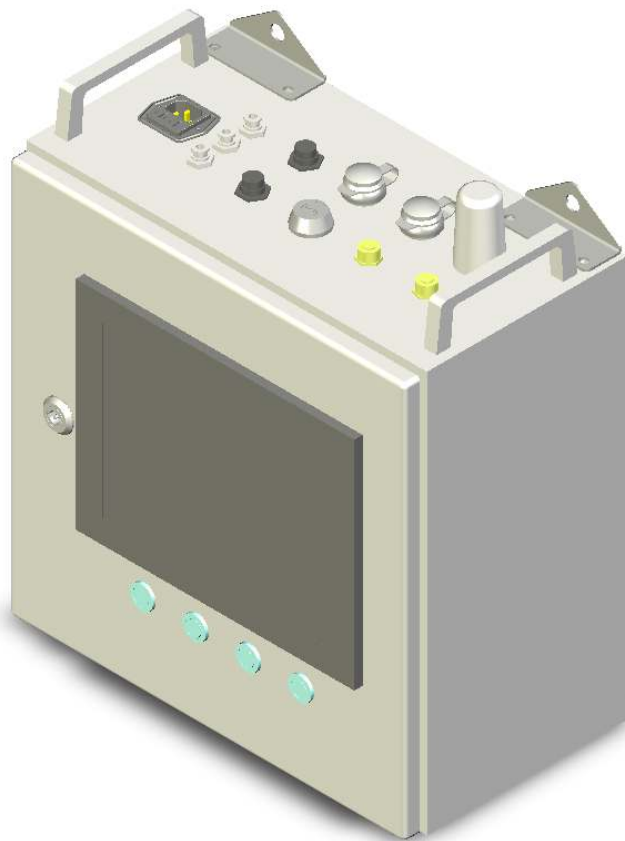


Rheonics Process Monitoring and Control System

RPS-A

- **Monitoring up to 6-station**
- **Monitoring & control up to 2-station**



Version 1.1

General

This document is the property of Rheonics and covers the overall mechanical and electrical specification of RPS-A (a small-scale monitoring & control system).

Introduction

This system is the miniature variant of the process monitoring & control solution by Rheonics. It consists of an industrial embedded PC mounted inside a stainless-steel cabinet with integrated 10.4" display and touch screen. The industrial PC runs a control application which measures viscosity, density using Rheonics inline sensors and optional pH/Level by external third-party sensors. The process is controlled by up to two electrical and two pneumatic outputs which can control valves/pumps/mixers/chillers, etc.

Industrial communication options include an Ethernet connection, WiFi and USB. Additional user interface elements include a buzzer + alarm light and 4 buttons including LEDs.

Specification

Table shows all options. However, the actual system will only contain the options that were selected during ordering.

