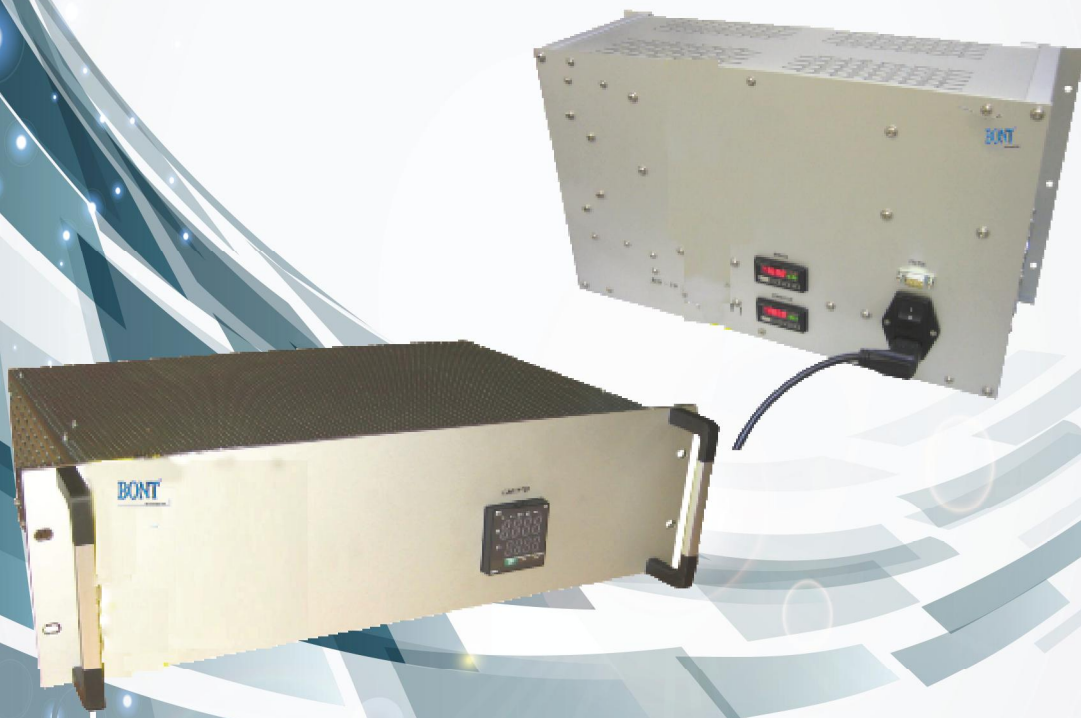


NO₂ to NO Sample Gas Converter

NG 3000-NO₂-NO



BONT[®]

Bont Technologies GmbH

Application

- For extractive gas analysis.
- For emission and process monitoring.
- Conversion of NO₂ to NO for NO_x measurement.
- Enables the use of infrared-analysers.
- For dry sample gases with unheated inlet or for hot and humid sample gases with heated inlet.

Benefits

- Variable applicable due to different housing and equipment versions.
- Long lifetime of the converter cartridge of approx. 10⁶ ppmh NO₂
- High conversion ratio.
- Fast response time due to low dead volume.
- No CO-Emission with molybdenum containing converter filling material.
- High flow performance.
- Low cross sensitivities.

Features

- In 19"-, wall mounting or portable housing.
- Efficiency of converter > 96%.
- Digital temperature indication and status LED's.
- Status contact.
- Conversion material carbon or metallic (molybdenum containing).
- Model with unheated or heated bypass connection upstream conversion or additional measurements or fast response times.
- Model with local or remote controllable unheated or heated 2/3-way solenoid valve to bypass the converter cartridge for calibration or test gas feeding.

