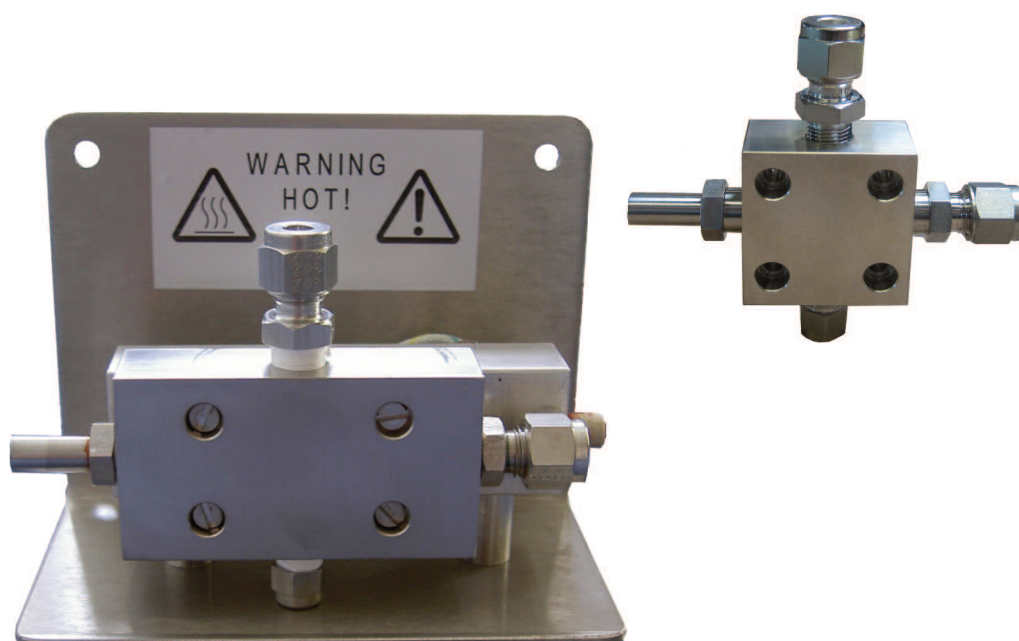




JCT
Analysentechnik

JDU Dilution Unit



Gas Sampling Probes

Heated Sample Lines

Sample Gas Coolers

Condensate Treatment

Accessories

Gas Conditioning Systems

Sample Gas Converters

APPLICATION

- For extractive gas analysis of explosive gas mixtures
- For emission and process monitoring
- For flame breakthrough prevention in case of instable detonations and deflagration of combustible gas or gas/steam mixtures classified by explosion category IIC
- For integration in gas analysis systems

BENEFITS

- Reliable and safe flame breakthrough prevention
- No change of sample gas
- Easy mounting and integration in gas analysis systems
- Very long lifetime
- Low maintenance effort
- Corrosion resistant

FEATURES

- ATEX-approval (Ex IIG IIC)
- Available in stainless steel or Hastelloy
- With incorporated ceramic sinter body (porosity 80 μm)
- For wall or bulkhead mounting
- Compact robust construction
- Low dead volume
- Suitable for high pressures and temperatures
- Heated version up to 200°C inclusive controller available
- Variable connection technology

TECHNICAL DATA

Model	JDU-US	JDU-H
Description	Sample gas dilution unit	
Heating	no	yes
Dilution ratios	1:10, 1:12,5, 1:20, 1:37,5, 1:50, 1:100, 1:200	

Operation

Operating temperature	–	max. 180°C
Ambient temperature	+5° to +50°C (min. +5°C above sample gas dew point)	
Supply pressure	4 to 5 bara	
Admissible back pressure	< +50 mbar	
Heating-up time	–	approx. 30 min

