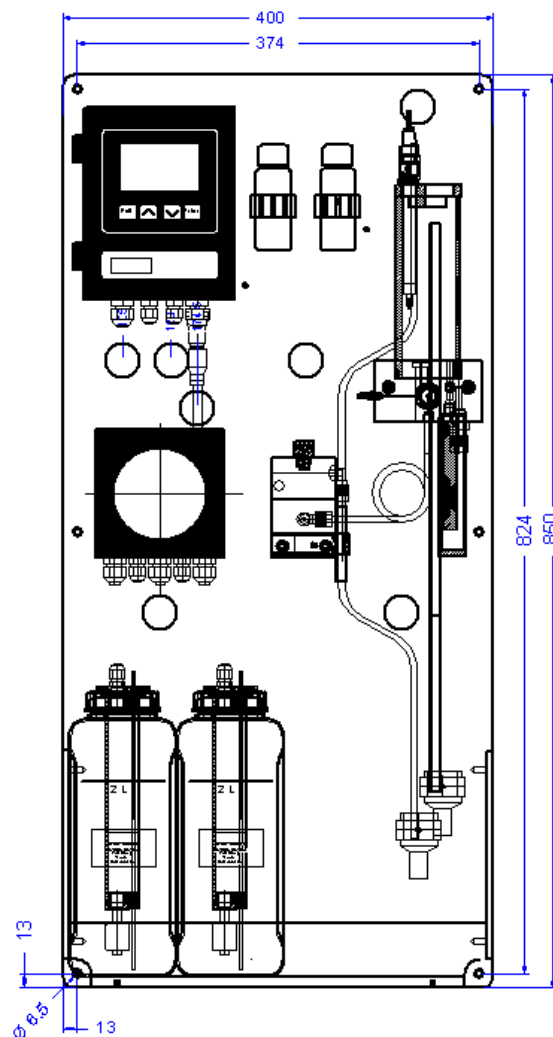


Complete monitoring system for the automatic, continuous measurement of chlorine and other disinfectants (e.g. monochloramine) in potable water, swimming pools, cooling water, hot water loops and effluent.

**Monitor AMI Codes-II**

- For the continuous online determination of disinfectants based on the DPD colorimetric method (EN ISO 7393-2; APHA 4500 Cl-G).
- Measurement values : free chlorine / chlorine dioxide / iodine or bromine using DPD+Buffer or monochloramine / ozone using DPD+Buffer&KJ, flow and if installed pH and temperature.
- Also applicable for water containing additives like cyanuric acid.
- Complete system including measurement and control electronics, photometer, flow indicator, reaction chamber, reagent dosing system and reagent containers.
- Integrated pH measurement with temperature compensation (available as option).
- All usual dosing devices for disinfectants and pH control can be connected either through relays or analog output signals. Two independent controllers can operate simultaneously.
- Dosing of disinfectant can be interrupted automatically with an external signal, e.g. during sample flow interruption or filter backwashing.
- Two (optionally three) selectable measurement values are available as analog output signals.
- Alarm display and activation of alarm relay when user defined, critical limits for a measurement value are reached.
- Continuous, automatic monitoring of main instrument functions (dirty photometer, sample flow, reagents).
- Large back-lit LCD display showing all measured values and status information simultaneously.
- Factory tested, ready for installation and operation.



**Options:**

- Communication interface
- pH option containing pH sensor, temperature sensor, cables and electronics board.

**Accessory:**

- Chemical cleaning module. For details please see separate data sheet no. DenA82312000.

Order Nr.	Monitor AMI Codes-II	A-25.441.100.0
Option:	[ ] 3 <sup>rd</sup> current signal output (0/4 – 20mA)	A-81.420.050
	[ ] Profibus DP & Modbus RTU interface (RS-485)	A-81.420.020
	[ ] USB interface	A-81.420.042
Option:	[ ] pH and temperature measurement	A-87.127.020

**Disinfectant measurement**

**Measuring range:** Accuracy:

<b>Ozone</b>	
0.000 – 1.000 ppm	± 0.005 ppm

<b>HOCl, free chlorine, monochloramine</b>	
0.00 – 1.00 ppm	± 0.01 ppm
1.00 – 3.00 ppm	± 0.06 ppm
3.00 – 5.00 ppm	± 0.2 ppm

<b>Chlorine dioxide, iodine, bromine</b>	
0.00 – 2.00 ppm	± 0.02 ppm
2.00 – 6.00 ppm	± 0.12 ppm

**Response time:**  
90% of change of excessive Cl in 60 seconds after sample entered flow cell.

Cycle time free chlorine: 1 – 12 min.

