

Processors

High Performance Embedded Pro

Main features

- ✓ Designed for edge computing, analysis and datalogging applications
- ✓ 512 MB DDR3 RAM memory and 8 GB eMMC flash memory
- ✓ RS-232/485, Ethernet & Wi-Fi
- ✓ Embedded Linux Yocto O.S.

Technical features

Category	Parameters	Value
Mechanical characteristics	Dimensions (Width x High x Length)	35 x 88,5 x 48 mm (2 DIN rail modules)
Control unit	Processor	ARM A7 800 MHz
	RAM memory	512 MB
	Flash memory	8 GB eMMC
	Wi-Fi	802.11 b/g/n (2.4 GHz)

High Performance Embedded

Main features

- ✓ Designed for local monitoring and cloud management applications
- ✓ 512 MB DDR3 RAM memory and 512 MB NAND flash memory
- ✓ RS-232/485, Ethernet & Wi-Fi
- ✓ Embedded Linux Yocto O.S.

Technical features

Category	Parameters	Value
Mechanical characteristics	Dimensions (Width x High x Length)	35 x 88,5 x 48 mm (2 DIN rail modules)
Control unit	Processor	ARM A7 700 MHz
	RAM memory	256 MB
	Flash memory	512 MB NAND
	Wi-Fi	802.11 b/g/n (2.4 GHz)

Low cost embedded CPU

Main features

- ✓ Designed for real-time data capturing, reception and sending
- ✓ Dual-core @ 240 MHz
- ✓ 8 MB SRAM & 8 MB Flash
- ✓ Integrated 2.4 GHz Wi-Fi

Technical features

Category	Parameters	Value
Mechanical characteristics	Dimensions (Width x High x Length)	35 x 88,5 x 48 mm (2 DIN rail modules)
Control unit	Processor	ESP32 Dual-core 32-bit 240 MHz
	SRAM memory	8 MB
	Flash memory	8 MB
	Wi-Fi	802.11 b/g/n (2.4 GHz)
	BT (optional)	BT/BLE dual mode

Power supply

230 Vac Power supply

Main features

- ✓ Versatile, universal and robust
- ✓ Reset button configurable via software
- ✓ Multi-voltage and multi-frequency switching regulator
- ✓ Up to 10 modules connected to the same power supply

Technical features

Category	Parameters	Value
Power supply	Power	85...264 Vac / 120...370 Vdc
	Frequency	47...63 Hz
	Consumption	10,5 VA / 6,5 W
Mechanical characteristics	Dimensions (Width x High x Length)	17,5 x 88,5 x 48 mm (1 DIN rail module)
User interface	Button	Reset button

12/24 Vdc Power supply

Main features

- ✓ Ideal for machinery applications
- ✓ Reset button configurable via software
- ✓ 12 & 24 Vdc power supply
- ✓ Up to 10 modules connected to the same power supply

Technical features

Category	Parameters	Value
Power supply	Power	9...36 Vdc
	Consumption	0,5...20 W
Mechanical characteristics	Dimensions (Width x High x Length)	17,5 x 88,5 x 48 mm (1 DIN rail module)
User interface	Button	Reset button

Battery

Supercapacitor

Main features

- ✓ Ideal to avoid a power supply failure of your monitoring
- ✓ Alarms sending in case of failure of the electrical supply
- ✓ Average battery life of 2 minutes
- ✓ Perfect to monitor critical applications

Technical features

Category	Parameters	Value
Mechanical characteristics	Dimensions (Width x High x Length)	35 x 88,5 x 48 mm (2 DIN rail modules)
Supercapacitor	Average lifetime	2 minutes

Communications

RS-232, RS-485 & Ethernet

Main features

- ✓ Simultaneous communication via RS-232 and RS-485
- ✓ Baudrate configurable from 9600 to 115200 bps
- ✓ 10/100 Mbps Ethernet port
- ✓ Galvanically isolated communications

Technical features

Category	Parameters	Value
Mechanical characteristics	Dimensions (Width x High x Length)	17,5 x 88,5 x 48 mm (1 DIN rail module)
Serial interface	Type	RS-232/485
	Baudrate	9600 ... 115200 bps
Network interface	Type	Ethernet
	Working speed	10/100 Mbps

RS-232, RS-485 & GPRS

Main features

- ✓ Simultaneous communication via RS-232 and RS-485
- ✓ Baudrate configurable from 9600 to 115200 bps
- ✓ Quad band GSM/GPRS
- ✓ Connector for SMA external antenna

Technical features

Category	Parameters	Value
Mechanical characteristics	Dimensions (Width x High x Length)	17,5 x 88,5 x 48 mm (1 DIN rail module)
Serial interface	Type	RS-232/485
	Baudrate	9600 ... 115200 bps
Radio interface	Type	Quad-band GSM/GPRS
	Frequency bands	850 / 900 / 1800 / 1900 MHz
	Antenna	External
	Connector	SMA

GPRS (for High Performance Embedded)

Main features

- ✓ Quad band GSM/GPRS
- ✓ 850 / 900 / 1800 / 1900 MHz
- ✓ Connector for SMA external antenna
- ✓ Low cost CPU for edge computing applications (optional)

Technical features

Category	Parameters	Value
Mechanical characteristics	Dimensions (Width x High x Length)	17,5 x 88,5 x 48 mm (1 DIN rail module)
Radio interface	Type	Quad-band GSM/GPRS
	Frequency bands	850 / 900 / 1800 / 1900 MHz
	Antenna	External
	Connector	SMA

Metering & Control

Three-phase energy meter

Main features

- ✓ Active and reactive energy, power, voltage, current, frequency and cos phi
- ✓ 4 quadrant measure including single and three phase parameters
- ✓ Precision of class 1 active and class 2 reactive
- ✓ Indirect measurement through current transformers. Split and closed core.

