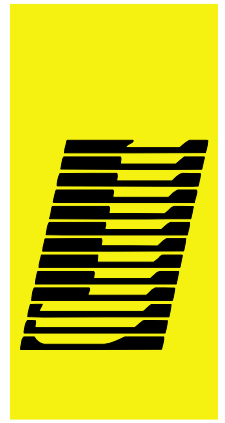
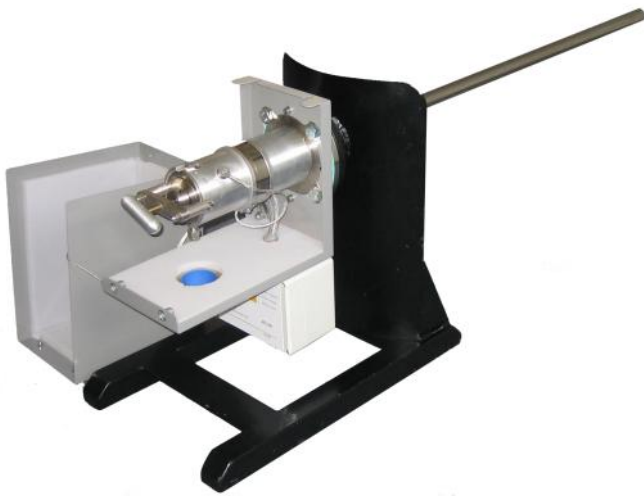


- Sampling Conditioning Systems
- Process Analytics
- System Integration
- Gas Generators
- FTIR-Analysers



conditioning systems

Gas Sampling Probe JES 301



FEATURES

- ◆ Rugged Construction
- ◆ Easy filter replacement
- ◆ Low maintenance
- ◆ Weather protection housing
- ◆ Calibration gas inlet
- ◆ Microprocessor based temperature controller
- ◆ Temperature alarm
- ◆ Modular
- ◆ Status and alarm display at front side

APPLICATION

The JES 301 series of heated gas sampling probe is designed for continuous use with extractive sampling systems even where the sample contains dust and aerosols. Water vapour and high dew-point corrosive gases must be kept above the dew-point to prevent corrosion and sample degradation prior to hot analysis or sample conditioning. The JES 301 is available in several versions which may be custom configured to meet user's specific requirements. The JES 301 incorporates a non-corrosive heated, replaceable ceramic filter element with a filter porosity of 2 micron. The filter element is electrically heated and mounted in a thermally isolated weather protection housing. The temperature regulation is done by a maintenance free, fully electronic temperature controller with under temperature alarm. The heated line series JH can be easily connected to the JES 301 by a movable PG42 fastening screw.