Technical Data

Model	NO ₂ -NO-CT	NO ₂ -NO-CV	NO ₂ -NO-T	NO ₂ -NO-V
Description	NO ₂ to NO sample gas converter for NO _x measurements			
With heated sample gas inlet	No	No	Yes	Yes
With bypass in the sample gas inlet	Yes	No	Yes	No
With bypass of converter cartridge	No	Yes	No	Yes

Operation

Operating temperature carbon cartridge **	400°C
Operating temperature metallic cartridge (molybdenum containing)	380°C
Gas flow carbon cartridge **	30 ... 90 NL/hr (45 ... 60 NL/hr recommended)
Gas flow metallic cartridge	Max. 60 NL/hr
NO ₂ carbon cartridge	Up to 1000 ppm application dependent
Permitted NO ₂ concentration metallic cartridge	Application dependent
Life time carbon cartridge*	Up to 10 ⁶ ppmh NO ₂ application dependent
Life time metallic cartridge*	Application dependent
Converter efficiency	> 96%
Ambient temperature	+5 ... +40 °C
Operating pressure	Max. 2 bara
Ready for operation	< 30 min
Temperature heated inlet	160 °C

Construction

Mounting	19" rack			
Dimensions over all (W x H x D)	483 x 133 x 300 mm		483 x 133 x 472 mm	
Weight	ca. 9 kg		ca. 12 kg	
Housing	19", sheet steel, 1.5 mm, galvanised			
Front plate	Aluminium, natural anodised			
Connection sample gas inlet	SS316 fitting, 6 mm			
Connection sample gas outlet	PVDF fitting, DN 4/6 mm			
Connection bypass outlet	PVDF fitting, DN4/6 mm		SS316 fitting, 6 mm	
Approvals / signs	TUV EC Conformity			

Electrics

Power supply	230 VAC 50/60 Hz or 115 VAC 50/60 Hz \pm 10%
Power consumption (depending on configuration)	260 ... 425 VA
Power connection	IEC device socket / CEE 7/7 to IEC plug, 2 m cable
Fusing (in IEC device socket)	Lead fuse T5A
Protection class	IP 20 (EN 60529)
On time	100%
Temperature alarm limits	+20K (converter) / +10K (heated inlet)
Alarm delay	0.5 s
Status relay	Volt free changeover contact
Switching capacity relay	Max. 48 VAC / 0.5A; Min. 5 VADC 5mA
Connection status relay / external	DB9-plug
Status contact bypass valve	Make contact volt free 24 VDC / 2A
Status contact local / external	Make contact volt free 24 VDC / 2A

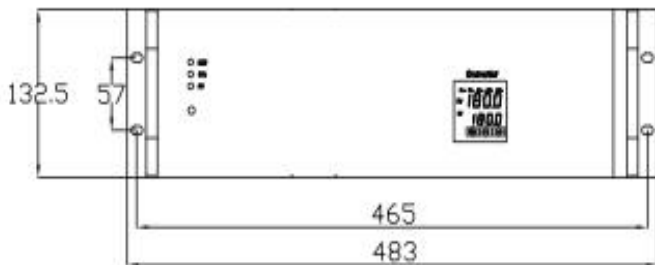
* ... in case of perfect sample gas conditioning

** a downstream filter is recommended

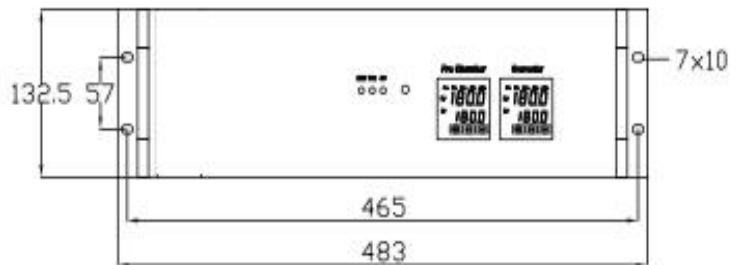
The above listed converter models are also available as portable version in aluminium housing or in wall mounting housing (see also table order codes on page 4)

