# JA

Data Sheet

## RACK MOUNTING (96X96) SINGLE READING SYSTEMS

**JA / JA PRO** control instruments are a series of **rack mounting (96x96)** single reading systems.

It can set and monitor: pH, ORP, chlorine (depending on the probe: total chlorine, free chlorine, chlorine dioxide, hydrogen peroxide, ozone, bromine or paracetic acid) and conductivity with **automatic range and probe / product selection (uS/S - Ohm - TDS / PPM - Concentration H3PO4 - H2SO4 - HNO3 - HCl - NaOH - NaCl)**

**JA** models have: 2 setpoints (on/off, proportional), 0-20 mA or 4-20 mA output proportional to read value and programmable in the reading range and flow input.

**JA PRO** models version have: 2 setpoints (on/off, proportional), standby input, flow input, alarm output, 0-20 mA or 4-20 mA output proportional to read value and programmable in the reading range, opto coupled output, MODBUS communication.

Avalilable also low voltage 9-18VDC or 18-36VDC power supply.

Controller accuracy: 0,3% based on full scale reading.

Available IP54 protection cover.

R30925

JA PRO Modbus

## MODELS

| JA | JA PRO | MEASURE |
|---|---|---|
| **JAPH** | **JAPH PRO** | pH |
| **JARH** | **JARH PRO** | ORP |
| **JACL** | **JACL PRO** | Chlorine |
| **JACD** | **JACD PRO** | Conductivity |
| **JACDIND** | **JACDIND PRO** | Inductive Conductivity |

**INPUT SIGNAL**
pH / ORP: BNC; impedance > $10^{12}$ Ω
Chlorine / Conductivity: connection board

**FLOW INPUT**

**2 ON/OFF / PROPORTIONAL / PID (JAPRO only) OUTPUT**
free voltage contact

**OPTO COUPLED OUTPUT (JA PRO only)**
To use with "IS" , "MF" , "PLUS" series pumps

**ALARM OUTPUT (JA PRO only)**
free voltage contact

**CURRENT OUTPUT**
Programmable 0/4-20mA (max 350 Ohm) galvanic isolated

**TEMPERATURE COMPENSATION**
PT100 sensor (0-200°C)

**DELAY**
Programmable delay at startup for probe polarization.

**DISPLAY**
Backlight LCD display.

**POWER SUPPLY**
85-264VAC; 18-36VAC; 9-18VDC or 18-36VDC; 50/60 Hz

**STAND-BY INPUT (JAPRO only)**

**MODBUS RTU PROTOCOL (JAPRO only)**

**EASY USER INTERFACE WITH NAVI-KEYS SYSTEM**

**PASSWORD PROTECTED SETTINGS**

**OPTION**
IP54 PROTECTION

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Specifications subject to change without notice | R2025

emec SIMPLE AS WATER

IQNET CERTIFIED MANAGEMENT SYSTEM
qualityaustria SYSTEM CERTIFIED
ISO 9001:2015 No.07728/0
ISO 14001:2015 No.00997/0
ISO 45001:2018 No.01121/0