**pH (option):**  
Measuring range: pH 2 - 12  
Resolution: 0.01 pH

**Temperature measurement (Option)**  
with Nt5k sensor  
Measuring range : -30 to +100 °C  
Resolution : 0.1 °C

**Transmitter Specifications and Functionality**

Electronics case: Aluminum  
Protection degree: IP 66 / NEMA 4X  
Display: backlit LCD, 75 x 45 mm  
Electrical connectors: screw clamps  
Ambient temperature: -10 to +50 °C  
Limit range of operation: -25 to +65 °C  
Storage and transport: -30 to +85 °C  
Humidity: 10 to 90 % relative, non condensing

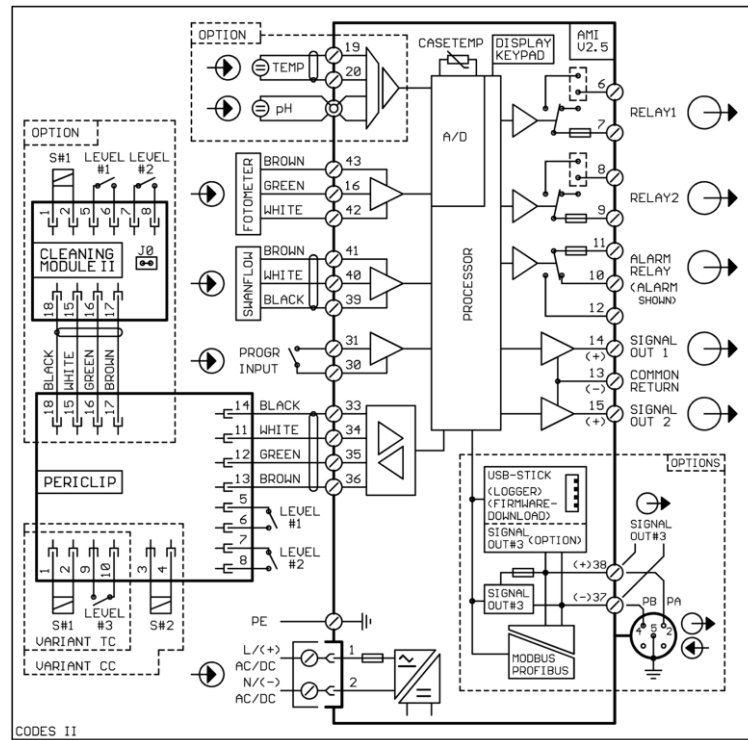
**Power supply**  
Voltage: 100 - 240 VAC (± 10 %), 50/60 Hz (± 5 %) or 24 VDC (± 10 %)  
Power consumption: max. 30 VA

**Operation**  
Easy operation based on separate menus for "Messages", "Diagnostics", "Maintenance", "Operation" and "Installation".  
User menus in English, German, French and Spanish  
Separate, menu specific password protection.  
Display of process value, alarm status and time during operation.  
Storage of event log, and alarm log and calibration history.  
Storage of the last 1'500 data records in logger with selectable time interval.

**Safety features**  
No data loss after power failure, all data is saved in non-volatile memory. Over-voltage protection of in- and outputs.  
Galvanic separation of measuring inputs and signal outputs.

**Transmitter temperature monitoring**  
With programmable high/low alarm limits.

**Electrical Connection Scheme**



**Real-time clock with calendar**

For action time stamp and pre-programmed actions.

**1 Alarm relay**

One potential free contact for summary alarm indication for programmable alarm values and instrument faults.  
Maximum load: 1A / 250 VAC

**1 Input**

One input for potential-free contact. Programmable hold or remote off function.

**2 Relay outputs**

Two potential-free contacts programmable as limit switches for measuring values, controllers or timer with automatic hold function.  
Rated load: 1A / 250 VAC

**2 Signal outputs (3<sup>rd</sup> optional)**

Two programmable signal outputs for measured values (freely scaleable, linear or bilinear) or as continuous control outputs (control parameters programmable) as current source. 3<sup>rd</sup> signal output selectable as current source or current sink.  
Current loop: 0/4 - 20 mA  
Maximum burden: 510 Ω

**Control functions**

Relays or current outputs programmable for 1 or 2 pulse dosing pumps, solenoid valves or for one motor valve.  
Programmable P, PI, PID or PD control parameters.

**1 Communication interface (option)**

- RS485 interface (galvanically separated) with Fieldbus protocol Modbus RTU or Profibus DP
- 3<sup>rd</sup> Signal output
- USB interface

**Monitor Data**

**Sample conditions**

Water consumption:	min. 10 l/h
Water inlet pressure	0.15 to 2 bar
Sample temperature:	5 to 50 °C

**Flow cell and connections**

Made of acrylic glass with water inlet filter and needle valve.  
Openings for pH and temperature sensors.  
Inlet tubing: 6 x 8 mm  
Outlet pressure: atmospheric drain  
Outlet tubing: 15 x 20 mm (1/2")

**Panel**

Panel dimensions:	400 x 850 x 200 mm
Panel material:	PVC
Weight:	12.0 kg