Dimension

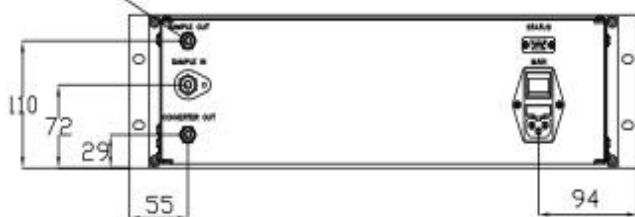
NO₂-NO-CT/CV



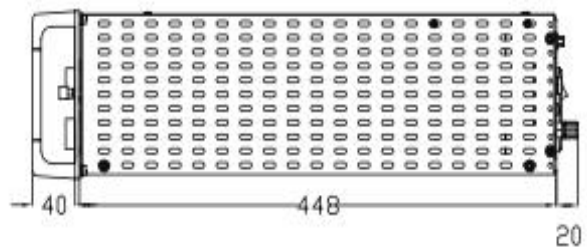
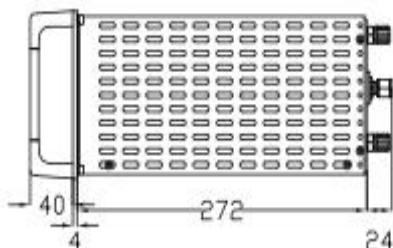
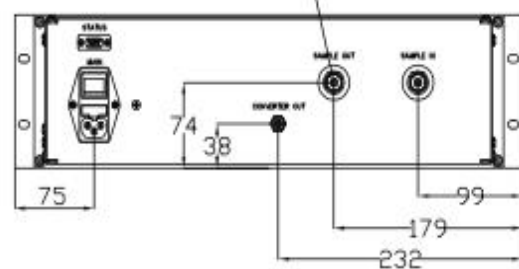
NO₂-NO-T/V



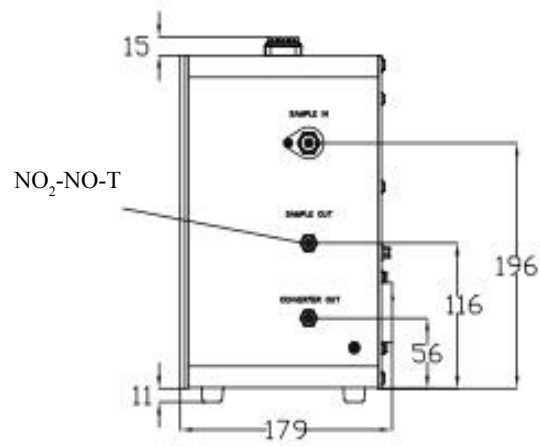
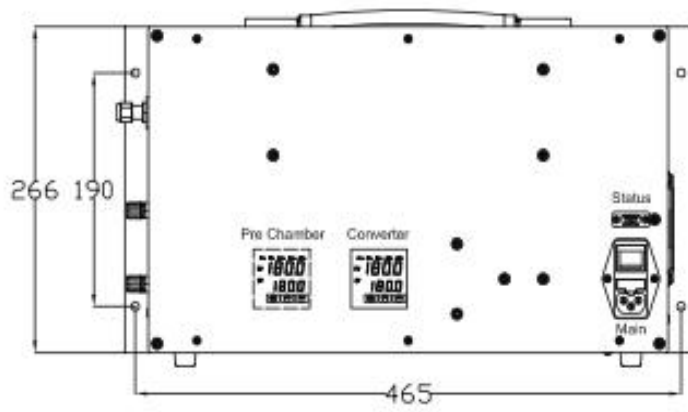
NO.-NO-CT