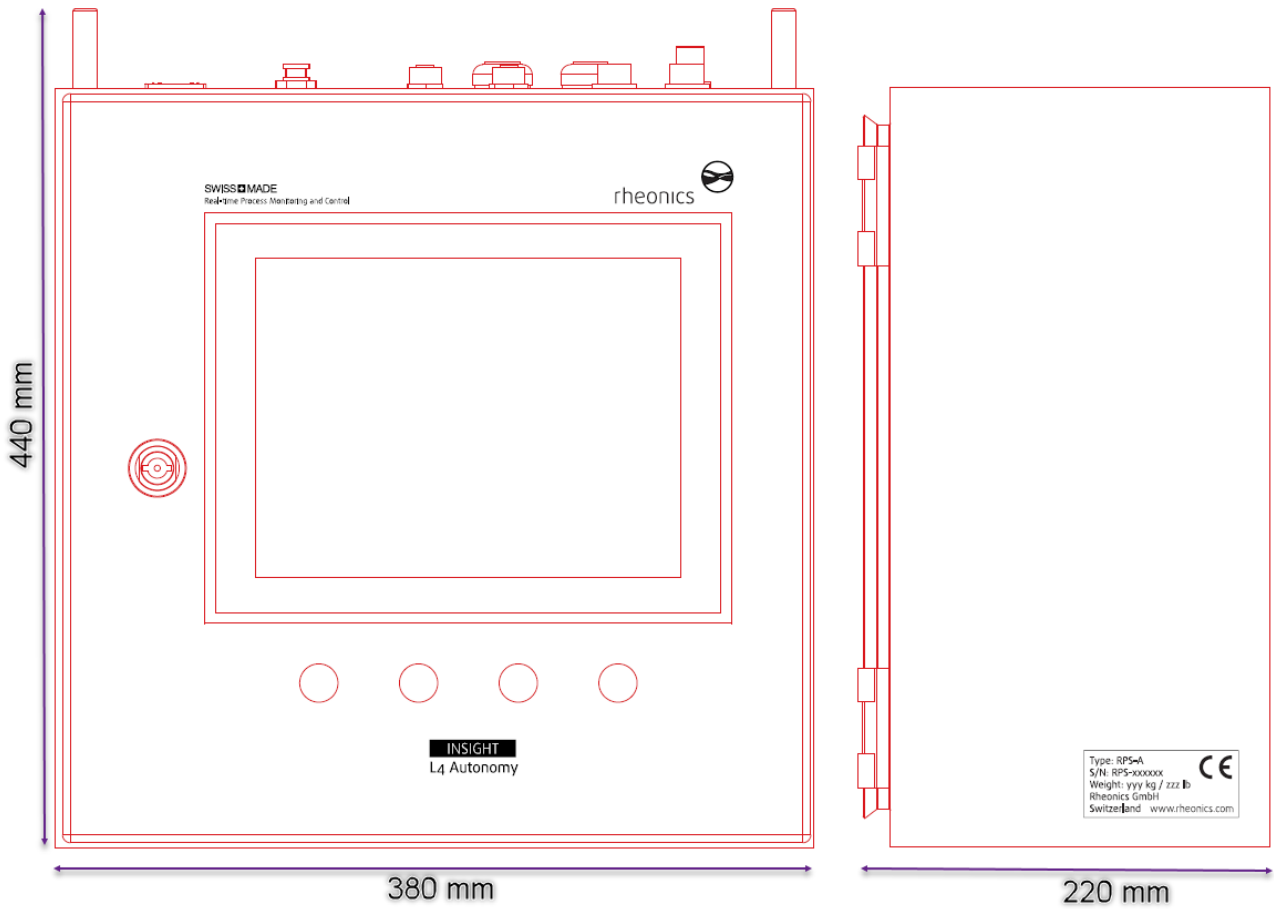
| Mechanical | | |
|---------------------------------------|---|---|
| Dimension | Width/Height/Depth, mm (inch) | 380/444/222 (15/17.5/8.75) |
| Weight | kg (lb) | 17 (38) |
| Protection | IP | IP54 |
| Electrical Interfaces | | |
| Rheonics M12 process connection | 1 x 12-pin M12 female connector for DVM/DVP/SRV/SRD sensor | Connected to internal SMET For monitoring only system, multiple M12 connections are possible up to 6x each cabinet |
| Power Input | 230VAC | Input range: 85VAC – 264VAC |
| Power Loss Max. Load | 4W | 50Va, cos phi 0.6 |
| Optional Electrical Interfaces | | |
| M12/4-pin process connection | 1 x 4-pin M12 female connector (pH/Level/other RS485 sensor) | Connected to the RS485 D-Sub of the industrial PC |
| Pneumatic Output | 2 x pneumatic process connection, 4mm, push-pull fitting | Pneumatic Valve 1: ADAM 6060, CH0 Pneumatic Valve 2: ADAM 6060, CH1 |
| Pneumatic Input | 1 x pneumatic process connection, 4mm, push-pull fitting | Input range: 4-10bar / 60-150psi |
| Human Interface Elements | | |
| Display | Projective capacitive 10-point 10,4" TFT LCD Touchscreen (1024*768) | Mounted on the industrial pc |
| Industrial PC | 4x2GHz, 8BG RAM, 128GB | Windows 10 IoT preinstalled |

| | | |
|--|--|---|
| Buttons | Piezo Buttons normal open | Actuating force: 2 – 6N Different colour options |
| USB | USB 3.0 | |
| Ethernet | Ethernet LAN 10/100 Mbit/s full duplex | Internal communication over Ethernet Completely plug & play service components |
| WIFI | 802.11 b/g/n WIFI 300Mbit/s | Embedded Webserver accessible over Factory LAN on handheld devices |
| Alarm Buzzer with LED | 85 to 96db(A) acoustic signal with a red LED | Customer configurable alerts Email alerts |
| Power Consumption | | |
| Maximum | 26,4W | Total cabinet using standard connections |
| Environmental | | |
| Temperature range | -10°C~+50 °C | Sensors can be installed in higher temperature process lines, check rating of ordered sensors |
| Humidity range | 10~95%@10°C (No condensation) | |
| IP | 54 | |
| Installation | | |
| Connectors | All on top | Leave 60mm space on top for connectors and cables Total Height of installation area recommended 500mm |
| Handles | Two (2) | For carrying cabinet |
| Wireless Antenna | Top | Protect against damage, sticks above handles |
| Wall mount | Two (2) | |
| Outside installation | Not recommended without proper protection | All connectors come with caps, however the unit is not built for direct install in outside areas where connectors are exposed to environmental element. Protect against ingress of water, dust, etc. |
| Software (options available to order) | | |
| RPS InkSight with ColorLock | 1-10 station | Monitoring and control using ColorLock functionality |
| RPM RheoPulse | 1-10 station | Monitoring only software |
| RPM SlurryTrak | 1-10 station | Monitoring only software |
| RPM PaintTrak | 1-10 station | Monitoring only software |
| RPS InSight with ProcessLock | 1-10 station | Process monitoring and control software |

Not an EX certified cabinet. Should be always installed in a SAFE zone.

Mechanical Dimensions

Front and Side View



Top View

