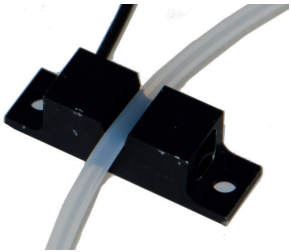
Science Together

KNAUER

AZURA

Air sensor
Supplement



Document no. V6879

HPLC

For your own safety, read the manual and always observe the warnings and safety information on the device and in the manual.

Technical Support:
Phone: +49 30 809727-111 (9-17h, Central European Time)
Fax: +49 30 8015010
E-Mail: support@knauer.net
Languages: German, English

Publisher:
KNAUER Wissenschaftliche Geräte GmbH
Hegauer Weg 38
D-14163 Berlin
Phone: +49 30 809727-0
Fax: +49 30 8015010
Internet: www.knauer.net
E-Mail: info@knauer.net

Printed in Germany on environmentally friendly paper from sustainable forests.

Version information:
Article number: V6879
Version number: 1.3

The information in this document is subject to change without prior notice.

For latest version of the manual, check our website:
http://www.knauer.net/en/Support/User-Manuals

Table of Contents

NOTE **For your own safety, read the manual and always observe the warnings and safety information on the device and in the supplement.**

NOTE **Technical data are subject to change without notice. Please check our website for latest updates and changes.**

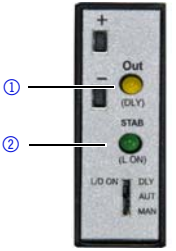
Intended Use

The airsensor displays the end of buffer or the end of sample by detecting air. It protects the column from damage caused by intruding air and supports the automatic sample injection. The airsensor can be used with different transparent 1/16", 1/8" or 1/4" tubings.

The delivery consists of the airsensor, an amplifier, and a gameport adapter. The gameport adapter can be connected to a computer.

The airsensor is controlled by KNAUER software *PurityChrom®* which supports up to 4 airsensors. Upon detecting air, you can program different actions. The purification can either be stopped or paused to prevent air from entering the system. Furthermore, after detecting the end of the sample, you program the software to automatically start or continue the run.

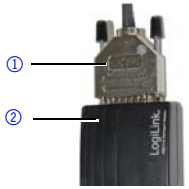
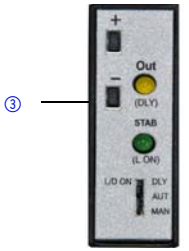
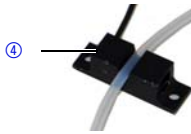
The LEDs of the amplifier indicate the status of the airsensor:

LED color	Figure
Yellow LED Out ① : ▪ Lights up in case air has been detected Green LED STAB ② : ▪ Lights up permanently to show that the signal is stable ▪ In case of flickering, calibration is recommended	

Installation

See below for a description on how to mount the airsensor onto the tubing and on how to connect it to a computer. You can attach the airsensor to the side panel of your AZURA L device with AZURA Click. Select a position for the air detection on the tubing, then start the installation.

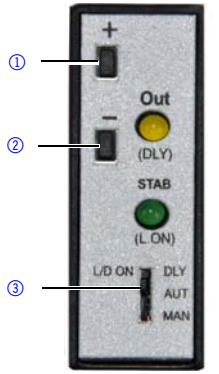
NOTE **The number of the airsensor corresponds to the number on the cable that is being used. If you have more than one airsensor, connect the other amplifiers to the free cables.**

Process	Figures
1. Connect the Sub-D15 plug ① with the gameport adapter ②. 2. Connect the gameport adapter per USB to your computer.	
3. Connect the amplifier ③ to one of the 4 numbered cables.	
4. Clamp the airsensor ③ onto the tubing at the selected position.	

Calibration

You must calibrate the airsensor before use or in case the signal is unstable. For that purpose, make sure that you can operate the amplifier.

NOTE **During calibration, the green LED STAB blinks rapidly. If calibrating has been successful, the same LED blinks slowly for approximately 3 s.**

Process	Figure
1. Move the switch ③ to DLY. 2. Press the button - ② . The STAB signal disappears. Both lights should be turned off. 3. Move the switch to AUT. 4. Press the button + ① where the tubing is filled with air. 5. Press the button - where the tubing is filled with liquid.	

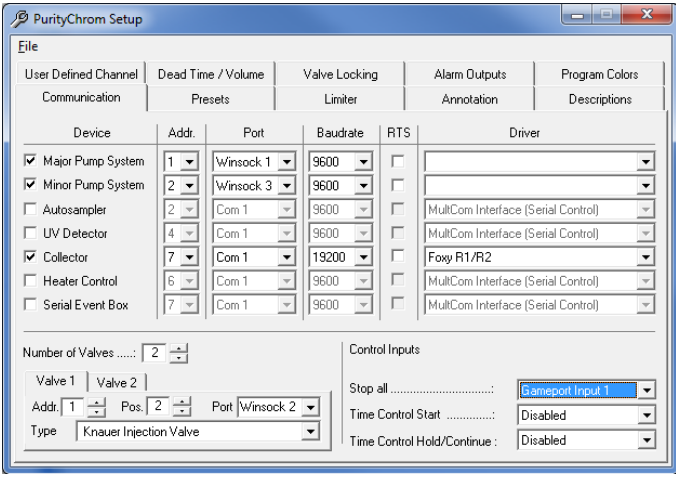
Integrating into PurityChrom®

You can program the software to either start or stop the system after an air bubble has been detected.