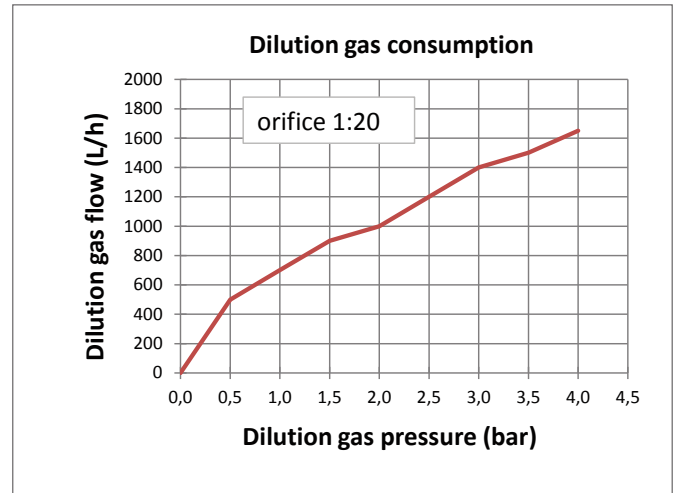
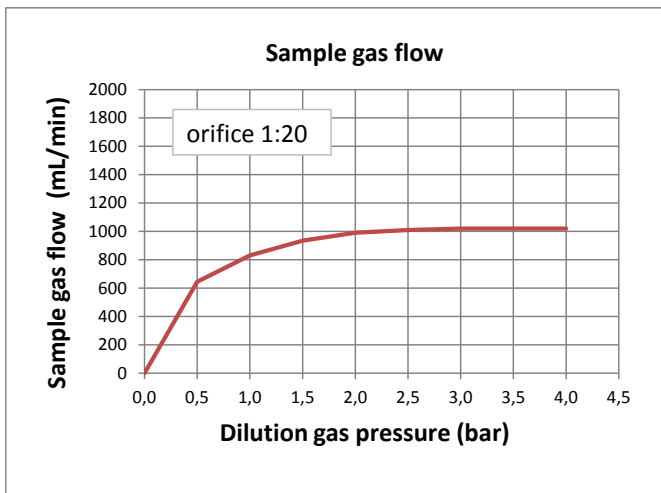
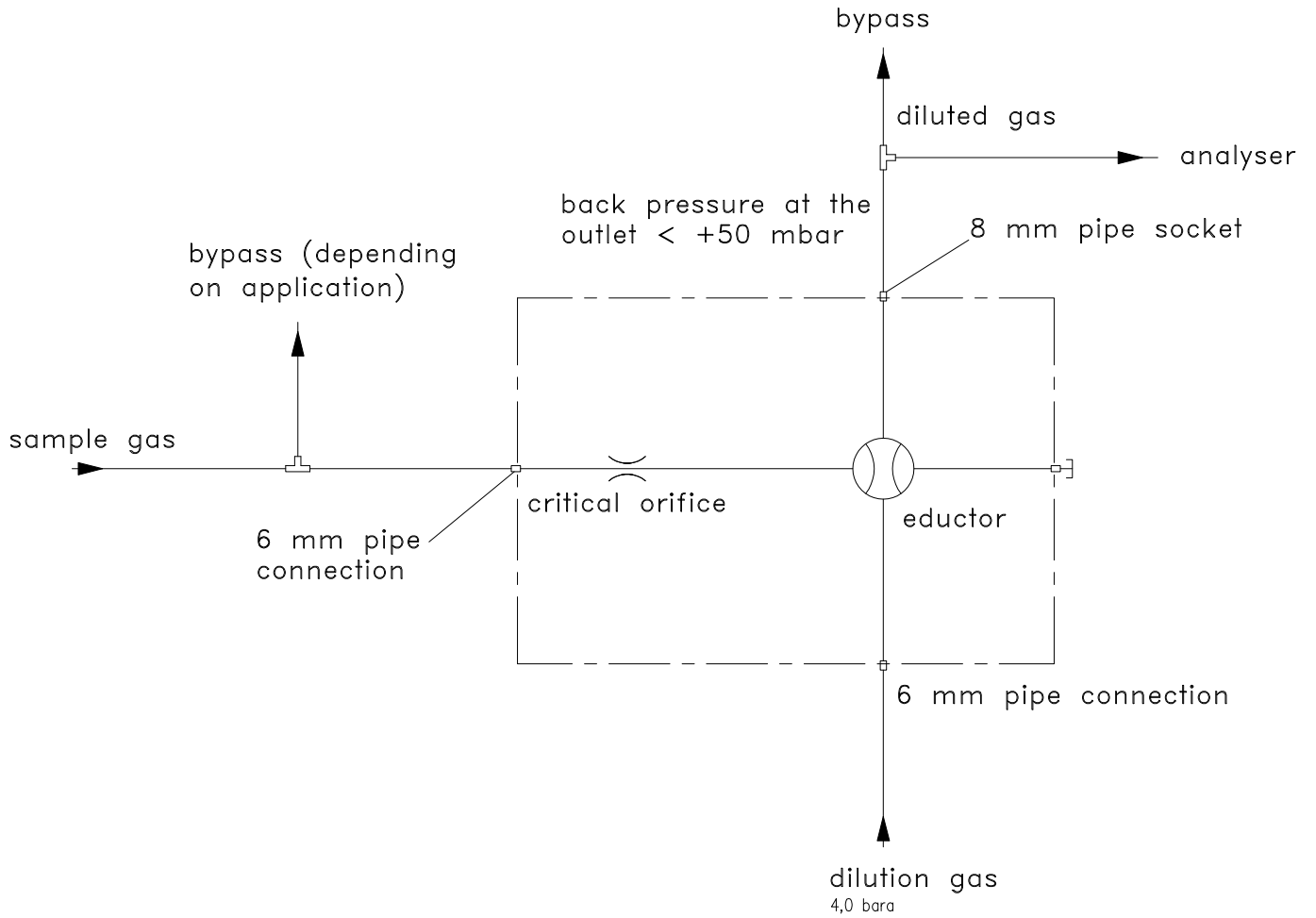
Construction