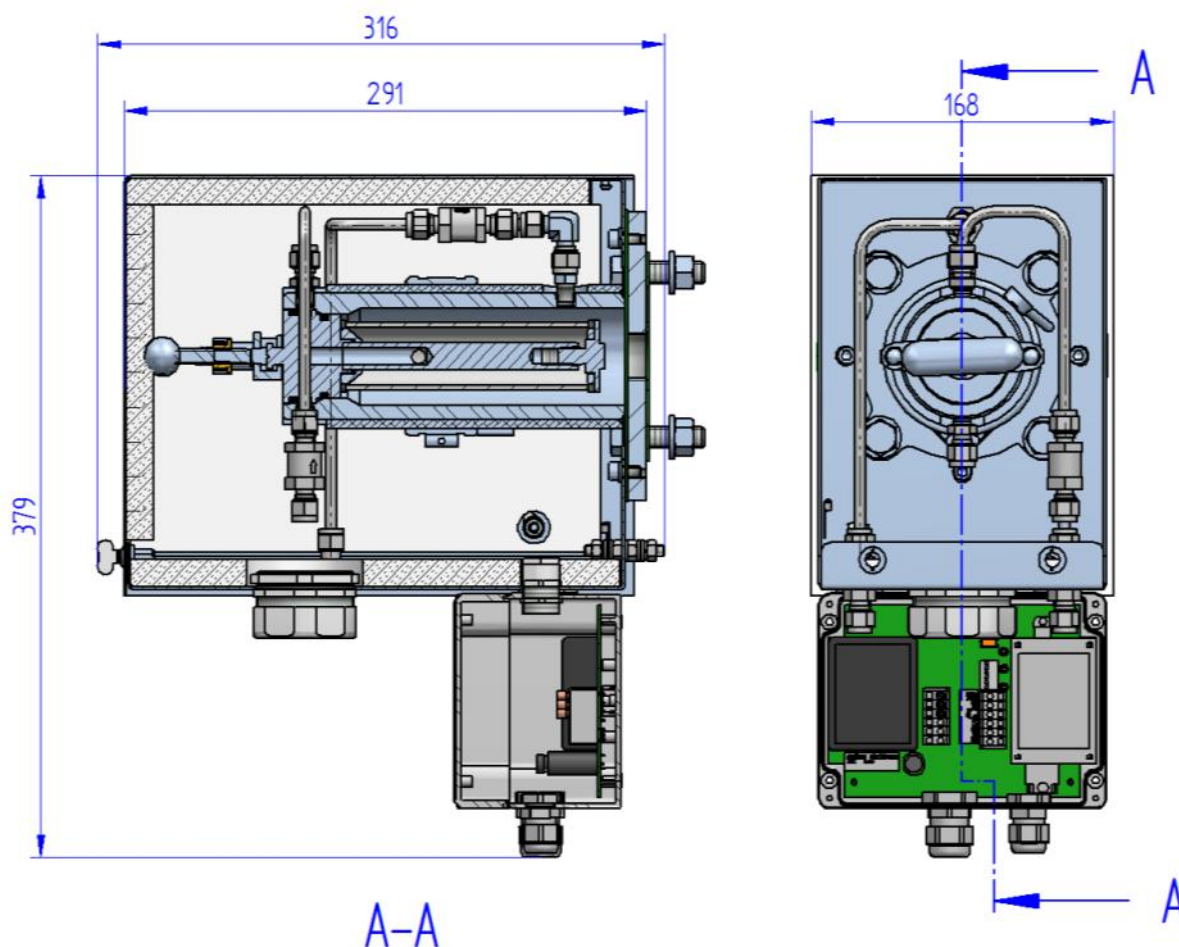
TECHNOLOGY

The complete unit, consisting of the heated filter head, temperature controller, mounting flange and probe assembly, can be mounted anywhere horizontally or vertically. The probe can be connected with a standard DN65 PN6, Form B flange directly. The flange material is stainless steel. When mounted horizontally, the JES 301 should be inclined at an angle of 5° to 15° to allow any condensate formed to drain away from the filter head. A broad range of different materials for In-Situ probe tubes, electrically heated In-Situ probe tubes and large In-Situ - pre filters make the JES 301 versatile in application.

FEATURES

A temperature alarm contact signalizes fault and under temperature, an over temperature protection avoids overheating. The filters can be replaced easily without any tools and without disconnecting the heated sample line.

TECHNICAL DATA



SPECIFICATIONS	
Filter element Option	SiC; pore size 2µm; 40/20x135 mm surface coated 0,2µm
Operating pressure Option	max. 200 kPa abs. max. 700 kPa abs.
Flow rate	up to 600NI/h
Mounting flange Option	DN 65, PN6; DIN 2573; SS316 2" ANSI-flange, 150lb.
Mounting angle	recommended 5°-15° incline to allow condensate drainage
Sample gas inlet	G3/4" female thread
Sample gas outlet	1/8" NPT female thread
Test gas port	6mm SS316 bulkhead union
Backpurge port	6mm SS316 bulkhead union
Gas wetted parts	1.4571, SiC, Viton® (FKM)
Temperature adjustment range Option	5 ... 200°C 5 ... 315°C
Factory setting	180°C