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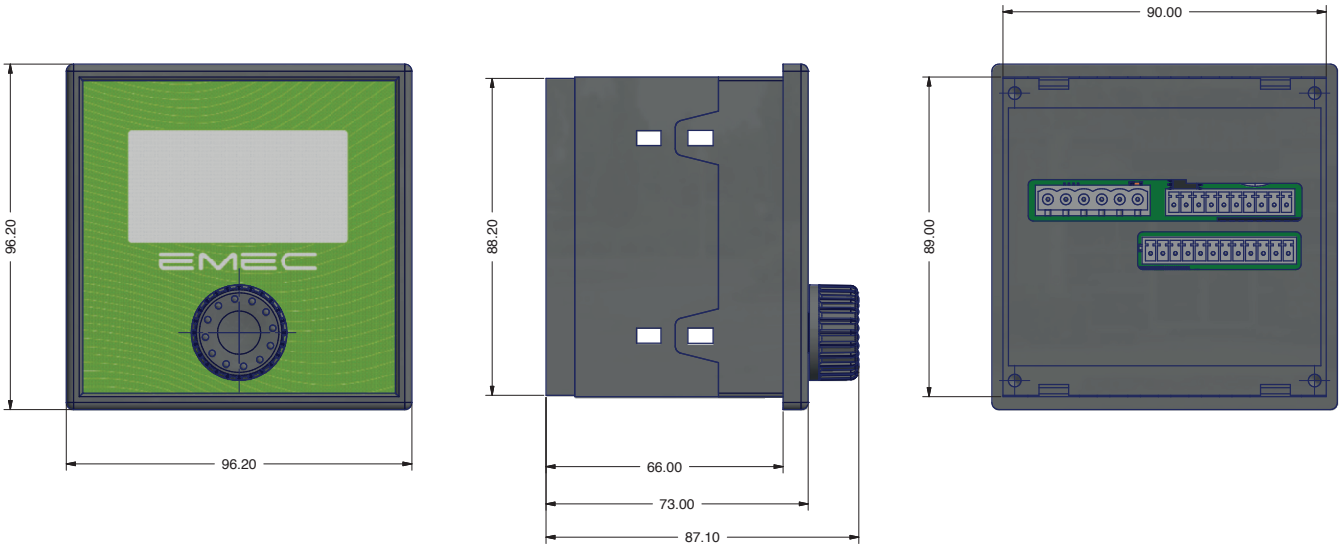
## RACK MOUNTING (96X96) SINGLE READING SYSTEMS

