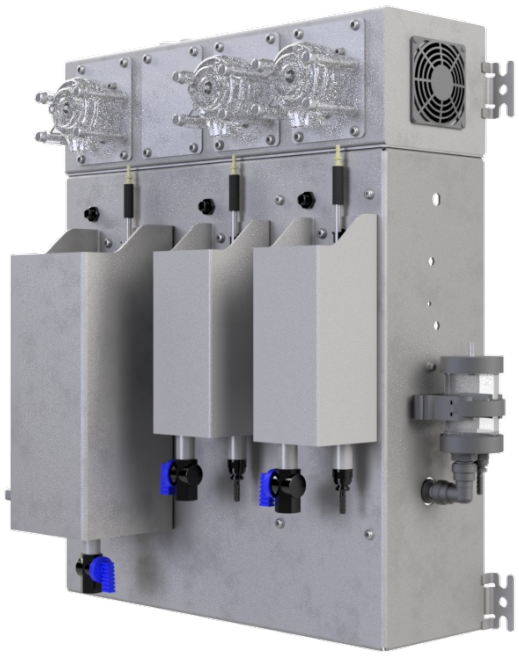
External Dilutor ED4

DESCRIPTION

ED4 is a complete dilution system with a dedicated reservoir for dilution water and up to two reservoirs for the samples.
Each sample gets drawn from its reservoir by a dedicated peristaltic pump and mixed with the required amount of dilution water. A post dilution chamber guarantees reliable dilutions and fast response times.
The dilution ratio can be calculated from the corresponding motor speed and pump size. Since various configuations are possible, 3S can configure ED4 to dilute 2, 3, 5, 10, 20, 40X the original concentraion.
The ED4 dilutor is available in both 110 and 230 VAC versions.



FEATURES

• Efficient

Level sensors installed on the reservoirs puts the analyzer in standby in case of missing sample. Specifically for the dilution water reservoir, an automatic switching system stops the flow of dilution water into the reservoir when it's full. Therefore only the necessary amount of dilution water is used per analysis cycle.

• Dual sample and dual range configurations

The Dual Stream option allows for up to two sample streams to be diluted before analysis.
The Dual Range option is used when process conditions vary. This option allows for an automatic dilution of the sample when an upper concentration threshold is met.

• Reliable and sturdy

The stainless steel construction of the dilutor body and reservoirs guarantees resistance to corrosion even in the most harsh industrial conditions.

• Easy maintenance

All serviceable parts are on the front of the dilutor. Apart from the pump tubing replacement, no other maintenance is required.

APPLICATIONS

Compatible with 3S Colorimeter, UV and TOCmeter analyzers.
Sample dilution is necessary in applications where the required measuring range exceeds the maximum range of the analyzer.