Technical features

Category	Parameters	Value
Mechanical characteristics	Dimensions (Width x High x Length)	35 x 88,5 x 48 mm (2 DIN rail module)
Measurement circuit	Current inputs	Indirect
	Metering capacity	1 Three-phase / 3 Single-phase circuits
	Current transformer	In / 1 A
	Voltage and current wire section	2,5 mm ²
Precision class	Precision	Class 1 active and class 2 reactive

Double three-phase energy meter

Main features

- ✓ Active and reactive energy, power, voltage, current, frequency and cos phi
- ✓ 4 quadrant measure including single and three phase parameters
- ✓ Precision of class 1 active and class 2 reactive measuring two three-phase or six single-phase circuits
- ✓ Indirect measurement through current transformers. Split and closed core.

Technical features

Category	Parameters	Value
Mechanical characteristics	Dimensions (Width x High x Length)	35 x 88,5 x 48 mm (2 DIN rail module)
Signal relays	Current inputs	Indirect
	Metering capacity	2 Three-phase / 6 Single-phase circuits
	Current transformer	In / 1 A
	Voltage and current wire section	2,5 mm ²
Precision class	Precision	Class 1 active and class 2 reactive

5 Digital inputs and 2 Power relays

Main features

- ✓ Configurable as dry contact (w/o internal tension) or wet contact (with internal tension)
- ✓ Inputs activation via external 0-24 VDC signal or internal ± 12 VDC power supply (for PNP or NPN sensors)
- ✓ Working modes: input, pulse counter and pulse width time counter. Pulse capturing up to 1 ms
- ✓ Maximum activation current of the relays of 6A

Technical features

Category	Parameters	Value
Mechanical characteristics	Dimensions (Width x High x Length)	17,5 x 88,5 x 48 mm (1 DIN rail module)
Digital inputs	Type, number and voltage	5 digital inputs 0-24 Vdc
	Minimum voltage and current	0 Vdc / 160 μ A
	Maximum voltage and current	30 Vdc / 12 mA
	Input sensitivity	0-7 Vdc : 0; 8-30 Vdc : 1
	Minimum pulse duration	1 ms
	Counters	Counters of 32 bits / Max. frequency 250 Hz
Relay outputs	Type	NO
	Max. operating parameters	6A, 250VAC, $\cos=1$, 70°C

10 Digital inputs

Main features

- ✓ Configurable as dry contact (w/o internal tension) or wet contact (with internal tension)
- ✓ Inputs activation via external 0-24 VDC signal or internal ± 12 VDC power supply (for PNP or NPN sensors)
- ✓ Working modes: input, pulse counter and pulse width time counter. Pulse capturing up to 1 ms
- ✓ Pulse capturing up to 1 ms

Technical features

Category	Parameters	Value
Mechanical characteristics	Dimensions (Width x High x Length)	17,5 x 88,5 x 48 mm (1 DIN rail module)
Digital inputs	Type, number and voltage	10 digital inputs 0-24 Vdc
	Minimum voltage and current	0 Vdc / 160 μ A
	Maximum voltage and current	30 Vdc / 12 mA
	Input sensitivity	0-7 Vdc : 0; 8-30 Vdc : 1
	Minimum pulse duration	1 ms
	Counters	10 counters of 32 bits / Freq. max 250 Hz

7 Analogue inputs and 2 Power relays

Main features

- ✓ Analogue inputs with 4096 points of resolution
- ✓ Configurable as 0...10 V / 0...20 mA or 4...20 mA
- ✓ Maximum activation current of the relays of 6A
- ✓ Combine actuation with monitoring in the same module

Technical features

Category	Parameters	Value
Mechanical characteristics	Dimensions (Width x High x Length)	17,5 x 88,5 x 48 mm (1 DIN rail module)
Analogue inputs	Number, type and range	6 analogue inputs 0...10 V / 0...20 mA or 4...20 mA
	Transducer resolution	12 bits (4096 points)
Relay outputs	Type	NO
	Max. operating parameters	6 A, 250 Vac, cos=1, 70°C

12 Analogue inputs

Main features

- ✓ Analogue inputs with 4096 points of resolution
- ✓ Configurable as 0...10 V / 0...20 mA or 4...20 mA
- ✓ Ideal for applications of humidity, level and pressure monitoring
- ✓ Maximum accuracy with resolution of 4096 points

Technical features

Category	Parameters	Value
Mechanical characteristics	Dimensions (Width x High x Length)	17,5 x 88,5 x 48 mm (1 DIN rail module)
Analogue inputs	Number, type and range	6 analogue inputs 0...10 V / 0...20 mA or 4...20 mA
	Transducer resolution	12 bits (4096 points)

8 Signal relays NO/NC

Main features

- ✓ Signal relays configurable as NO or NC
- ✓ Activation/deactivation time configurable
- ✓ Activation current up to 2 A
- ✓ Relays real time status on leds

Technical features

Category	Parameters	Value
Mechanical characteristics	Dimensions (Width x High x Length)	17,5 x 88,5 x 48 mm (1 DIN rail module)
Signal relays	Number	8 signal relays
	Type	NO or NC configured on demand
	Max. operating voltage	50 Vac/Vdc
	Max. activation current	2 A, 60 W, cos=1
	Min. signal duration	10 ms