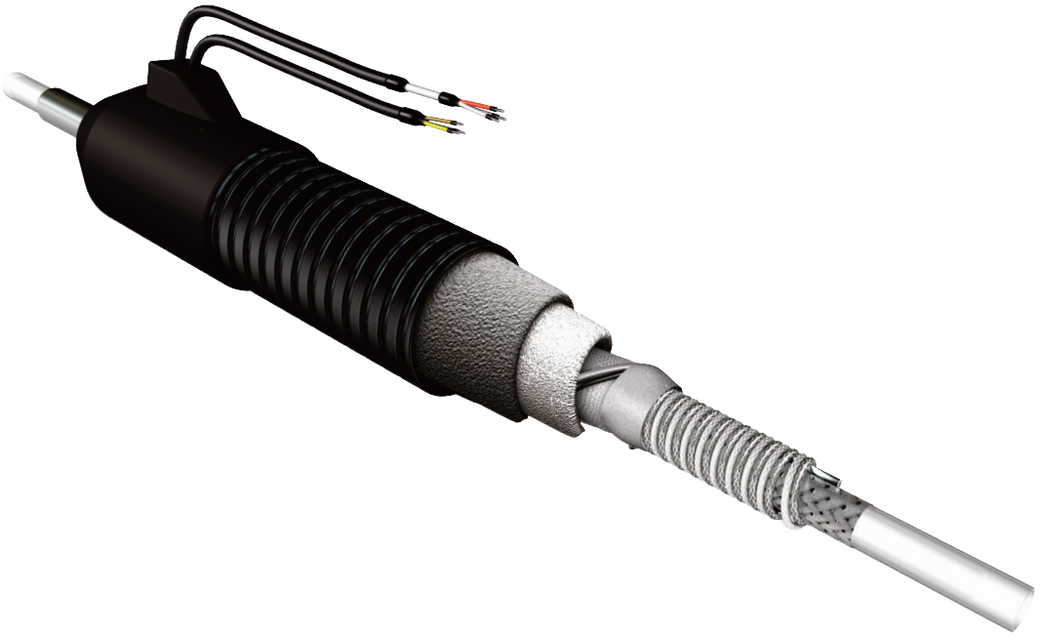
JH3E & JH3ER

Heated Sample Line



APPLICATION

- Extractive gas analysis
- Emission and process monitoring
- Transport of sample gas from sample point to analysis system
- Remains steadly/safely above acid dew point
- Protection against measured value falsification and frost
- Indoor and outdoor use

BENEFITS

- No condensate formation, no freezing
- Resilient external protection
- Excellent insulation
- Optimal heat deployment
- Customer-specific executions
- Easy exchange of the inner core (JH3ER)
- Long lifetime
- Kink protection

FEATURES

- Operating temperature up to 180 °C [356 °F] with temperature controller
- External jacket of corrugate polyamide PA12
- Heat insulated by thermo fleece
- Ready to use
- Interchangeable inner core for JH3ER
- Second core for e.g. calibration gas as option
- Inner core reinforced with stainless steel braid
- Built-in control wires for JES-family sample probes (option)

TECHNICAL DATA

MODEL	JH3E	JH3ER
Description	regulated heated sample line (requires temperature controller)	
External jacket	corrugated polyamide 11/12 jacket, black option: with silicone layer	
Sample gas core	fixed	interchangeable
Area of application	mobile and fixed installation indoor and outdoor	
Integrated control lines (option)	control line 3 x 1.5 mm^2 (power supply) plus 2 x 1 mm^2 (status control)	

OPERATION

Operating temperature	max. 180 °C [356 °F]
Operating pressure at 200 °C	atmospheric option pressure hose: - PFTE / PFA core: DN 4/6 mm 4 bara; DN 6/8 mm 3 bara; DN 8/10 mm 2 bara, 1/4" OD 5 bara, 3/8" OD 4 bara - SS316 core, all diameters: 10 bara
Ambient temperature*	−20° to 60 °C [–4° to 140 °F] (up to 80 °C [176 °F] with optional silicone layer)

* To achieve extended length, **JCT** offers heated lines with reduced power (W/m) or with a second heating circuit. For lower ambient temperatures versions with higher performance are available.

CONSTRUCTION

Material sample gas core	PTFE, PFA, SS316	
Diameter sample gas core	PTFE + PFA: 4/6 mm, 6/8 mm, 8/10 mm, 1/4" x 0.047", 3/8" x 0.062 – 0.063" SS316L: 4/6 mm, 6/8 mm, 8/10 mm, 1/4" x 0.035", 3/8" x 0.035"	
Heating element	design according to DIN moisture proof with protection braid	
Thermal insulation	multi-layered thermo fleece	
End configuration	silicone caps (see table below), sample gas core 100 mm protruded	
Maximum sample line length**	**115 V:** DN 4/6 and 6/8 mm and 1/4" – 30 m [98.4 ft], DN 8/10 and 10/12 mm and 3/8" – 25 m [82 ft] **230 V:** DN 4/6 and 6/8 mm and 1/4" – 60 m [196.8 ft], DN 8/10 and 10/12 mm and 3/8" – 50 m [164 ft], **400 V:** all diameters – 100 m [328 ft] (only for sample gas core DN 6/8 mm or bigger)	**115 V:** DN 4/6 and 6/8 mm and 1/4" – 25 m [82 ft], **230 V:** DN 4/6 and 6/8 mm and 1/4" – 50 m [164 ft], **400 V:** all diameters – 50 m [164 ft]
Diameter sample line outside	43 mm [1.7 in]	
Minimum bending radius	DN 4/6 mm: 200 mm, DN 6/8 mm: 200 mm [7.9 in], DN 8/10 mm: 250 mm, DN 10/12 mm: 250 mm [9.8 in]	DN 4/6 mm: 260 mm [10.2 in] DN 6/8 mm: 260 mm [10.2 in]
Dimensions of silicone caps	L = 110 mm [4.3 in], Ø 49 mm [1.9 in], Ø 56 mm [2.2 in] with integrated control lines	
Protection class	IP54 (EN 60529)	

