



Dosing unit EMIDoS

One conditioning step in extractive analysis of process and emissions gases is reliable, constant reduction of humidity in the sample gas. The condensate this produces results in sometimes considerable washout effect. This can result in inaccurate measurements, particularly in acidic gas components (e.g. SO₂). Adding acidic liquids at an appropriate point in the conditioning system reduces the acid solubility by manipulating the pH level in the condensate, ensuring reliable measurements. The EMIDoS dosing unit was designed for this specific application.

It consists of a wall mount made from non-corrosive stainless steel. This holds the reservoir for the dosing agent and the dosing pump with adequate capacity. The tubing has minimal cross-sections to ensure rapid response times. An adjustable sensor for monitoring the residual level is located on the side. The suction port is located inside the container cover.

Compact design

Dosing pump with consistent flow rate

Dosing connection for heat exchanger included

Reduces SO₂ washout (complies with EN 15267)

Short feed time, fast response time

Adjustable level monitor

Optional: Collection pan for safe acid storage



Overview

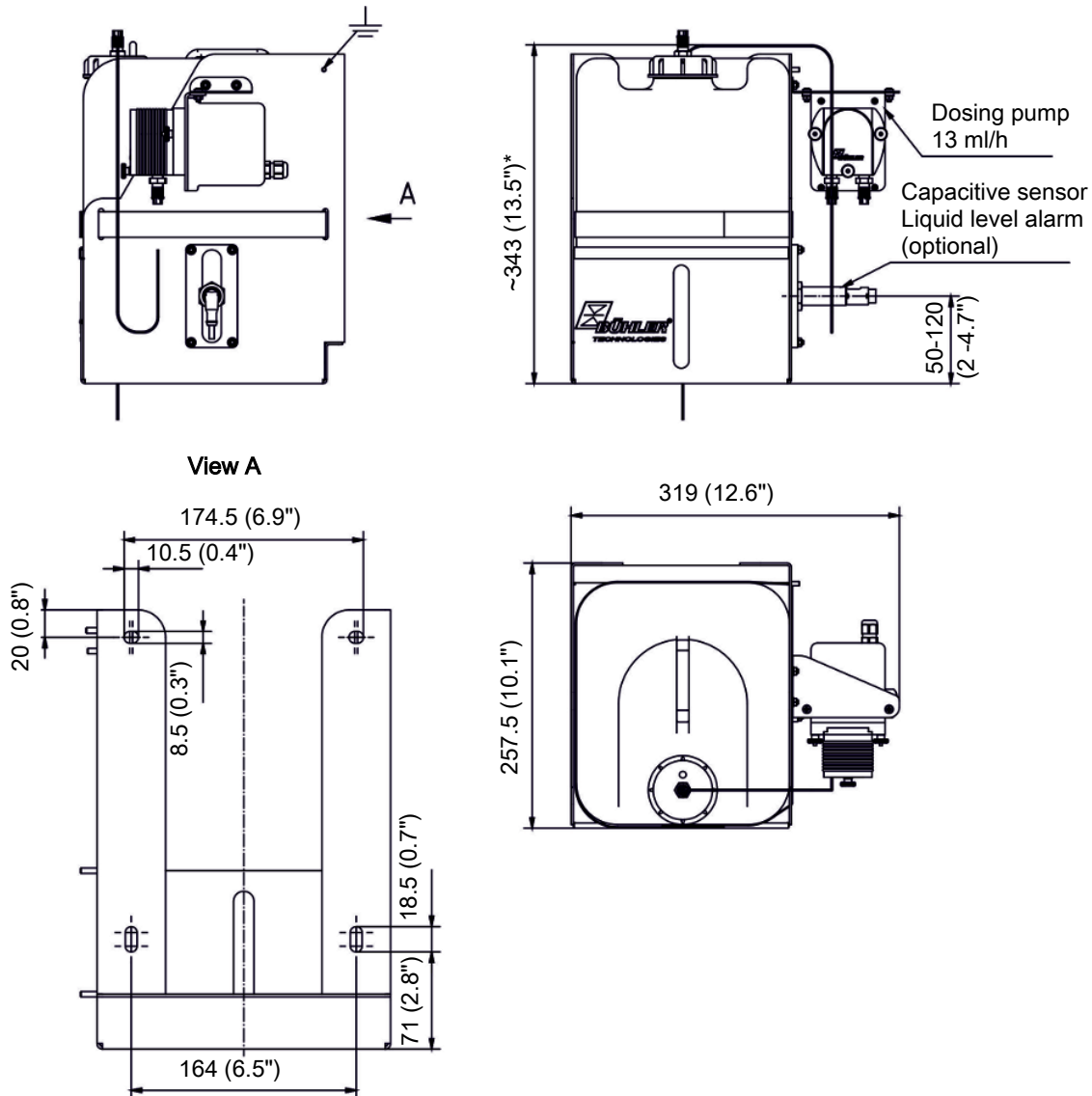
Dosing unit assemblies:

- Stainless steel wall mount
- Dosing pump with pump bracket
- Capacitive sensor for level monitoring
- Acid container with modified cover
- Dosing line kit

The dosing unit can optionally be equipped with the following components:

- Collection pan

Dimensions



*Dimensions apply to top edge of connection. Hose not included.

Detailed description of functions

For EN 15267 compliant systems, the pH level in the condensate is reduced with phosphoric acid to reduce SO₂ washout. At 13 ml/h, the flow rate of the dosing pump is optimised for 10 % acid. Dosing is continuous. With the connection kit, the 1.6 mm dosing line can be connected directly to the standard connection (DN 4/6) of the heat exchanger. The adapter system allows convenient installation of the dosing lines and is detailed in the included operating instructions.

An adjustable position capacitive sensor is optional and can be installed at the side of the metal bracket. If the acid is below the minimum level, a warning is output to be able to reorder acid early.

Technical Data

Meter Technical Data

Operational readiness:	Ready for use immediately after switching on
Ambient temperature:	41 °F to 122 °F
IP rating:	IP20
Bracket:	Stainless steel, brushed
Weight without acid:	approx. 11 lbs
Acid canister volume:	12.6 gal
Outlet pressure:	15 psi
Capacitive sensor operating voltage:	10...36 V DC
Metering pump operating voltage:	115/230 V AC
Flow rate:	approx. 13 ml/h
Acid feed time:	5 min/m
Sensor electrical connections:	M12x1.5-pin (option)
Parts in contact with media	
Acid container:	HDPE
Dosing line:	PFA
Modified cover:	HDPE/PVDF

Ordering Instructions

The item number is a code for the configuration of your unit. Please use the following model key:

45003	1	1	X	0	0	Product Characteristics
						Voltage
	1					115 - 230 VAC
						Dosing pump
		1				CPsingle 13 ml/h
						Liquid level monitoring
			0	0	0	without liquid level sensor
			1	0	0	with liquid level sensor

Spare Parts and Accessories

Item no.	Description
9144050018	M12 plug incl. 5 m (16.4 ft) cable
45003017	Capacitive sensor (connection kit)
45003014	Modified cover
45003008	Collection pan
4382006	Laboratory screw connection GL 14 DN 1.6
45003011	Connection kit for heat exchanger with DN 4/6 input
45003011I	Connection kit for heat exchanger with 1/4"-1/6" input