JCT Gas Sampling

JBF-301L

Heated Sample Gas Filter

APPLICATION

- Extractive gas analysis
- Emission and process monitoring
- Hot filtration of sample gases
- Removal of dust and contamination from sample gas
- For protection of the analyzers

BENEFITS

- Reliable continuous dust filtration
- No condensation or chemical reactions of sample gas
- No cold spots
- Low and easy maintenance effort
- Filter element change without tools
- Easy mounting and integration in gas analysis systems
- Quick heating up in max. 30 min
- Long service life of the filter elements

FEATURES

- For wall mounting
- Homogeneous heating without cold spots
- Filter elements out of ceramic, 2 µm or 0.2 µm porosity or pyrex wool
- Large filter surface
- Filtration from outside to the inside
- Second sample gas outlet or calibration gas inlet (JBF-301LT)
- Low temperature status contact
- Low dead volume
- Low pressure drop

TECHNICAL DATA

MODEL	JBF-301L	JBF-301LT	JBF-301HL	JBF-301HLT
Description	heated fine dust filter for analyzer protection			
Number of sample gas outlets	1	2	1	2

OPERATION

Operating temperature	approx. 180 °C [356 °F]	180 °C [356 °F] (ex works), adjustable 5° to 315 °C [41° to 599 °F]
Low temperature treshold/contact	145°C [293 °F]	–30 K/+20 K fix to set point
Sample gas inlet temperature	max. 200 °C [392 °F]	
Operating pressure	max. 2 bara	
Ambient temperature	–20° to +60 °C	
Dust load	max. 2 g/m^3, flow dependent	

CONSTRUCTION

Dimensions (W x H x D)	420 x 420 x 184 mm [16.5 x 16.5 x 7.2 in]	
Filter element	ceramic, 40/20 x 66 mm [1.6/0.8 x 2.6 in] 2 µm or surface coated 0.2 µm	pyrex wool
Active filter surface	84 cm^2 [13 in^2]	
Installation	wall or rack mounting	
Sample gas inlet and outlet	NPT 1/8“ female thread	
Sample line mounting	clamps for heated sample lines Ø 40 – 44 mm [1.6 – 1.7 in]	
Sample gas wetted materials	SS316, ceramic, Viton®	SS316, pyrex wool, Perlast®, Kalrez®
Dead volume	62 cm^3 [3.8 in^3]	
Protection class	IP40 according to EN60529	
Weight	approx. 12 kg [26.5 lbs]	
Housing / Color	SS304, thermal insulated / stainless steel natural	
Approvals / Signs	CE	

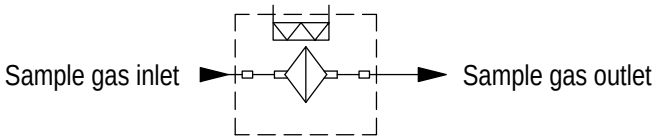
ELECTRICS

Power supply	115 to 230 VAC 50/60 Hz	230 VAC 50/60 Hz
Power consumption	415 W @ 25 °C [77 °F]	approx. 505 VA
Heating element	PTC self-limiting	ring heater, temperature controlled
Temperature controller / Sensor	-	electronic / Pt100
Electrical connection	spring type terminals 0.08 to 2.5 mm^2	
Fusing	external on installation site fuse characteristic C: 230 VAC 6 A; 115 VAC 10 A	-
Protection class junction box	IP65 according to EN 60529	
Switching capacity status contact (volt-free)	min. 24 VDC / 50 mA, max. 230 VAC / 5 A, cos$_\varphi$ 0.95	230 VAC / 2 A, min. 5 VDC / 5 mA
Status contact function	normally open contact, failsafe operation	

