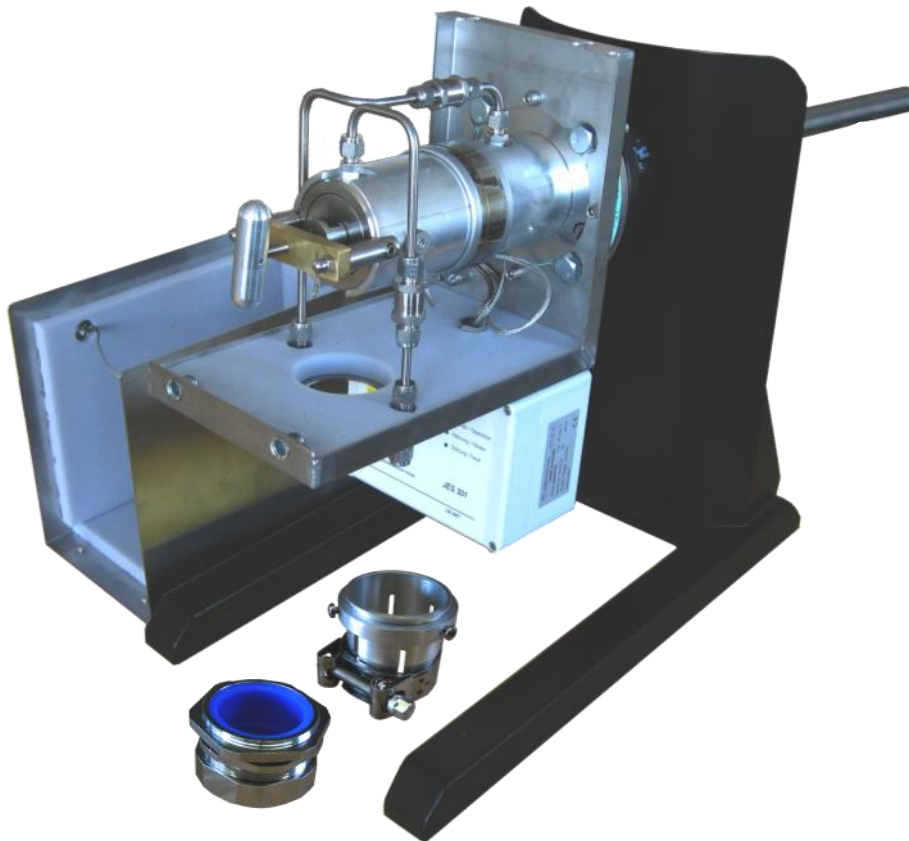


## JES 301 Gas Sample Probe



**JCT**  
Analysentechnik  
GmbH

### Sample Probes

Heated Hoses

Conditioners

NOx converter

Accessories

### APPLICATION

- For continuous gas sampling in processes with dust content and humidity
- Removing aerosols and dust from sample
- Extractive gas analysis
- Emission monitoring and process monitoring
- For outdoor and indoor use