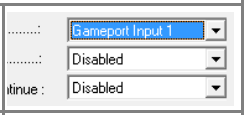
NOTE **You have to choose the Gameport Input 1, 2, 3, or 4 which equals the airsensor number.**

Process and figures

1. Open the PurityChrom® Setup.
2. Go to the register Communication.
3. In the section Control Inputs you can make the necessary changes.



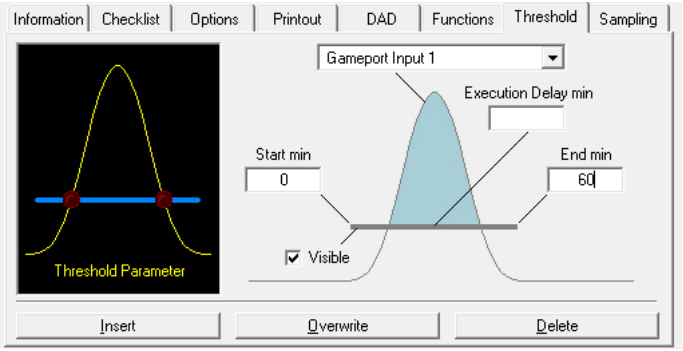
4. To stop the system, change the settings as follows in Fig.



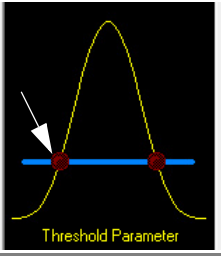
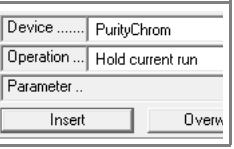
5. To start a run, change the settings as follows:

Holding the Run

To hold the run at air detection, you can program a threshold over your complete run in the register Thresholds of the Time Control Editor.

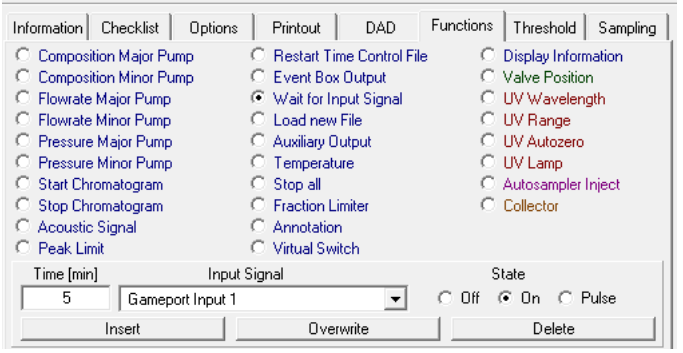


NOTE **You have to choose the Gameport Input 1, 2, 3, or 4 which equals the airsensor number.**

Process	Figures
1. To open the Time Control Editor, press the button  . 2. Go to the register Threshold. 3. Choose the Gameport Input 1 from the dropdown list. 4. Click on the start value of the threshold parameter in the picture (indicated by the arrow). The appearance of the register changes.	
5. Change the setting for Operation to Hold current run. 6. Click on the button Insert to confirm the changes.	

Continuing the Run

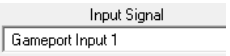
To continue the run after air has been detected, you can activate the setting in the register Functions of the Time Control Editor. Start writing your method as usual and activate the function Wait for Input Signal at a particular time during the method.



NOTE **Make sure that the functions succeeding the function Wait for Input Signal start with a delay of 0.01 s.**

NOTE **Do not activate the option Stop Pumps at Time Control Hold in the register Options. Otherwise the pump stops after the function Wait for Input Signal has been reached.**

NOTE **You have to choose the Gameport Input 1, 2, 3, or 4 which equals the airsensor number.**

Process	Figures
1. To open the Time Control Editor, press the button  .	
2. Go to the register Functions. 3. Activate the function Wait for Input Signal. 4. Choose the Gameport Input 1 from the dropdown list.	
5. Activate On in the section State. 6. Click on the button insert to confirm the changes. 7. After reaching the function Wait for Input Signal, the run pauses until the end of sample. After the signal, the run continues automatically.	

Repeat Orders

Name	Order number
Airsensor for 1/16" tubing	**A70092**
Additional airsensor without wiring for 1/16" tubing	**A70092-1**
Airsensor for 1/8" tubing	**A70093**
Additional airsensor without wiring for 1/8" tubing	**A70093-1**
Airsensor for 1/4" tubing	**A70083**
Additional airsensor without wiring for 1/4" tubing	**A70083-1**
AZURA Click	**A70096**
Distribution box 24 V	**AZS80SA**

Science Together

KNAUER

Latest KNAUER instructions online:
https://www.knauer.net/en/Support/User-manuals

KNAUER
Wissenschaftliche Geräte GmbH
Hegauer Weg 38
14163 Berlin

Phone: +49 30 809727-0
Fax: +49 30 8015010
E-Mail: info@knauer.net
Internet: www.knauer.net