



## web@ctrl1

Cloud enabled controller



Cloud I/O and control

Fully encrypted cloud interface

Configuration free setup

JSON based command interface

Serial data router

Industrial temp. Range -40 .. +85 °C

8 digital / analog inputs / outputs

4 Power switching and PWM outputs

Configurable inputs (voltage, timing, event)

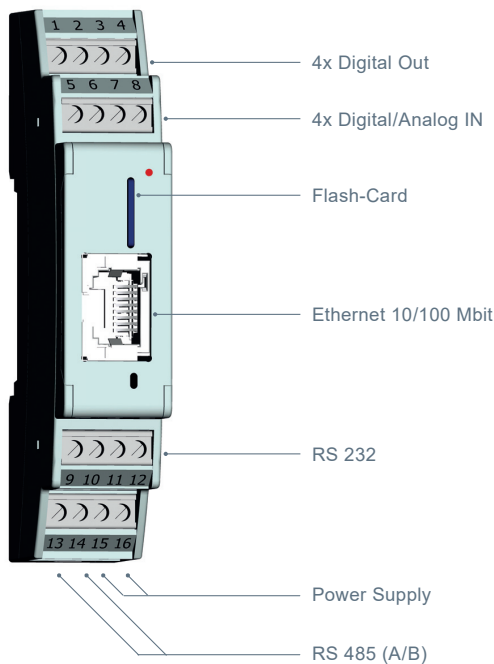
Power fail safe counters / elapsed time meters

User configurable logic engine

h2n App for tablet / smartphone

The web@ctrl1 routes serial interfaces to Ethernet and connects peripherals to the Cloud. Peripheral devices are connected via RS232 / RS485 interfaces or digital inputs. The web@ctrl1 can also read analog values and drive inductive loads with its digital outputs. In addition to routing of serial protocols, appliances and machines can be controlled from a cloud server via the web@ctrl1. Multiple web@IO Devices can transparently route serial connections over long distances using Ethernet / Internet. Additional Interfaces like CAN, I2C, 1-Wire, EIB are available for OEM versions of the product. The web@ctrl1 controller can optionally support Wi-Fi® and Bluetooth® Low Energy, Modbus and DMX Protocols.

The web@ctrl1 features cloud based configuration and supports software distribution to multiple devices via cloud. In contrast to conventional products, which respond to arbitrary connections from the Internet - a circumstance imposing a high security risk - the web@ctrl1 establishes a secure connection to a known cloud server on the local network or the Internet. The server then allows to safely connect to the web@ctrl1 using state of the art encryption technology. This enables private interconnection of multiple controllers and offers sophisticated visualization and services that are not possible with traditional control devices.



<b>Pin 1-4</b>	Digital Out (1..4)
<b>Pin 5-8</b>	Analog / Digital In(1..4)
<b>Pin 9</b>	RS 232 TX2 / RTS1
<b>Pin 10</b>	RS 232 RX2 / CTS1
<b>Pin 11</b>	RS 232 TX1
<b>Pin 12</b>	RS 232 RX1
<b>Pin 13</b>	RS 485 NEG (B)
<b>Pin 14</b>	RS 485 POS (A)
<b>Pin 15</b>	System Ground
<b>Pin 16</b>	Power Input

## General Data

<b>Dimensions (WxHxD)</b>	60 x 89 x 18,5 mm
<b>Mechanics</b>	DIN Rail Mount 1 TE
<b>Weight</b>	62 g
<b>Operating Temperature</b>	- 40 .. 85 °C
<b>Screw Connector</b>	0,14 ... 1,5 mm² solid / stranded
<b>ESD</b>	IEC 61000-4-2 up to 8 kV

## Power Supply

<b>Operating Voltage (VS)</b>	11 .. 32 V
<b>Power Consumption</b>	600 mW typ (no digital output active)

## Digital Output (IEC61131-2)

<b>Digital Output Voltage High</b>	(VS-0,1 V) .. VS
<b>Power Switch On Resistance</b>	100mΩ max at 25 °C
<b>Digital Output Current</b>	0,7 A
<b>PWM period time</b>	1 - 670 ms
<b>Output Short Circuit Current</b>	0,7 A cont. 1,4 A peak at 25 °C
<b>Output Current Off</b>	+/- 5 µA
<b>Turn on Voltage Slope</b>	3 V / µs typical
<b>Turn off Voltage Slope</b>	4 V / µs typical
<b>Digital Output Thermal Shutdown</b>	135 °C

## Analog / Digital Input (IEC61131-2)

<b>Analog Input Voltage Range</b>	0 .. 10 V
<b>Analog Input Resistance</b>	$R_i \geq 10 \text{ K}\Omega$
<b>Digital Input Threshold</b>	Configurable (0 .. 10 V)
<b>Digital Input Range</b>	- 0.5 .. 28 V
<b>Digital Input Current</b>	Programmable (0 / 1,5 mA)

## RS 232

<b>Signals</b>	TX, RX, RTS, CTS
<b>Baudrate</b>	115 kBaud max
<b>Max Input Voltage</b>	-25 .. 25 V
<b>Min Output Voltage</b>	-5 .. 5V

## RS 485

<b>Signals</b>	A+, B-; half duplex
<b>Baudrate</b>	250 kBaud max
<b>Max Differential Input Voltage</b>	-12 .. 12 V

## Ethernet

<b>Speed</b>	10/100 BaseT
<b>Connector</b>	Industrial RJ45 shielded