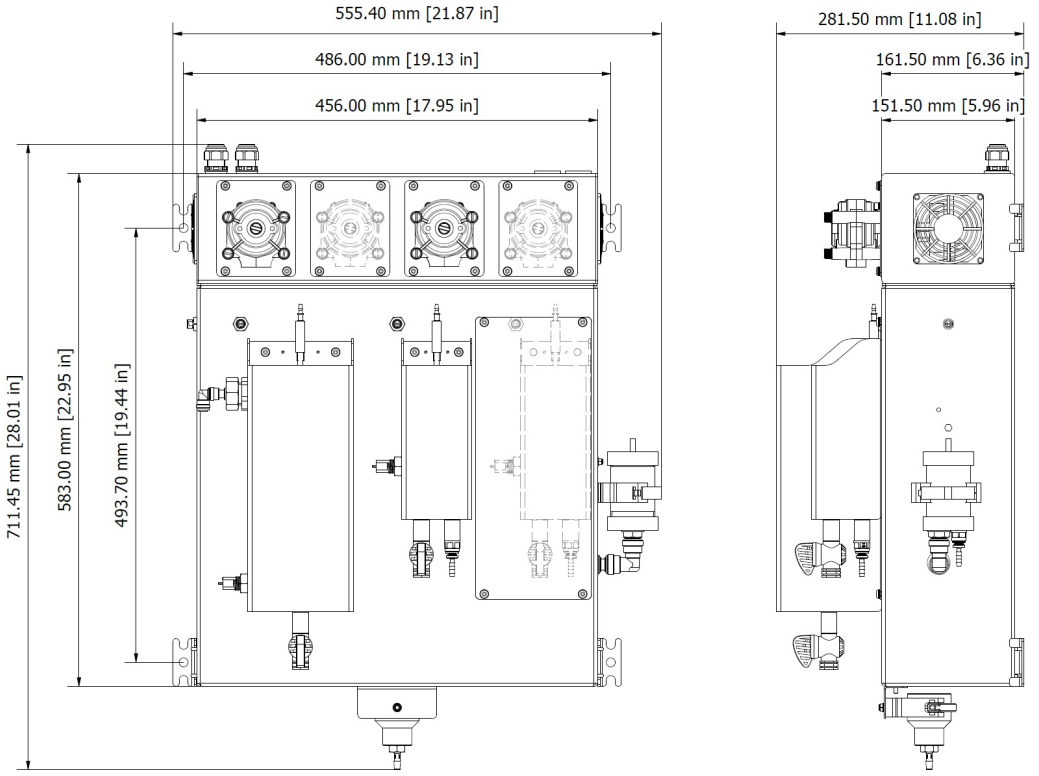
DILUTION RATIO

DILUTION MOTOR RPM	DILUTION PUMP SIZE	SAMPLE MOTOR RPM	SAMPLE MOTOR SIZE	DILUTION RATIO
10	16	10	16	X2
10	15	10	16	X3
20	16	5	16	X5
20	16	2	16	X10
20	15	2	16	X20
20	24	2	16	X40

TECHNICAL SPECIFICATIONS

Power Supply	Customer must specify 110 VAC, 220 VAC
Dimensions (H x W x D)	583 x 555 x 282 (23.0 x 21.9 x 11.1 in)
Weight	20 kg (44 lbs)
Material	Epoxy-coated stainless steel
Operating Temperature	+5 ° C / +40 ° C (+41 ° F / +104 ° F)
Operating Sample Pressure	Atmospheric (dedicated overflow reservoirs)
Input Sample/Water Flow	100 - 500 mL/min
Output Sample Flow	20 - 60 mL/min
Max Samples	2
Dilution Ratios	2x, 3x, 5x, 10x, 20x, 40x