### BENEFITS

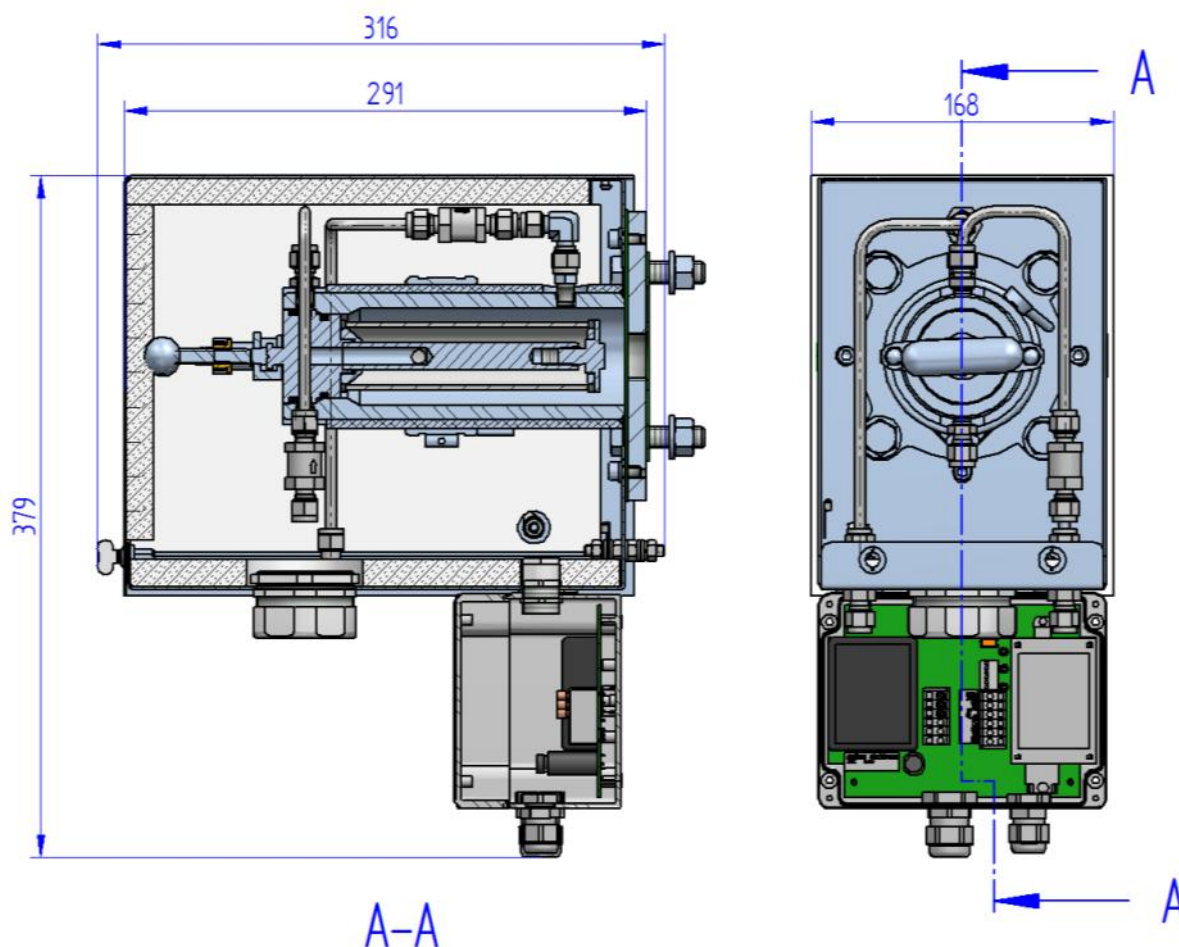
- Convenient filter replacement
- Rapid availability
- Low maintenance operation

### FEATURES

- Filter replacement without tools
- Filtration from outside to inside
- Calibration gas port (option)
- Backpurge port (option)
- Heated sample hose is connected directly to heated sampling probe
- Weather protection housing
- For high dust concentrations
- Temperature status contact
- Temperature controller
- Wide range of accessories



## TECHNICAL DATA



SPECIFICATIONS	
Filter element	Bonded silicon carbide; pore size 2µm; 40/20x135 mm surface coated 0,2µm
Option	
Operating pressure	max. 200 kPa abs.
Option	max. 700 kPa abs.
Mounting flange	DN 65, PN6; DIN 2573; SS316Ti
Option	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 (option)	6mm bulkhead union, SS316
Backpurge port (option)	6mm bulkhead union, SS316
Gas wetted parts	1.4571, SiC, Viton® (FKM)
Temperature adjustment range	5 ... 200°C
Option	5 ... 315°C
Factory setting	180°C
Temperature alarm limits	-20°K fix / +20°K fix
Ready for operation	after approx. 30min

