus, weekly timer, threshold value and temperature monitoring
- Temperature measurement input
- Ethernet interface (Modbus TCP/IP, NTP ...)
- RS485 (Modbus RTU, slave, up to 115 kbps)
- 32 MB flash data memory
- Clock and battery function
- 64 weekly timers
- Threshold value monitoring
- Modbus-Ethernet gateway functionality
- Saving of minimum and maximum values (with time stamp)
- Configurable records, can be read out via RS485 and Ethernet

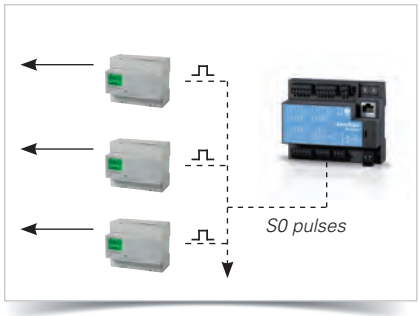


Fig.: Easy integration of existing meters

Applications

- EnMS per ISO 50001
- Integration of previously installed pulse counters in an EnMS
- Logging of non-electrical values
- Generation of performance indicators (key figures)
- Logging and monitoring of status messages
- Generation of alarms
- Ethernet-Modbus-Slave gateway

Fig.: Consolidation of diverse consumption media

Ethernet with gateway functionality

- Communication via Ethernet and Modbus RS485
- Simple integration in the LAN network
- Rapid and reliable data transfer
- Access to measurement data via various channels

Simple integration of existing meters

- Via Modbus-Ethernet Gateway integration and read-out of subordinate Modbus slave devices (e.g. electricity meters) possible with ease
- Conveniently capture measurements from all brands of meter with an S0 pulse output

Well thought-out to the last (vital) detail

- Internal clock generates precise data and time information for records and events
- Permanent operation of the clock thanks to integrated emergency battery
- Battery not permanently installed; as such convenient replacement possible

The ProData is the practical person's favourite

- Wide range power adapter (20 – 250 V AC, 20 – 300 V DC)
- Auto-Baud detection of the communication interface
- Screwable plug-in terminals
- Modbus address easily externally adjustable
- Rapid DIN rail installation

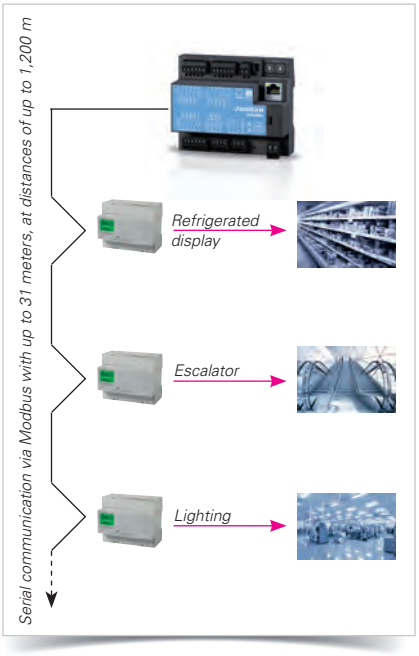
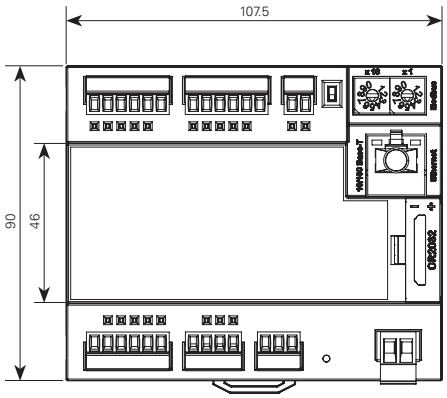


Fig.: Simple consolidation of Modbus meters

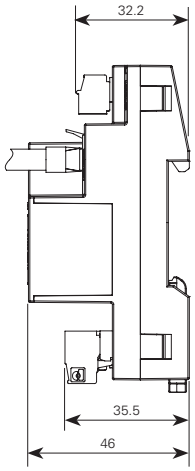
Fig.: Easy exchange of the battery during operation