DIMENSIONAL DRAWINGS



ORDERING INFORMATIONS

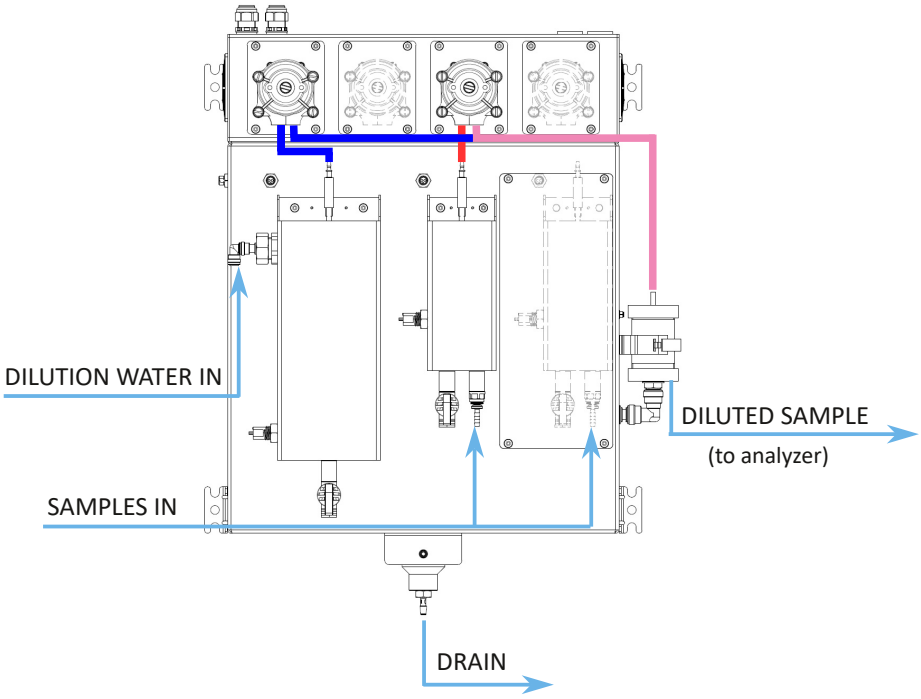
ED4 - External Dilutor

Please ask for the required diluition ratio and samples configuration.

Spare Parts

- A4621120PC - Polycarbonate cilinder for PDM reservoir / copper filter
- A46ED2YOK - Annual set of norprene tubings for peristaltic pumps – for 3 replacements. Serial number of the dilutor to be specified
- A46ED4EB00 - Electronic board for multiple dilutors (3 or 4 motors)
- A46ED4V000 - Ventilator for external dilutor assembled into mounting frame

HYDRAULIC CONNECTION



NOTE

The second sample pump and reservoir are present only when the dilutor is in Dual Stream configuration.

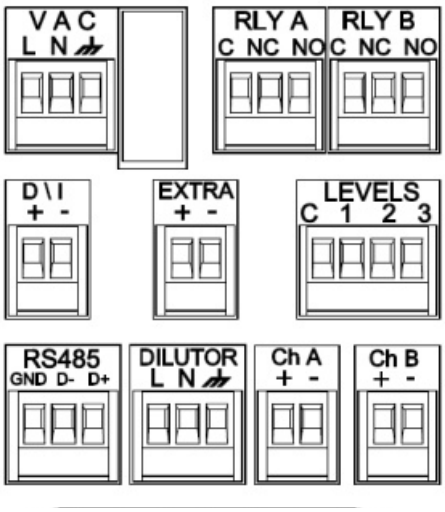
The second pump for dilution water is present in Dual Stream dilutors when the channels have different dilution ratios.

The dark blue line shows the path of the dilution water, the red one shows the path of the undiluted sample.

The violet path is the diluted sample.

The installator must provide connections where indicated by the light blue arrows.

ELECTRICAL CONNECTION TO TOC ANALYZER



To connect ED4 to the TOC Analyzer, turn off the analyzer and open the right compartment. Remove the protective covering to access the user contacts. Insert all cables through the glands on top of the analyzer.

All cable labels will match with their respective connections. Please note that the connection EXTRA is only used for Dual Sample or Dual Range.

Connections (highlighted to the left):

1. DILUTOR wires to DILUTOR contacts (for Power Input)
2. LEVELS wires to LEVELS contacts (for Level Switches)
3. EXTRA wires to EXTRA contacts (for Signal Cables or Extra Relay, only present in dual stream dilutors)

Follow the TOCmeter user manual for the instructions to configure your analyzer with dilution.

ELECTRICAL CONNECTION TO COLORIMETRIC AND UV ANALYZERS

In case of the connection to a colorimetric analyzer the dilutor will be shipped with a separate power cord already fitted with the correct plug for your country. Therefore the dilutor needs a separate power socket. Level sensor and signal cable must be brought inside of the analyzer via the cable glands on the right side of the instrument.

The level sensors cable must be connected to the level contacts on the main board of the instrument.

The signal cable must be connected to the user terminals on the front panel of the instrument (inside the electronics compartment) to the Relay A or Relay B.

Please, read the Colorimetric Analyzer user manual for the instructions to configure the instrument for the external dilution.