SPECIFICATIONS	
Ambient temperature for continuous operation	-20°C ... +60°C -30°C ... +60°C
Power consumption	Approx. 505 VA
Heater element	Approx. 500 Watt
Temperature sensor	PT100
Power supply	230VAC / 50Hz or
Option	115VAC / 60Hz
Junction box	120 x 160 x 90 mm (WxHxD)
Connection terminal	Springtype terminal clamping range 0,08...2,5 mm <sup>2</sup>
Contact rating status contact (volt free)	Typ. 230VAC/2A/min. 5VADC/5mA
Protection class	electronic IP65, probe IP43
Weather protection housing	SS304, thermally isolated
Weight	Approx. 12,5 kg
Approval/Sign	CE

## ORDER CODE

### GAS SAMPLING PROBES

Art.Nr.	Modell	Filter		Options / Equipment				Flange		Voltage	
		2µm SiC	0,2µm surface coated	Backpurge Port *1	Calibration Port *1	Temperature Controller	Weather protection	DN65/PN6	2" ANSI	230VAC 50/60Hz	115VAC 50/60Hz
35.00208	JES301H	X					X	X		X	
<b>35.00210</b>	<b>JES301</b>	<b>X</b>				<b>X</b>	<b>X</b>	<b>X</b>		<b>X</b>	
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	
35.00217	JES301BC		X	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
35.00317	JES301BCX		X	X	X	X	X	X			X
35.00321	JES301ZX	X				X	X		X		X

Scope of delivery: device, mounting material, gasket for flange, gasket for sampling pipe, operating

OPTION 1: UNHEATED SAMPLING PIPE, Ø 26,9 mm OD		
Part No.	Description	Length
Sampling pipe SS316Ti max. 600°C		
<b>35.00060</b>	<b>ER-S10</b>	<b>1000 mm</b>
35.00061	ER-S15	1500 mm
35.00062	ER-S20	2000 mm
35.00063	ER-S25	2500 mm
35.00065	ER-S30	3000 mm
Sampling pipe Kanthal max. 1200°C		
35.00050	ER-K10	1000 mm
35.00051	ER-K15	1500 mm
35.00052	ER-K20	2000 mm
Sampling pipe Teflon® (PTFE) max. 140°C		
35.00080	ER-T10	1000 mm
35.00081	ER-T15	1500 mm
35.00082	ER-T05	500 mm
Sampling pipe 1.4841 max. 1100°C		
35.00070	ER-H10	1000 mm
35.00071	ER-H15	1500 mm

OPTION 2: HEATED SAMPLING PIPE, Ø 45 mm OD		
Part No.	Description	Length
Heated sampling pipe SS316 max. 200°C		
35.07050	ER-EH05	500 mm
35.07070	ER-EH07	700 mm
<b>35.07100</b>	<b>ER-EH10</b>	<b>1000 mm</b>
35.07150	ER-EH15	1500 mm
35.07200	ER-EH20	2000 mm
35.07250	ER-EH25	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 BACK PURGE VERSION		
Part No.	Type	Description
35.00012	JES301K	Back purge controller 230VAC
35.00013	JES301KX	Back purge controller 115VAC

