



# Controller 20

Item no. 21001211

The controller 20 is a highly efficient and powerful evaluation unit that manages the measuring results of one sensor. It is the low budget version of the controller 30 and can be used cost-efficiently for one measuring point.

The controller processes the sensor data and is the interface to the operator by displaying the concentration values. Being equipped with the newest high-tech microprocessor, the controller even copes with complex concentration calculations.

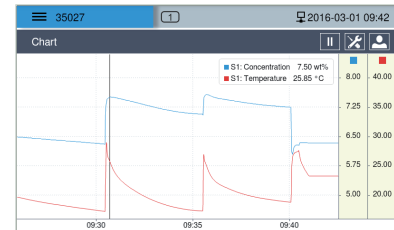
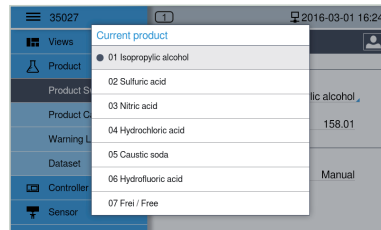
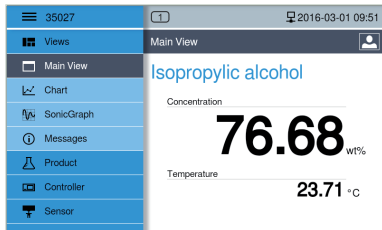
The large touch display with high-resolution color TFT ensures an optimal view under any light conditions. The operator can define his own identifiers of measuring points and products.

The clear, user-friendly and multi-lingual menu structure allows the intuitive system operation without extensive manual study.

The process data will be updated every second. They can be transmitted via several adjustable analog or relay outputs as well as via various interfaces, such as fieldbus or Ethernet.

## Features

- connection of one sensor
- output of concentration and temperature
- trend chart for a fast process course overview
- simple parameterization, e.g. of periphery
- analog and digital outputs, fieldbus, and Ethernet
- protection degree of device front IP65
- automatic self-monitoring
- simple installation und intuitive operation
- recording of events, e.g. exceeding of thresholds or change of product
- management of up to 16 products
- user management with authorization levels
- remote operation via browser (PC, tablet, etc.)



## Specifications

### Electrical data

power supply	100 - 240 V AC, 50 - 60 Hz optional: 24 V DC (19 to 32 V DC)
power consumption	230 V AC: typ. 25 W 24 V DC: typ. 25 W
fuse	external delay fuse with 2.5 A rated current
connections	clamp terminals, nominal cross section: 2.5 mm <sup>2</sup> (0.08 to 2.5 mm <sup>2</sup> )
EMC	compliance with directive 2014/30/EU
electrical security	compliance with directive 2014/35/EU

### Data interfaces

standard interface	RS-232 Ethernet (optional) USB 3.0
fieldbus (optional)	MODBUS RTU MODBUS TCP PROFIBUS DP PROFINET CAN
connection to sensor	bus cable, maximum 1000 m (3280 ft) length (optional longer)

## Outputs

analog outputs	2 x 4...20 mA (0...20 mA for status information), active burden: max. 600 Ω isolated to the device individual configuration
digital outputs	2 x relays max. switching voltage: 24 V AC/DC max. continuous current: 2 A AC/DC (L/C free load) protective circuit: transient voltage suppression diode (800 W, > 33 V) isolated among each other and to the device individual configuration


## Inputs

analog inputs	1 x 4...20 mA (0...20 mA for status information), passive burden: max. 200 Ω isolated to the device
digital inputs	4 x binary inputs switching level: 1 signal („H“) ≥ 19 V DC, 0 signal („L“) ≤ 17 V DC isolated to the device

## Housing

dimensions	front panel: 260 x 133 mm (10.2" x 5.2") panel cut-out: 242 x 122 mm (9.5" x 4.8") installation depth: 250 mm (9.8")
material	powder-coated steel front panel: anodized aluminium display protection: glass
weight	approx. 3.2 kg (7 lb)
degree of protection	IP30 (NEMA 2), front: IP65 (NEMA 4)
ambient temperature range	0 to 50 °C (30 °F to 120 °F)

## User interfaces

display 	TFT color display diagonal 7" (17.8 cm) 800 x 480 pixel resolution with LED backlight
operation	touch screen, remote via browser