SPECIFICATIONS	
Permissible ambient temperature	-20°C ... +60°C
Power consumption	Approx. 505 Watt
Heater element	Approx. 500 Watt
Temperature sensor	PT100
Power supply Option	230VAC / 50Hz or 115VAC / 60Hz
Junction box	120 x 160 x 90 mm (WxHxD)
Electrical connection	Clamps max. 2,5 mm ²
Switching alarm relay	Typ. 230VAC/2A/min. 5VADC/5mA
Protection class	electronic IP65, probe IP43
Housing	Sheet steel powder coated
Weight	Approx. 11 kg
Dimensions	160 x 350 x 290 mm (WxHxD)

ORDER CODE

Gas sampling probes

	Filter				Options / Equipment					Flange		Voltage	
	heated	unheated	2µm SiC	0,2µm surface coated	Backpurge Port *1	Calibration Pot *1	Temperature Controller	self-limited	Weather protection	DN65/PN6	2" ANSI	230VAC 50/60Hz	115VAC 50/60Hz
35.00005 JES301W		X	X							X		X	
35.00016 JES300SH	X		X				X			X			
35.00025 JES301WZ		X	X								X	X	
35.00208 JES301H	X		X						X	X		X	
35.00210 JES301			X				X		X	X		X	
35.00212 JES301B				X	X		X		X	X		X	
35.00213 JES301BZ				X	X		X		X		X	X	
35.00214 JES301C			X			X	X		X	X		X	
35.00215 JES301DHFTIR				X		X*2			X	X		X	
35.00217 JES301BC				X	X	X			X	X		X	
35.00221 JES301Z			X				X		X		X	X	
35.00308 JES301HX			X						X	X			X
35.00310 JES301X			X				X		X	X			X
35.00312 JES301BX				X	X		X		X	X			X
35.00313 JES301BZX				X	X		X		X		X		X
35.00314 JES301CX			X			X	X		X	X			X
35.00315 JES301DHFTIRX				X		X*2			X	X			X
35.00317 JES301BCX				X	X	X	X		X	X			X
35.00321 JES301ZX			X				X		X		X		X

Option 1: unheated sampling pipe

Sampling pipe Max. 600°C	Material	Length
35.00060 ER-S10	SS316Ti (1.4571)	1000 mm
35.00061 ER-S15	SS316Ti (1.4571)	1500 mm
35.00062 ER-S20	SS316Ti (1.4571)	2000 mm
35.00063 ER-S25	SS316Ti (1.4571)	2500 mm
35.00065 ER-S30	SS316Ti (1.4571)	3000 mm

Sampling pipe Max. 1200°C	Material	Length
35.00050 ER-K10	Kanthal	1000 mm
35.00051 ER-K15	Kanthal	1500 mm
35.00052 ER-K20	Kanthal	2000 mm

Sampling pipe Max. 140°C	Material	Length
35.00080 ER-T10	Teflon® (PTFE)	1000 mm
35.00081 ER-T15	Teflon® (PTFE)	1500 mm
35.00082 ER-T05	Teflon® (PTFE)	500 mm

Sampling pipe Max. 1100°C	Material	Length
35.00070 ER-H10	SS314 (1.4841)	1000 mm
35.00071 ER-H15	SS314 (1.4841)	1500 mm

Option 2: heated sampling pipe

Heated sampling pipe Max. 200°C	Material	Length
35.07050 ER-EH05	SS316 (1.4401)	500 mm
35.07070 ER-EH07	SS316 (1.4401)	700 mm
35.07100 ER-EH10	SS316 (1.4401)	1000 mm
35.07150 ER-EH15	SS316 (1.4401)	1500 mm
35.07200 ER-EH20	SS316 (1.4401)	2000 mm
35.07250 ER-EH25	SS316 (1.4401)	2500 mm