\*1 ...with non return valve

**bold...Standard configuration**

## ORDER CODE

OPTION 3: IN-SITU PRE FILTER		
Part No.	Description	Length
In-Situ pre filter, pore size 3 µm, SS316L, max. 550°C, Ø 50 mm OD		
<b>35.00703</b>	<b>HD-03</b>	<b>Length 300 mm, up to approx. 10 g/m<sup>3</sup></b>
35.00705	HD-05	Length 500 mm, up to approx. 20 g/m <sup>3</sup>
35.00710	HD-10	Length 1000 mm, up to approx. 30 g/m <sup>3</sup>
In-Situ pre filter with V-deflector, pore size 3 µm, SS316L, max. 550°C, Ø 50 mm OD		
<b>35.00803</b>	<b>HD-03V</b>	<b>Length 300 mm, up to approx. 10 g/m<sup>3</sup></b>
35.00805	HD-05V	Length 500 mm, up to approx. 20 g/m <sup>3</sup>
35.00810	HD-10V	Length 1000 mm, up to approx. 30 g/m <sup>3</sup>
Extension tube for In-Situ pre filter SS316		
<b>35.00910</b>	<b>HD-ET10</b>	<b>1000 mm</b>
35.00920	HD-ET20	2000 mm
35.00925	HD-ET25	2500 mm
Extension tube for In-Situ pre filter Kanthal		
35.00926	HD-ETK25	2500 mm
Gasket for extension / sampling tube		
35.00950	HD-ETGK	3/4", 27x38,2, SIL C 4400

ACCESSORIES	
Part No.	Description
35.90080	Male connector SS316, for 6 mm tube
35.90081	Male connector SS316, for 8 mm tube
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
35.94000	Conversion upgrade kit for JES 300 consisting of temperature sensor PT100 and PCB 230VAC/115VAC

SPARE PARTS	
Part No.	Description
35.90050	Heater element; 230VAC, 50/60 Hz, 500 W
35.90052	Heater element; 115VAC, 50/60 Hz, 500 W
35.90230	Temperature controller with housing, 230VAC/115VAC
35.90260	Temperature sensor PT100 for PCB of JES 301
35.90070	T-handle assembly kit
35.90071	Extractor kit complete
K3522001	Non return valve

FLANGE ADAPTER		
Part No.	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	

GASKET FOR FLANGE	
Part No.	Description
35.00955	Flange gasket DN65
K3501004	Flange gasket ANSI 2"

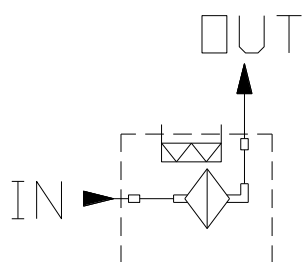
ACCESSORIES FOR HEATED SAMPLE HOSE	
Part No.	Description
35.00970	PG 42 fitting
35.00980	Mounting clamp 35...50mm

CONSUMABLE PARTS	
Part No.	Description
<b>35.90100</b>	<b>Consumable parts kit, consisting of 1 x O-ring A and B, 1 x filter element bonded SiC F10, 2 x gaskets Viton®</b>
35.90101	Consumable parts kit, consisting of 1 x O-ring A and B, 1 x surface coated filter element, 2 x gaskets Viton®
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)
35.90014	Filter element bonded SiC F10, 2 µm, 40/20 x 135mm
35.90018	Surface coated filter element, 40/20x135mm
35.90015	Gasket for filter element, 200°C, Viton® (FKM)
35.90016	Gasket for filter element, 315°C, Kalrez® (FFKM)

## FLOW CHARTS

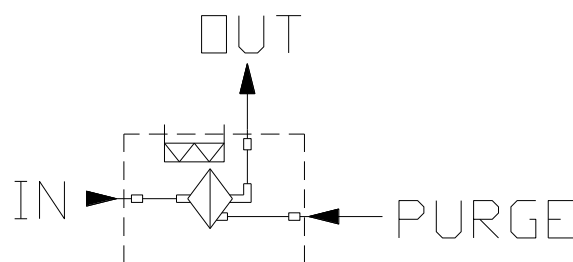
### Basic models

(Art.No. 35.00208, 35.00210, 35.00221, 35.00308, 35.00310, 35.00321)



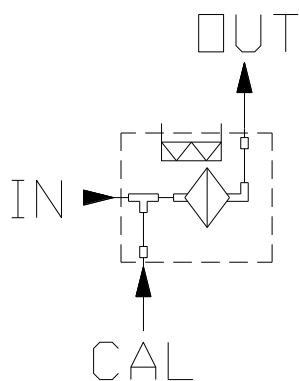
### Models with backpurge port

(Art.No. 35.00212, 35.00213, 35.00312, 35.00313)