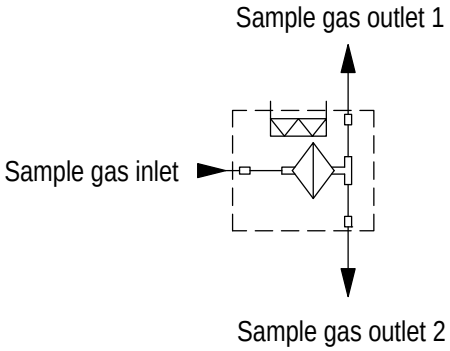
GAS FLOW DIAGRAMM

this flow chart inlcudes all possible options

JBF-301L

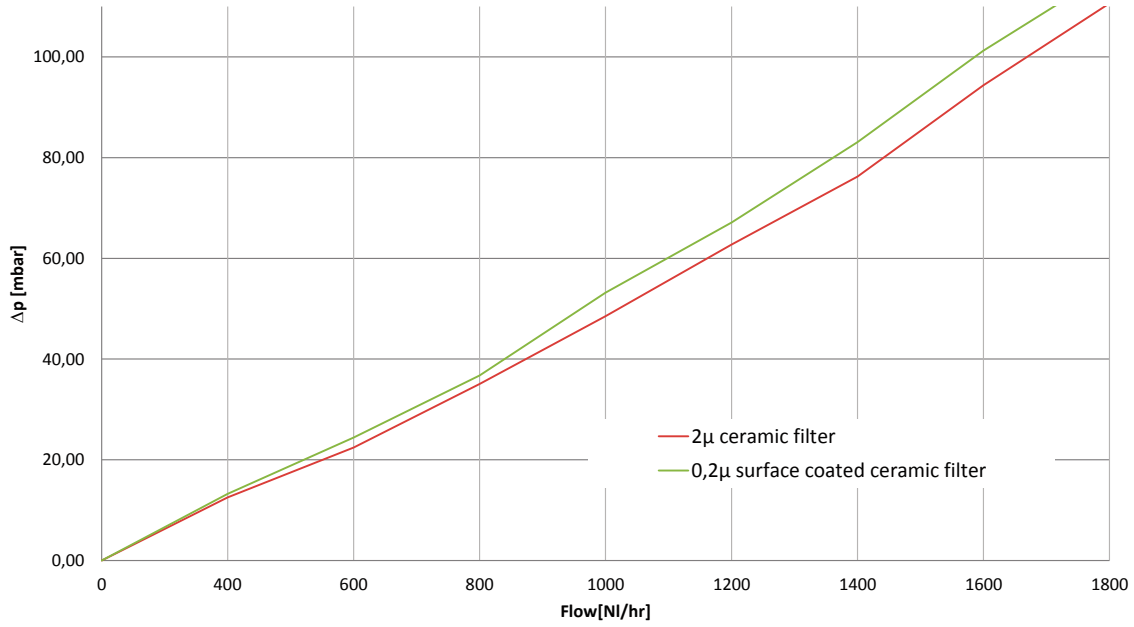


JBF-301LT



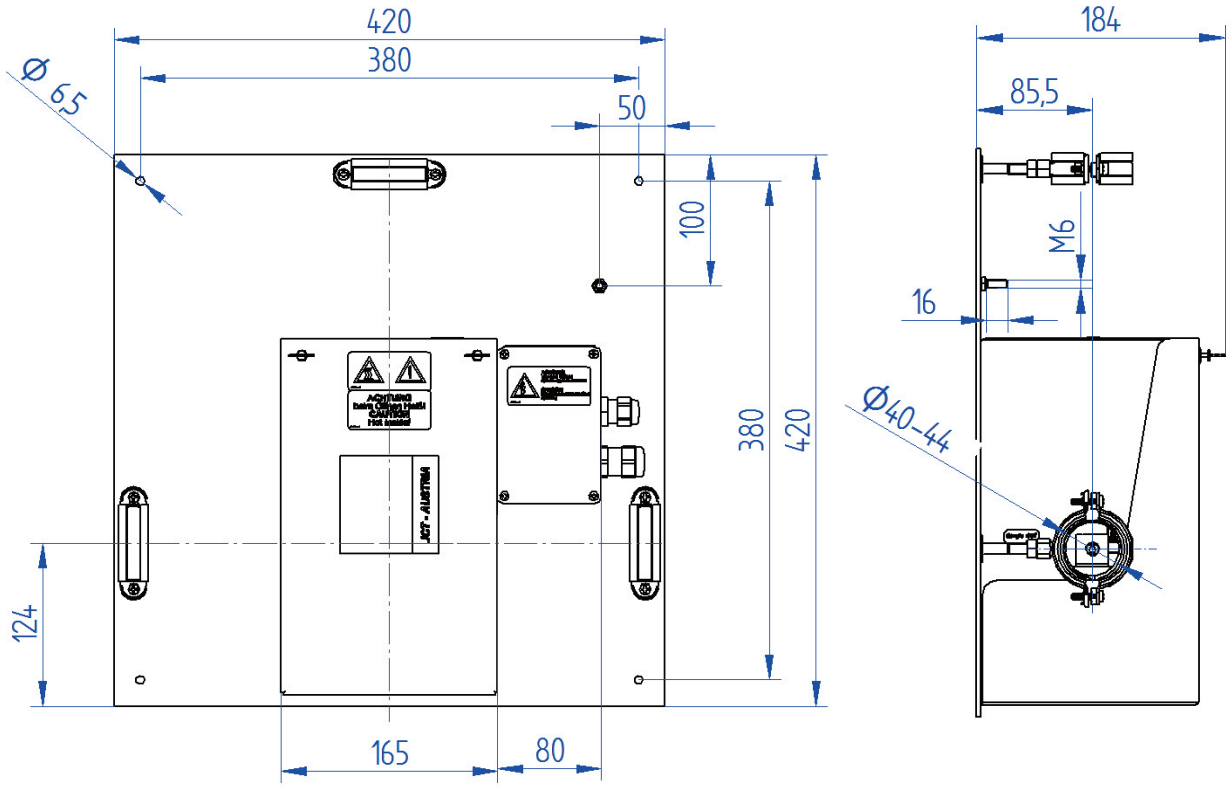
PRESSURE CHARACTERISTICS

Pressure drop with new filter element and air at 20 °C [68 °F]



DIMENSIONS

dimensions in mm



ORDER CODES

Part N°	Description
36.00170	JBF-301L, heated filter, ceramic filter element 2 µm, 115 to 230 VAC 50/60 Hz
36.00180	JBF-301L, heated filter, surface coated ceramic filter element 0.2 µm, 115 to 230 VAC 50/60 Hz
36.00190	JBF-301LT, heated filter, ceramic filter element 2 µm, 115 to 230 VAC 50/60 Hz, with second sample gas outlet
36.00200	JBF-301LT, heated filter, surface coated ceramic filter element 0.2 µm, 115 to 230 VAC 50/60 Hz, with second sample gas outlet
36.00210	JBF-301HL, heated filter, high-temperature version for up to 315 °C, pyrex wool filter element, 230 VAC 50 Hz
36.00220	JBF-301HLT, heated filter, high-temperature version for up to 315 °C, pyrex wool filter element, 230 VAC 50 Hz, with second sample gas outlet