Dimension diagrams

All dimensions in mm

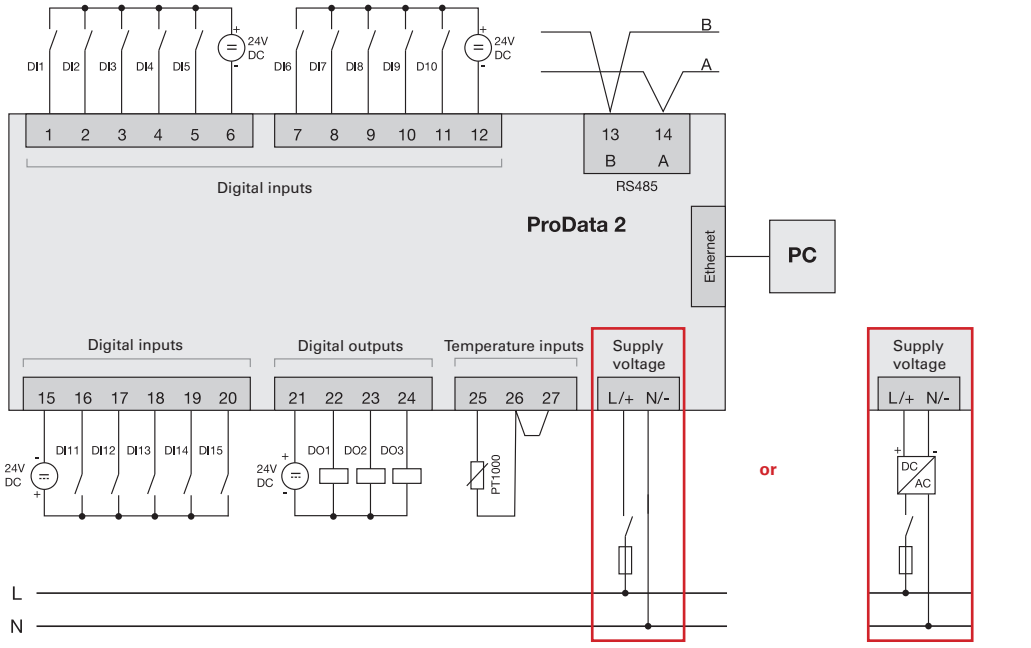


Front view



Side view

Typical connection



Connection example via an external power supply

Device overview and technical data

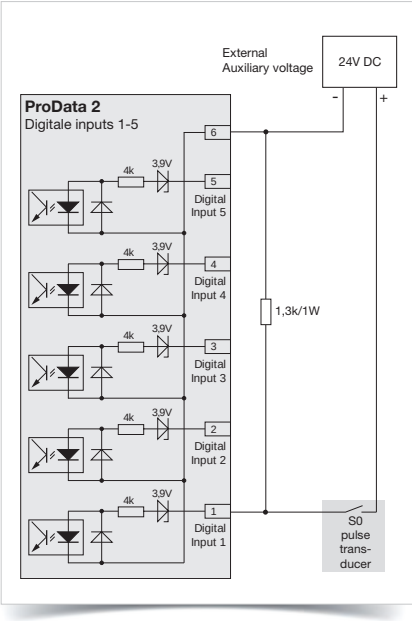


Fig.: S0 pulse input with external supply voltage and external plug-in resistor module*3

Fig.: S0 plug-in module (item no.: 52.24.111)

Comment: For detailed technical information please refer to the operation manual and the Modbus address list.

• = included - = not included

*1 Use as a Modbus RTU slave is not possible in this mode. The ProData is only able to pass on requests to a Modbus slave device; it cannot request Modbus slave devices itself.

*2 Optional additional functions with the packages GridVis®-Professional, GridVis®-Enterprise and GridVis®-Service.

*3 External resistor S0 plug-in module for connection to an S0 pulse transducer required (item no.: 52.24.111)

	ProData
Item number	**52.24.011**
Supply voltage	20 – 250 V AC or 20 – 300 V DC
Overvoltage category	300 V CAT II
Power consumption	max. 4 VA / 2 W

General	
Use in low voltage networks	•
Other measurements	
Operating hours measurement	•
Clock	•
Data logging	
Memory (Flash)	32 MB
Mean, minimum, maximum values	•
Alarm messages	•
Threshold value monitoring	•
Time stamp	•
Inputs / outputs	
Digital inputs	15
Digital outputs (as switch or pulse output)	3
Temperature measurement input	1
Password protection	•
Communication	
Interfaces	
RS485: 9.6 – 115.2 kbps	•
Ethernet 10/100 Base-TX (RJ-45 socket)	•
Protocols	
Modbus RTU, Modbus TCP	•
Modbus Gateway for Master-Slave configuration*1	•
NTP (time synchronisation)	•
DHCP	•
TCP/IP	•
ICMP (Ping)	•
Software GridVis®-Basic*2	
Online and historic graphs	•
Databases (Janitza DB, Derby DB); MySQL, MS SQL with higher GridVis® versions)	•
Manual reports (energy)	•
Topology views	•
Manual reading	•
Graph sets	•