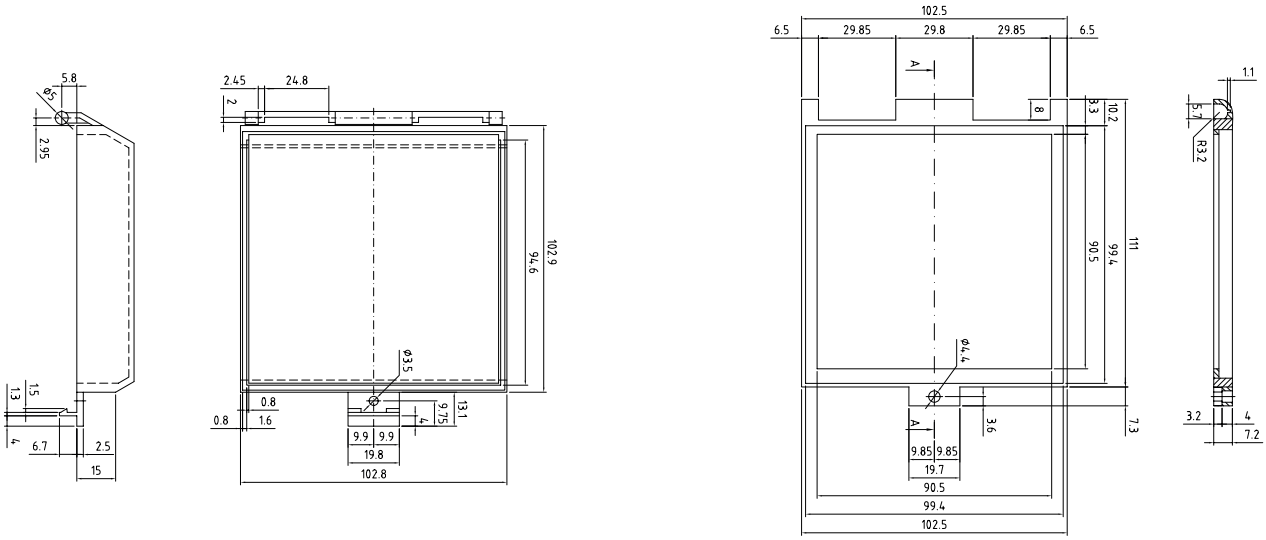
### DIMENSIONS JA




### OPTIONS

IP54 PROTECTION

### DIMENSIONS PROTECTION IP54





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## JAPH

| | JAPH | JAPH PRO |
|---|---|---|
| MEASURE | pH | |
| RANGE | 0-14 pH; resolution: 0,01 | |
| TEMPERATURE COMPENSATION | PT100 | |
| INPUT SIGNAL | BNC; impedance > $10^{12}$ Ω | |
| POWER SUPPLY | 24, 115, 230 VAC; 50/60 Hz | |
| FUSE | 0,5 A | |
| AVERAGE CONSUMPTION | 4 W | |
| FUNCTIONS | 2 Setpoints (Volt-Free Relay Contact)<br>Flow input<br>pH probe<br>Temperature probe<br>Programmable 0/4-20mA (max 500 Ohm) galvanic isolated | 2 Setpoints (Volt-Free Relay Contact)<br>Flow input<br>pH probe<br>Temperature probe<br>Programmable 0/4-20mA (max 500 Ohm) galvanic isolated<br>Alarm Output (Volt-Free Relay Contact)<br>Stand-by Input<br>MODBUS RTU<br>Opto Coupled Pulse Output |
| | | |
| ENVIRONMENT TEMPERATURE | 0°C ... 50°C (32°F ... 122°F) / 0-95% (non condensing) relative humidity | |
| PROTECTION | IP40 - on request IP54 | |
| POLLUTION LEVEL | 2 | |
| ENCLOSURE MATERIAL | PP | |
| TEST/CERTIFICATION | CE | |
| DIMENSIONS | refer to the drawing | |
| INSTALLATION | rack mounting | |

## JARH

| | JARH | JARH PRO |
|---|---|---|
| MEASURE | ORP | |
| RANGE | -999/+1999 mV; resolution: 1 | |
| TEMPERATURE COMPENSATION | PT100 | |
| INPUT SIGNAL | BNC; impedance > $10^{12}$ Ω | |
| POWER SUPPLY | 24, 115, 230 VAC [1]; 50/60 Hz | |
| FUSE | 0,5 A | |
| AVERAGE CONSUMPTION | 4 W | |
| CURRENT OUTPUT | Programmable 0/4-20mA (max 500 Ohm) galvanic isolated | |
| FUNCTIONS | 2 Setpoints (Volt-Free Relay Contact)<br>Flow input<br>ORP probe<br>Temperature probe<br>Programmable 0/4-20mA (max 500 Ohm) galvanic isolated | 2 Setpoints (Volt-Free Relay Contact)<br>Flow input<br>ORP probe<br>Temperature probe<br>Programmable 0/4-20mA (max 500 Ohm) galvanic isolated<br>Alarm Output (Volt-Free Relay Contact)<br>Stand-by Input<br>MODBUS RTU<br>Opto Coupled Pulse Output |
| | | |
| ENVIRONMENT TEMPERATURE | 0°C ... 50°C (32°F ... 122°F) / 0-95% (non condensing) relative humidity | |
| PROTECTION | IP40 - on request IP54 | |
| POLLUTION LEVEL | 2 | |
| ENCLOSURE MATERIAL | PP | |
| TEST/CERTIFICATION | CE | |
| DIMENSIONS | refer to the drawing | |
| INSTALLATION | rack mounting | |

## JACL

| | JACL | JACL PRO |
|---|---|---|
| MEASURE | Total chlorine<br>Free Chlorine<br>Chlorine Dioxide<br>Hydrogen Peroxyde<br>Ozone<br>Bromine<br>Peracetic Acid | |
| RANGE | autorange scale from 0 to 9999 (nS/uS/mS/S) | |
| TEMPERATURE COMPENSATION | PT100 | |
| INPUT SIGNAL | Board | |
| POWER SUPPLY | 24, 115, 230 VAC [1]; 50/60 Hz | |
| FUSE | 0,5 A | |
| AVERAGE CONSUMPTION | 4 W | |
| CURRENT OUTPUT | Programmable 0/4-20mA (max 500 Ohm) galvanic isolated | |
| FUNCTIONS | 2 Setpoints (Volt-Free Relay Contact)<br>Flow input<br>Chlorine probe<br>Temperature probe<br>Programmable 0/4-20mA (max 500 Ohm) galvanic isolated | 2 Setpoints (Volt-Free Relay Contact)<br>Flow input<br>Chlorine probe<br>Temperature probe<br>Programmable 0/4-20mA (max 500 Ohm) galvanic isolated<br>Alarm Output (Volt-Free Relay Contact)<br>Stand-by Input<br>MODBUS RTU<br>Opto Coupled Pulse Output |
| | | |
| ENVIRONMENT TEMPERATURE | 0°C ... 50°C (32°F ... 122°F) / 0-95% (non condensing) relative humidity | |
| PROTECTION | IP40 - on request IP54 | |
| POLLUTION LEVEL | 2 | |
| ENCLOSURE MATERIAL | PP | |
| TEST/CERTIFICATION | CE | |
| DIMENSIONS | refer to the drawing | |
| INSTALLATION | rack mounting | |

