

Model PCNC-0089-00

#### Seyonic Pipetting Technology:

Seyonic's Sensor Controlled Pipetting technology allows very precise monitoring of the liquid handling process. It thus provides not only accurate volume control but also detects pipetting errors in real time. Therefore every pipetting operation can effectively be validated as it is going on. The Process Control Diagnostics allow detection of partial or complete air aspiration while calculating the actually aspirated sample volume. In case of tip clogging, operation is halted immediately to permit the best possibility for recovery. Process Control Diagnostics are based on analysis of changes in pipetting flow. It is therefore largerly independent of the volume or pipetting speed and does not need to establish guide band reference curves for every possible specific pipetting operation.



#### Features:

Wide Dynamic range: 2 µL to 10 mL

Independent volume control and mixing capability per channel

Reporting and validation for all actions on all channels

Independent Liquid Level Detection (LLD) on each channel

Tip Clogging Detection on all channels

Low tip insertion force

18 mm tip spacing

Integrated electromechanical tip ejection

### Applications:

General liquid handling Clinical diagnostics

#### **Product Summary:**

The Air-driven OEM 24-Channel Pipetting Head with integrated flow sensors is suited for liquid handling in microliter to milliliter volume range.

This product has been designed to fit a wide range of applications where action validation and process surveillance is required. The use of a dedicated MEMS flow sensor at the pipetting site allows complete validation of aspiration and dispense actions in real time, as well as providing clogging detection and other process monitoring information.

The SCP24 head operates with a pressure/vacuum source, typically in the range of  $\pm$  500 mbar gauge for aspiration/ dispense pressure. The pressure controller further acts as System Controller by providing a single port access from the host computer. Integrated high level coordination between the pressure source and the pipetting unit allows an efficient and rapid integration of the unit onto our customer's automated platforms.



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### Specifications:

Operating temperature 10 to 40 °C

Volume range[1] aspirate/dispense 2 µL to 10 mL

Precision and accuracy data [2] Precision  $2 \mu L < 6 \% CV$   $5 \mu L < 2 \% CV$  $> 20 \mu L < 1 \% CV$  Accuracy  $2 \mu L < \pm 10 \%$   $5 \mu L < \pm 4 \%$  $> 20 \mu L < \pm 1 \%$ 

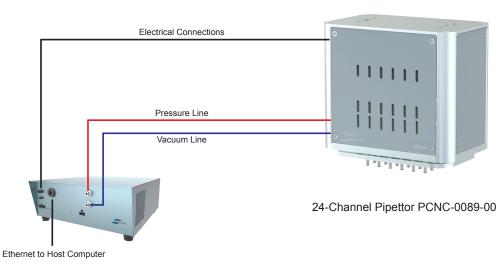
Typical Dispensing speed: 20 - 600 µL/s

Power requirements 24V DC / 5.5A Communication speed for data exchange up to 921'600 Bps

Weight 4.5 kg

Accessories Tip adapter design can be customized Dual Pressure/Vacuum Source PCNC-0071-00 see separate datasheet

[1] Max aspiration volume depends on internal tip volume. [2] Test protocol and conditions available upon request.



Dual Pressure Controller PCNC-0071-00

Product Code PCNC-0083-40

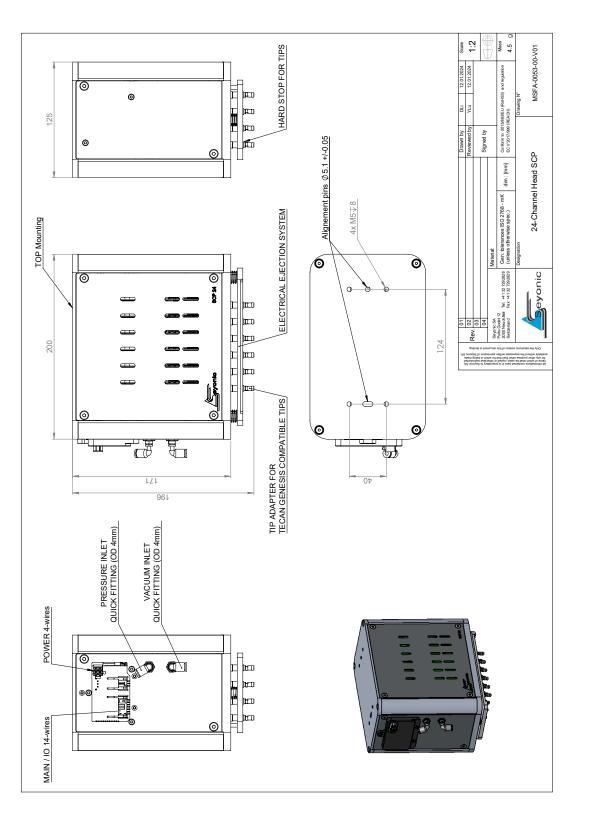
#### Description

Starter-kit: Pipetting head SCP24 with Pressure Vacuum Controller, tubing and cables

- User manual, protocol and command set description
- · Compiled stand-alone User Interface Software and Software API for User Application Development



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Mechanical Drawing Customized integration and solutions on request.



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