Technical data	
Digital inputs and outputs	
Number of digital inputs	15
Supply voltage	20 – 30 V DC (SELV or PELV supply)
Pulse output (S0), maximum count frequency	25 Hz
Input signal present	> 18 V DC (typical 4 mA for 24 V)
Input signal not present	0 ... 5 V DC
Number of digital outputs	3
Supply voltage	20 – 30 V DC (SELV or PELV supply)
Switching voltage	max. 60 V DC
Switching current	max. 50 mAeff DC
Pulse output (energy pulse)	max. 20 Hz
Maximum line length	up to 30 m unscreened, from 30 m screened
Temperature measurement input	1
Update time	1 sec.
Suitable temperature sensor	PT100, PT1000, KTY83, KTY84
Total burden (sensor and cable)	max. 4 kOhm

Mechanical properties and others	
Weight	200 g
Device dimensions in mm (W x H x D)	107.5 x 90 x approx. 46
Battery	Lithium battery CR2032, 3 V (approval i.a.w. UL 1642)
Protection class per EN 60529	IP20
Assembly per IEC EN 60999-1 / DIN EN 50022	DIN rail mounting
Connection capacity of the terminals (digital inputs / outputs, temperature thermistor inputs) rigid / flexible Flexible with core end sheath without plastic sleeve Flexible with core end sheath with plastic sleeve	 0.2 to 1.5 mm² 0.2 to 1.5 mm² 0.2 to 1.5 mm²
Terminal connection capacity Serial interface Single core, multi-core, fine-stranded terminal pins, core end sheath	 0.2 to 1.5 mm² 0.2 to 1.5 mm²
Environmental conditions	
Temperature range	Operation: K55 (-40 ... +70 °C)
Relative humidity	Operation: 0 to 95 % RH
Operating altitude	0 ... 2,000 m above sea level
Pollution degree	2
Mounting position	any
Electromagnetic compatibility	
Electromagnetic compatibility of operating equipment	Directive 2004/108/EC
Electrical appliances for application within particular voltage limits	Directive 2006/95/EC
Equipment safety	
Safety requirements for electrical equipment for measurement, regulation, control and laboratory use – Part 1: General requirements	IEC/EN 61010-1
Particular requirements for Test and measurement current circuits	IEC/EN 61010-2-030
Noise immunity	
Class A: Industrial environment	IEC/EN 61326-1
Electrostatic discharge	IEC/EN 61000-4-2
Electromagnetic fields 80 – 1000 MHz	IEC/EN 61000-4-3, EMV-ILA V01-03
Electromagnetic fields 1000 – 2700 MHz	IEC/EN 61000-4-3, EMV-ILA V01-03
Rapid transients	IEC/EN 61000-4-4, EMV-ILA V01-03
Surge voltages	IEC/EN 61000-4-5, EMV-ILA V01-03
HF conducted interferences 0.15 – 80 MHz	IEC/EN 61000-4-6, EMV-ILA V01-03
Voltage dips, short term interruptions, voltage variations and frequency change	IEC/EN 61000-4-11, EMV-ILA V01-03
Emissions	
Class B: Residential environment	IEC/EN 61326-1
RFI Field Strength 30 – 1000 MHz	IEC/CISPR11/EN 55011
Radiated interference voltage 0.15 – 30 MHz	IEC/CISPR11/EN 55011
Radiated interference voltage 9 – 150 MHz	EMV-ILA V01-03
Safety	
Europe	CE labelling
USA and Canada	UL labelling
Firmware	
Firmware update	Update via GridVis® software. Firmware download (free of charge) from the website: http://www.janitza.com/downloads/

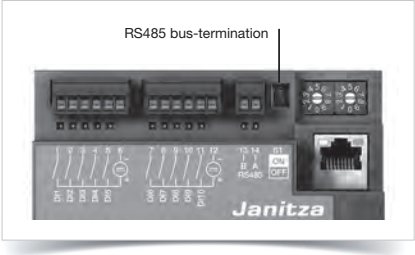


Fig.: Modbus / RS485 termination

Comment: For detailed technical information please refer to the operation manual and the Modbus address list.

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