# RACK MOUNTING (96X96) SINGLE READING SYSTEMS

## JACD

| | JACD | JACD PRO |
|---|---|---|
| MEASURE | Conductivity (µS-S) - default setting | Conductivity (µS-S) - default setting |
| | Resistance (Ohm) | Resistance (Ohm) |
| | TDS (total dissolved solids) / ppm | TDS (total dissolved solids) / ppm |
| | / | Concentration (H3PO4 - H2SO4 - HNO3 - HCl - NaOH - NaCl) |
| RANGE | 0.1µS-100mS (K=1)<br>0.01µS-10mS (K=0.1)<br>0.001uS-1mS (K=0.01)<br>1uS-1S (K=10) | |
| TEMPERATURE COMPENSATION | PT100 | |
| INPUT SIGNAL | Board | |
| POWER SUPPLY | 24, 115, 230 VAC [1]; 50/60 Hz | |
| FUSE | 0,5 A | |
| AVERAGE CONSUMPTION | 4 W | |
| CURRENT OUTPUT | Programmable 0/4-20mA (max 500 Ohm) galvanic isolated | |
| FUNCTIONS | 2 Setpoints (Volt-Free Relay Contact)<br>Flow input<br>Conductivity probe<br>Temperature probe<br>Programmable 0/4-20mA (max 500 Ohm) galvanic isolated | 2 Setpoints (Volt-Free Relay Contact)<br>Flow input<br>Conductivity probe<br>Temperature probe<br>Programmable 0/4-20mA (max 500 Ohm) galvanic isolated<br>Alarm Output (Volt-Free Relay Contact)<br>Stand-by Input<br>MODBUS RTU<br>Opto Coupled Pulse Output |
| | | |
| ENVIRONMENT TEMPERATURE | 0°C ... 50°C (32°F ... 122°F) / 0-95% (non condensing) relative humidity | |
| PROTECTION | IP40 - on request IP54 | |
| POLLUTION LEVEL | 2 | |
| ENCLOSURE MATERIAL | PP | |
| TEST/CERTIFICATION | CE | |
| DIMENSIONS | refer to the drawing | |
| INSTALLATION | rack mounting | |

## JACD IND

| | JACD IND | JACD IND PRO |
|---|---|---|
| MEASURE | Inductive Conductivity (mS-S) - default setting | Inductive Conductivity (µS-S) - default setting |
| | Resistance (Ohm) | Resistance (Ohm) |
| | TDS (total dissolved solids) / ppm | TDS (total dissolved solids) / ppm |
| | / | Concentration (H3PO4 - H2SO4 - HNO3 - HCl - NaOH - NaCl) |
| RANGE | 0-3.000 mS 0-300.0 mS | |
| TEMPERATURE COMPENSATION | PT100 | |
| INPUT SIGNAL | Board | |
| POWER SUPPLY | 24, 115, 230 VAC [1]; 50/60 Hz | |
| FUSE | 0,5 A | |
| AVERAGE CONSUMPTION | 4 W | |
| CURRENT OUTPUT | Programmable 0/4-20mA (max 500 Ohm) galvanic isolated | |
| FUNCTIONS | 2 Setpoints (Volt-Free Relay Contact)<br>Flow input<br>Conductivity I. probe<br>Temperature probe<br>Programmable 0/4-20mA (max 500 Ohm) galvanic isolated | 2 Setpoints (Volt-Free Relay Contact)<br>Flow input<br>Conductivity I. probe<br>Temperature probe<br>Programmable 0/4-20mA (max 500 Ohm) galvanic isolated<br>Alarm Output (Volt-Free Relay Contact)<br>Stand-by Input<br>MODBUS RTU<br>Opto Coupled Pulse Output |
| | | |
| ENVIRONMENT TEMPERATURE | 0°C ... 50°C (32°F ... 122°F) / 0-95% (non condensing) relative humidity | |
| PROTECTION | IP40 - on request IP54 | |
| POLLUTION LEVEL | 2 | |
| ENCLOSURE MATERIAL | PP | |
| TEST/CERTIFICATION | CE | |
| DIMENSIONS | refer to the drawing | |
| INSTALLATION | rack mounting | |