



EC-F (above) , EC-FD with 3 x SR25.2 (below)

## Universal Unit Series EC®

Versions EC-F, EC-FD, EC-D and EC-D/Ex

### Special Features

- Cooler ventilation unit EC-F for forced ventilation at higher ambient temperatures
- Cooler ventilation and condensate drain unit EC-FD for forced ventilation and automatic condensate drainage
- Cooler ventilation units EC-FD and EC-F are equipped with air recirculation filter mat
- EC-D and EC-D/Ex are condensate drain units only
- EC-D and EC-FD are equipped with one SR25.2 peristaltic pump
- EC-D/Ex is equipped with one SR25.1/Ex peristaltic pump
- Compact design
- Minimum maintenance

### Application

The M&C gas coolers ECS and ECEX are used in gas analysis to lower the dew point of humid gas in order to prevent condensation in the analyzer.

In the case of increased ambient temperatures or analyzer systems in protective cabinets with insufficient ventilation, it may often be necessary to combine the ECS compressor cooler with the EC-F or EC-FD base unit for forced ventilation.

The EC-FD and EC-D universal base units with automatic condensate drainage can be used with the ECS compressor cooler if the peristaltic pumps cannot be mounted directly in the ECS front panel.

For additional automatic condensate drainage for the ECEX cooler, the universal base unit EC-D/Ex can be used.

### Description

The M&C EC-F cooler ventilation unit has two fans and a replaceable recirculating air filter mat, which is easily accessible in a drawer.

The EC-FD cooler ventilation and condensate drain unit is also equipped with two fans and a recirculating air filter mat, plus an SR25.2 peristaltic pump for automatic condensate drainage.

The EC-D condensate drain unit includes an SR25.2 peristaltic pump for automatic condensate drainage.

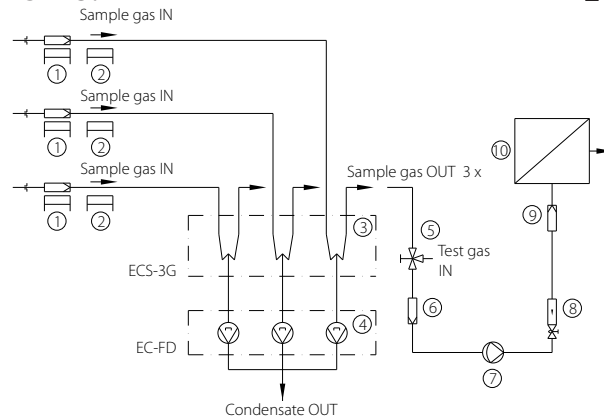
The EC-D/Ex universal base unit is equipped with an SR25.1/Ex peristaltic pump.

In total, up to four peristaltic pumps can be inserted into the housings of the EC-D and EC-D/Ex for condensate drainage.

## Example application for ECS-3G and EC-FD with 3 x SR25.2

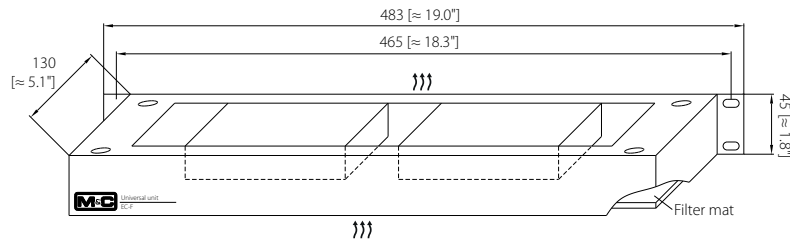


- 1 Heated gas sample probe SP2000-H
- 2 Heated sample line 4M4/6
- 3 Gas cooler ECS-3G (ECS incl. 3 x heat exchangers)
- 4 Universal base unit EC-FD with 3 x peristaltic pumps SR25.2
- 5 3-way ball valve 3L/PV-1
- 6 Fine filter FP-2T-D with liquid alarm LA1S
- 7 Sample gas pump
- 8 Flow meter FM 10
- 9 Aerosol filter CLF-5/W optional according to application
- 10 Analyzer.

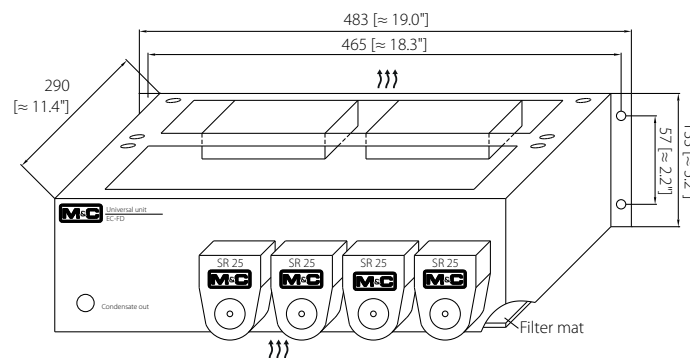


## Dimensions

### Universal base unit EC-F



### Universal base unit EC-FD with 4 x SR25.2



Dimensions in mm [Inches]  
 Air flow direction

## Technical Data

Universal Unit EC	Version EC-F	Version EC-FD	Version EC-D	Version EC-D/Ex
Part No.	02K9530(a)*	02K9540(a)*	02K9535(a)*	02K9550(a)*
Fan/air recirculation filter mat	2 x fans/1 x air recirculation filter mat		No/No	No/No
Peristaltic pumps	No	1 x SR25.2 included; max. 4 pcs.		1 x SR25.1/Ex included; max. 4 pcs
Condensate connection	No	1 x tube connection DN 4/6		
Sample gas pressure	See cooler/liquid drainer spec.	Max. 2.2 bar abs.		
Ambient temperature	+5 to +50 °C [41 to 122 °F]			
Ready for working	Immediately			
Main power connection	230 V/50 Hz or Part No. with (a)* = 115 V/60 Hz			
Power consumption	35 VA	40 VA	5 VA	5 VA
Electrical connection	Terminals 2.5 mm <sup>2</sup> ; internally wired to the ECS cooler			Separate mains supply, cable gland: M20, terminal 2.5 mm <sup>2</sup>
Case protection	IP20 EN 60529			IP40 EN 60529
Electrical standard	EN 61010			EN 60079-0, EN 60079-7, EN 60079-18
ATEX marking	No			II 2 G II T5
Method of mounting	Attached to the bottom of the cooler (substructure)			
Case color	RAL 9003			
Dimensions	483 x 45 x 130 mm [≈ 19" x 1.8" x 5.1"]	483 x 133 x 290 mm [≈ 19" x 5.2" x 11.4"]		
Weight approximately	2.1 kg [≈ 4.6 lbs]	5.8 kg [≈ 12.8 lbs]	5.2 kg [≈ 11.5 lbs]	5.6 [≈ 12.3 lbs]
<b>Option:</b>				
Part numbers for one additionally factory installed pump	No	1 x 01P1300 (SR25.2) + 1 x 01P9100 (factory installation)		1 x 01P1201 (SR25.1/Ex)+ 1 x 01P9100 (factory installation)

\* (a) is an addition to the Part No. for 115 V versions.