

NO₂/NO Sample Gas Converters

PSG NC / PSG NCB / PSG NCS

Application

The NO₂/NO sample gas converters series **PSG NC** are used for continuous extractive gas analysis. They serve primarily for conversion of NO₂ to NO for determination of NO_x as a sum of NO and NO₂. This enables the use of a NO-analyzer for measurement of the total nitrogen oxide concentration in burning processes like e.g. power plants or waste incinerations.

Technology

The centerpiece of **PSG NC** and **PSG NCB** is an oven within the easy to change molybdenum filled catalyst cartridge. The precise electronic temperature control to only 225°C in combination with the long-lasting catalyst cartridge achieves high conversion ratios even at high flow rates. Unique on the market is the catalyst reaction without any CO emission! The **PSG NCB** converter is additionally equipped with a 3/2-way solenoid valve downstream the catalyst cartridge to offer a bypass for test and calibration reasons.

Functions

Almost the total NO₂ amount of the sample gas is converted to NO with help of the molybdenum catalyst at an operating temperature of only 225°C. The low operating temperature prevents unwanted side-reactions. The change of the catalyst cartridge can be done very quick and simple via a thermally decoupled handle within short time. The bypass valve of the **PSG NCB** can be activated on the front panel to check e.g. the status of the catalyst cartridge with NO₂ test gas or for calibration via converter without influence of the catalyst.

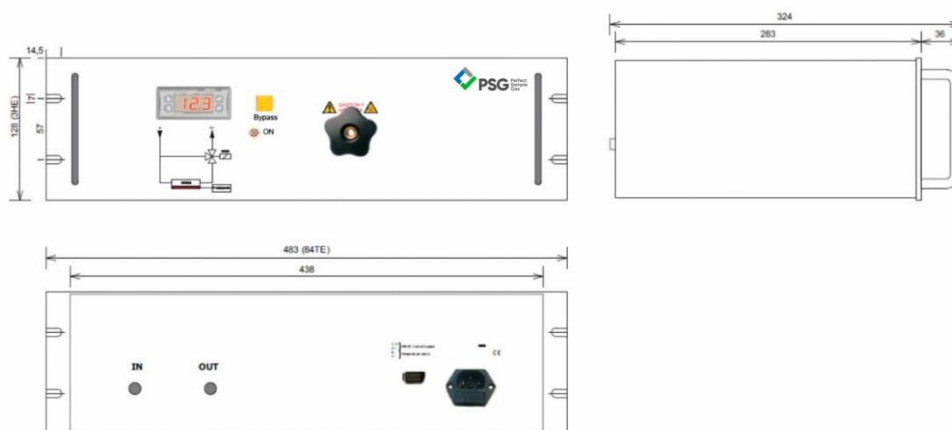


- ✓ High conversion efficiency
- ✓ Long cartridge lifetime even at high flow rates
- ✓ No CO emission
- ✓ Low operating temperature of 225 °C
- ✓ Simple change of catalyst cartridge without any tools
- ✓ Bypass solenoid valve

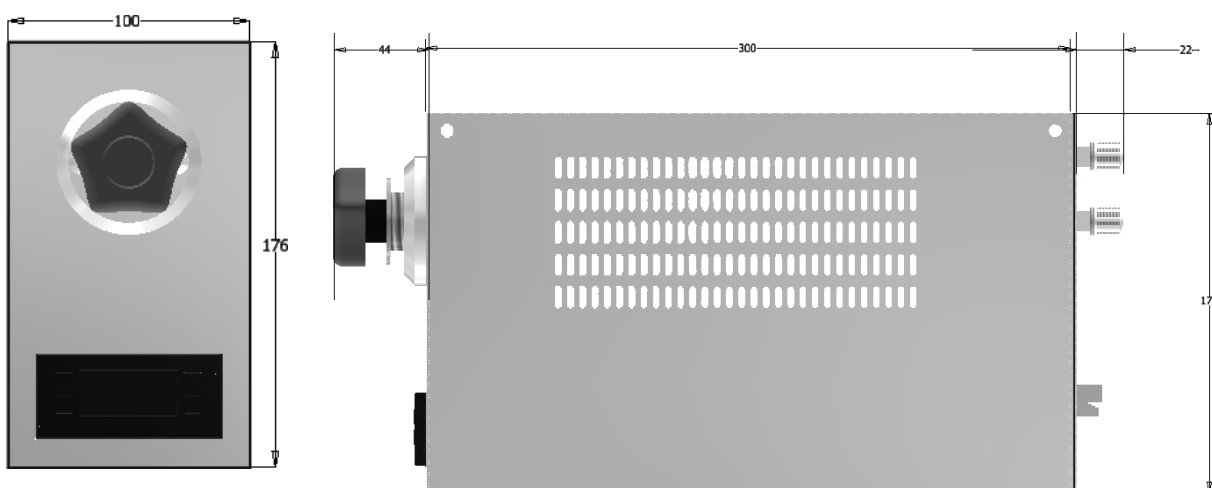
Technical data

PSG NC / NCB / NCS				
Model		PSG NC	PSG NCB	PSG NCS
Part number		30000886	30000887	30000888
Bypass valve		no	yes	no
Operating temperature	°C	225 for standard molybdenum filling (600 for optional metal filling)		
Max. temperature	°C	600		
Gas flow rate V_n	l/hr	standard 60 (max. 90)		
Operating pressure	bar	max. 2		
Gas inlet temperature	°C	max. 250		
Sample gas connections		¼" NPT f		
Conversion ratio	%	> 96 (new cartridge)		
Lifetime converter cartridge		approx. 6 months (depending on flow rate and NO ₂ concentration)		
Relative air humidity	%	< 80		
Ambient temperature	°C	+5 to +50		
Materials of gas wetted parts		stainless steel SS316, PTFE, FKM		
Design data				
Dimensions (W x H x D)	mm	483 x 128 x 283	100 x 176 x 300	
Weight	kg	approx. 5		
Housing / colour		19"-rack / RAL 9003	wall mounting / steel grey	
Electrical data				
Power supply		230V 50 Hz (others on request)		
Temperature display		digital		
Alarm set-points	°C	± 10.0		
Protection rate		IP 20 EN 60529 / EN 61010		
Power consumption	W	approx.. 450		
Alarm contact		freely programmable 1NO/1NC, rating: 250V, 5A AC		

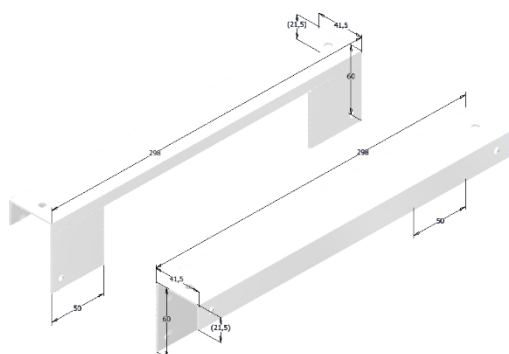
PSG NC / NCB Dimensions



PSG NCS Dimensions



Mounting brackets (can be mounted in 4 different positions)



Dimensions in mm

State 07 / 2022 | Subject to change