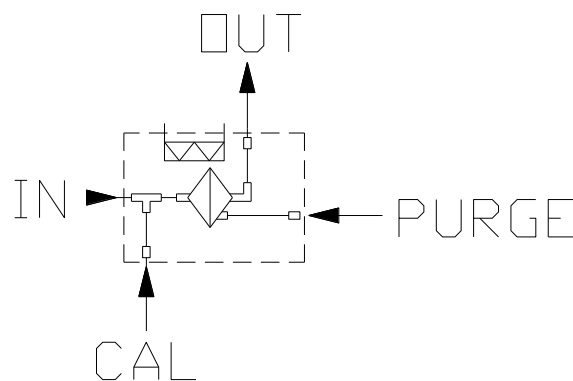
### Models with calibration port

(Art.No. 35.00214, 35.00314)



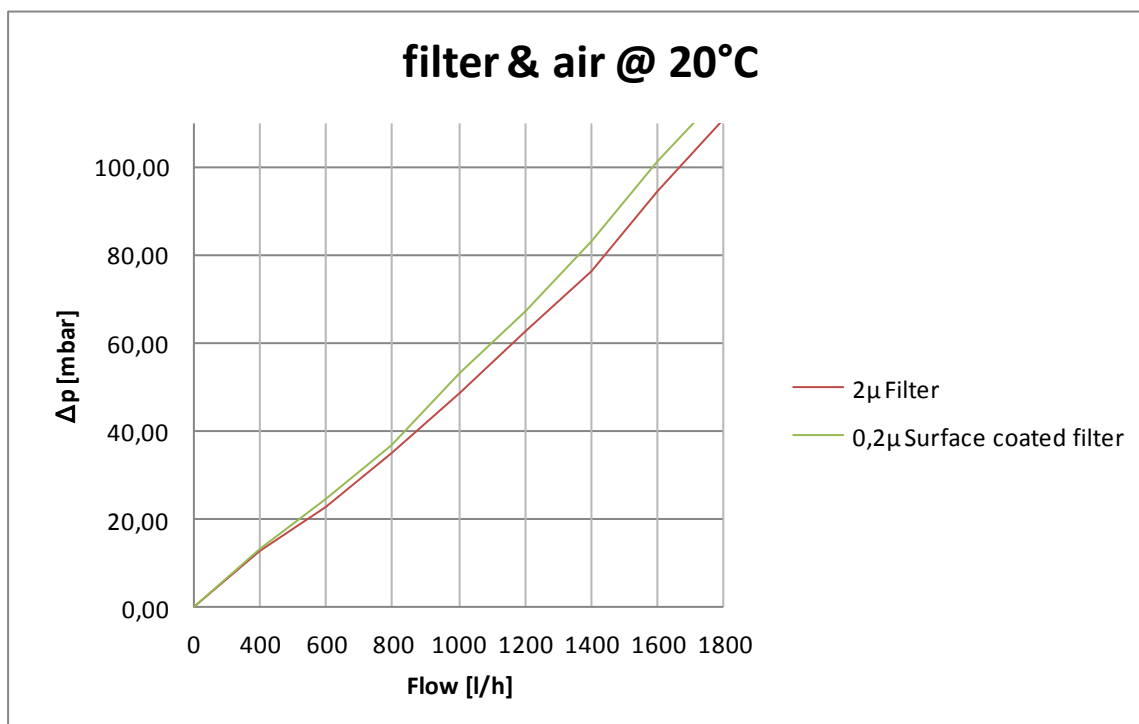
### Models with backpurge and calibration port

(Art.No. 35.00217, 35.00317)



## FLOW DIAGRAM

Pressure Drop (with new filter)



Specification subject to change without notice.

PDS\_E\_JES301\_v2.2

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