Accessories heated sampling pipe

35.07501 HTI-16	Temperature controller, 230VAC
35.07502 3/4 Thread	3/4" thread for additional pipe

Accessories for backpurge version

35.00012 JES301K	Backpurge controller 230VAC
35.00013 JES301KX	Backpurge controller 115VAC

*1 ...with non return valve

*2 ...heated calibration port

bold...Standard configuration

ORDER CODE

Option 3: In-Situ pre filter

In-Situ pre filter, pore size 3 µm, SS 1.4404, Max. 550°C, diameter 50 mm		
35.00703	HD-03	Length 300 mm, up to 10 g/m³
35.00705	HD-05	Length 500 mm, up to 20 g/m ³
35.00710	HD-10	Length 1000 mm, up to 15 g/m ³
In-Situ pre filter with V-deflector, pore size 3 µm, SS 1.4404, Max. 550°C, diameter 50 mm		
35.00803	HD-03V	Length 300 mm, up to 10 g/m³
35.00805	HD-05V	Length 500 mm, up to 20 g/m ³
35.00810	HD-10V	Length 1000 mm, up to 15 g/m ³

Extension tube For In-Situ pre filter		Material	Length
35.00910	HD-ET10	SS316 (1.4401)	1000 mm
35.00920	HD-ET20	SS316 (1.4401)	2000 mm
35.00925	HD-ET25	SS316 (1.4401)	2500 mm
Extension tube For In-Situ pre filter		Material	Length
35.00926	HD-ETK25	Kanthal	2500 mm
Gasket for extension tube			
35.00950	HD-ETGK	3/4", 27x38,2, SIL C 4400	

Consumable parts and flange adaptors

Consumable parts	
35.90010	O-Ring A, 200°C, Viton® (FKM)
35.90011	O-Ring B, 200°C, Viton® (FKM)
35.90012	O-Ring A, 315°C, Kalrez® (FFKM)
35.90013	O-Ring B, 315°C, Kalrez® (FFKM)

Flange adapter	Material	Dimensions
35.08010	SS304 (1.4301)	DN65/PN6 to 2 1/2"
35.08030	SS304 (1.4301)	DN65/PN6 to DN80/PN6
35.08020	SS304 (1.4301)	DN65/PN6 to 3"
35.08040	SS316Ti (1.4571)	DN65/PN6 to DN100/PN25
35.01401	Thermal spacer	

Spare parts

Spare parts	
35.90014	Filter element SiC F10, 2 µ, 40/20 x 135mm
35.90015	Gasket for filter element, 200°C, Viton® (FKM)
35.90016	Gasket for filter element, 315°C, Kalrez® (FFKM)
35.90100	Spare part kit, consisting of 1 x O-Ring A and B, 1 x filter element SiC F10, 2 x gaskets Viton®
35.90101	Spare part kit, consisting of 1 x O-Ring A and B, 1 x surface coated filter element, 2 x gaskets Viton®
35.90018	Surface coated filter element, 40/20x135mm
35.90050	Heater element; 230VAC, 50/60 Hz, 500 W
35.90052	Heater element; 115VAC, 50/60 Hz, 500 W
35.90080	Male connector SS316, for 6 mm tube
35.90081	Male connector SS316, for 8 mm tube

Spare parts	
35.90082	Blind plug, SS316
35.90083	Male connector, SS316, for 1/4" tube
35.90084	Male connector, SS316, for 3/8" tube
35.90085	Elbow connector, SS316, for 6 mm tube
35.90086	Male connector, SS316, for 6 mm tube
35.90087	Adapter for G3/8" connector SS316, for 10 mm tube
35.90088	Gasket SS/FKM for G 3/8"
35.90230	PCB temperature controller with housing, 230VAC/115VAC
35.90260	Temperature sensor PT100 for PCB of JES 301
35.94000	Conversion upgrade kit for JES 300 consisting of temperature sensor PT100 and PCB 230VAC/115VAC
35.90070	T-handle assembly kit
35.90071	Extractor kit complete
K3522001	Non return valve

bold...Standard configuration

Specification subject to change without notice.

PDS_E_JES301_v1.3

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