NO₂-NO-T

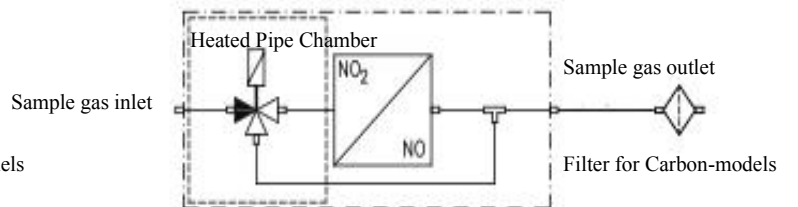
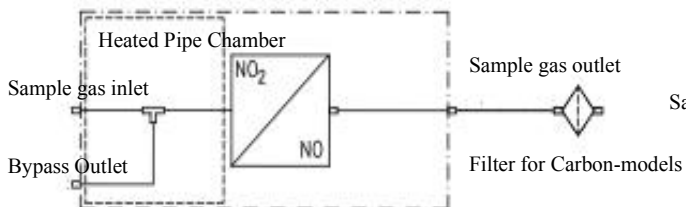
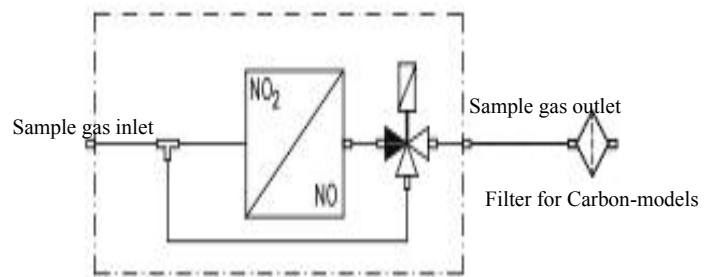
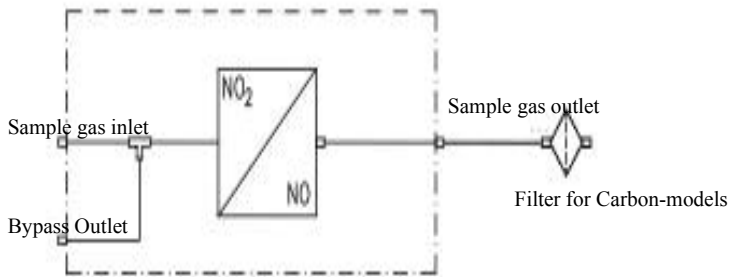


NO₂-NO-CTW / CVW / TW / VW / CTP / CVP / TP / VP in portable (P) or wall mounting housing (W)



Gas Flow Diagrams

NO₂-NO-CT



Order Codes

NO₂-NO

Model	-CT/C	-CT/M	-CV/C	-CT/M	-T/C	-T/M	-V/C	-V/M	-CTW/C	-CTW/M	-CVW/C	-CVW/M	-TW/C	-TW/M	-VW/C	-VW/M	-CTP/C	-CTP/M	-CVP/C	-CVP/M	-TP/C	-TP/M	-VP/C	-VP/M
Unheated sample gas inlet	X	X	X	X					X	X	X	X					X	X	X	X				
Heated sample gas inlet					X	X	X	X					X	X	X	X								
Bypass (T)	X	X			X	X			X	X			X	X			X	X			X	X		
Solenoid valve (V)			X	X			X	X			X	X			X	X			X	X			X	X
Converter material carbon (/C)	X		X		X		X		X		X		X		X		X		X		X		X	
Converter material metallic (/M)		X		X		X		X		X		X		X		X		X		X		X		X
19" housing	X	X	X	X	X	X	X	X																
Wall mounting housing (W)									X	X	X	X	X	X	X	X								
Portable housing (P)																	X	X	X	X	X	X	X	X
Order code X = 0 : 230 VAC X = 1 : 115VAC	NG 3000-NO2-NO.20x40	NG 3000-NO2-NO.20x42	NG 3000-NO2-NO.20x50	NG 3000-NO2-NO.20x52	NG 3000-NO2-NO.30x00	NG 3000-NO2-NO.30x01	NG 3000-NO2-NO.30x10	NG 3000-NO2-NO.30x11	NG 3000-NO2-NO.21x40	NG 3000-NO2-NO.21x42	NG 3000-NO2-NO.21x50	NG 3000-NO2-NO.21x52	NG 3000-NO2-NO.31x00	NG 3000-NO2-NO.31x01	NG 3000-NO2-NO.31x10	NG 3000-NO2-NO.31x11	NG 3000-NO2-NO.22x40	NG 3000-NO2-NO.22x42	NG 3000-NO2-NO.22x50	NG 3000-NO2-NO.22x52	NG 3000-NO2-NO.32x00	NG 3000-NO2-NO.32x01	NG 3000-NO2-NO.32x10	NG3000-NO2-NO.32x11

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