Dimensions over all (W x H x D)	90 x 74 x 20 mm	130 x 75 x 100 mm
Weight	approx. 0,5 kg	1,2 kg
Connections dilution gas / Sample gas	6 mm bulkhead union	
Connection diluted sample gas	8 mm pipe stub	
Gas wetted materials	SS 316, glass	
Mounting / Position	wall mounting / any	
Protection class	IP 66 (EN60529)	IP 20 (EN60529)
Recommended dilution gas	instrument air or inert gas (e.g. nitrogen 5.0)	
Approvals / Signs	CE	

Electrics

Power supply	–	230 VAC 50/60 Hz
Power consumption	–	approx. 160 W
Temperature sensor	–	RTD Pt100
Electrical connection	–	2 x 2-pole cables with free ends

GAS FLOW DIAGRAM / PERFORMANCE DIAGRAMS



ORDER CODES

Part number	Description
79.00003	JDU-U unheated dilution unit, dilution ratio 1:10
79.00004	JDU-U unheated dilution unit, dilution ratio 1:20
79.00011	JDU-U unheated dilution unit, dilution ratio 1:50
79.00012	JDU-U unheated dilution unit, dilution ratio 1:100
79.00013	JDU-U unheated dilution unit, dilution ratio 1:200
79.00010	JDU-US unheated dilution unit, specify dilution ratio with the order
79.00006	JDU-H heated dilution unit, max. 180°C, dilution ratio 1:10
79.00007	JDU-H heated dilution unit, max. 180°C, dilution ratio 1:20
79.00020	JDU-H heated dilution unit, max. 180°C, dilution ratio 1:50
79.00021	JDU-H heated dilution unit, max. 180°C, dilution ratio 1:100
79.00022	JDU-H heated dilution unit, max. 180°C, dilution ratio 1:200

Accessories

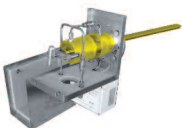
89.00100	Temperature controller JPXR4
89.90000	Preconfiguration of temperature controller
89.00500	Solid state relay
HT42-20P	Temperature controller HT42
79.90050	Precision pressure regulator, 1/4", 10 bar
35.00673	JDCP Dilution control panel

Spare parts

79.90010	Orifice, dilution rate 1:200
79.90015	Orifice, dilution rate 1:100
79.90020	Orifice, dilution rate 1:50
79.90025	Orifice, dilution rate 1:37,5
79.90030	Orifice, dilution rate 1:25
79.90035	Orifice, dilution rate 1:20
79.90040	Orifice, dilution rate 1:12,5
79.90045	Orifice, dilution rate 1:10

All dilution data are approximate values and can be varied with the dilution gas.

Gas Sampling **Probes**



Heated Sample **Lines**



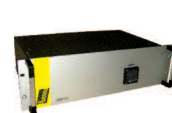
Sample Gas **Coolers**



Gas Conditioning **Systems**



NOx **Converter**



and solutions for