ELECTRICS

Power supply	115 VAC 50/60 Hz or 230 VAC 50/60 Hz or 400 VAC 50/60 Hz Y-connection (L1, L2, L3, PE)	
Power consumption	DN 4/6 mm: 90 W/m; DN 6/8 mm: 90 W/m; DN 8/10 mm: 100 W/m ; DN 10/12 mm: 100 W/m	DN 4/6 mm: 100 W/m; DN 6/8 mm: 100 W/m
Connection cable	1.5 m [59 in] with open leads	
Connection plug (option)	4-pin + PE or 6-pin + PE connector	

** The specified hose length is determined as follows:
1) for heated hoses with fittings - the heated hose length including the fittings
2) for heated hoses without fittings - the heated hose length including the end caps. The length of the protruding inside tube is not included.
Admissible deviations of dimension L_1 for factory mounted heating hoses. The manufacturing tolerances correspond to DIN 20066.

Suitable temperature controller can be found at www.jct.at

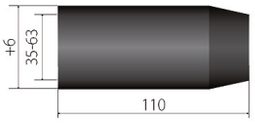
ORDER CODE

JH3E with fixed inner core

Temperature sensor Pt100	2											
Temperature sensor NiCr-Ni type K	4											
2 x Temperature sensor Pt100	9											
Jacket made of corrugated PA 11/12		4										
Jacket made of corrugated PA 11/12 with silicone layer		9										
Core 100 mm protruded			0									
Line length* without protrusion in dm (e.g.: 10 m = 100; 4.5 m = 045)				XXX								
Diameter DN 4/6 mm					4							
Diameter DN 6/8 mm					6							
Diameter DN 8/10 mm					8							
Outer diameter DN 1/4”					5							
Outer diameter DN 3/8”					7							
PTFE core						PTFE						
PFA core						PFA						
SS316L core						SS						
Power supply 115 VAC 50/60 Hz							1					
Power supply 230 VAC 50/60 Hz							2					
Power supply 400 VAC 50/60 Hz Y-connection							4					
End configuration side 2 type H (without electrical connection)								H				
End configuration side 1 type K (with electrical connection)								K				
End configuration side 1 type L (with electrical connection)								L				
Without calibration core									0			
Calibration core DN 4/6 mm, PTFE									4			
No connection plug, wire open end										A		
Connection plug 6-pole + PE plug (max. 10 A)										B		
Connection plug 4-pole + PE plug (max. 20 A)										C		
Customized version (detailed description needed)												XY
Order code	**JH3E.**		0									XY

END CONFIGURATION OF SAMPLE LINE

Dimensions in mm

Without electrical connection (side 2 – probe side)		With electrical connection (side 1 – cabinet side)		Type
H			**K**	silicone cap
			**L**	silicone cap

ORDER CODE

JH3ER with interchangeable inner core

Temperature sensor Pt100	2														
Temperature sensor NiCr-Ni type K	4														
2 x Temperature sensor Pt100	9														
Jacket made of corrugated PA 11/12		4													
Jacket made of corrugated PA 11/12 with silicone layer		9													
Core 100 mm protruded			0												
Line length*** without protrusion in dm (e.g.: 10 m = 100; 4.5 m = 045)				XXX											
Diameter DN 4/6 mm					4										
Diameter DN 6/8 mm					6										
Outer diameter DN 1/4”					5										
PTFE core						PTFE									
PFA core						PFA									
Power supply 115 VAC 50/60 Hz							1								
Power supply 230 VAC 50/60 Hz							2								
Power supply 400 VAC 50/60 Hz Y-connection							4								
End configuration side 2 type H (without electrical connection)								H							
End configuration side 1 type K (with electrical connection)									K						
End configuration side 1 type L (with electrical connection)									L						
Without calibration core										0					
Calibration core DN 4/6 mm										4					
No connection plug, wire open end											A				
Connection plug 6-pole + PE plug (max. 10 A)											B				
Connection plug 4-pole + PE plug (max. 20 A)											C				
Customized version (detailed description needed)															XY
Order code	**JH3ER.**		0					H							XY

*** The specified hose length is determined as follows:
1) for heated hoses with fittings - the heated hose length including the fittings
2) for heated hoses without fittings - the heated hose length including the end terminations. The core projection is shown separately.
The length tolerance refers to a temperature of 24 °C, operational changes in length (pressure, temperature...) are not covered by this specification.
Permissible deviations from dimension L1 for fully assembled heated hoses. The manufacturing tolerances correspond to DIN 20066.

Suitable temperature controller can be found at www.jct.at

ORDER CODES ACCESSORIES

		Part N°
	Universal mounting clamp for mounting at JES series gas sample probes for line diameters 35 to 50 mm [1.4 to 2 in] (requires big mounting hole in sample probe)	**35.00980**
Heat shrink cable entry seal	70.48 mm [2.90 in] for use as cabinet entry seal	**K1047164**