



# Ankersmid Sampling



## Control Module ACM, NO<sub>2</sub>-NO converter AOX

The Control Module Series ACM for 19"-rack mounting is a modular system with an integrated Siemens S7 touchscreen PLC and used as a compact all-in-one device to monitor and control all gas sampling and gas conditioning equipment such as sample probe, cooler, sample line, pump and flow of gas media.

The NO<sub>2</sub> to NO converter Series AOX can be connected to a NO<sub>x</sub> or NH<sub>3</sub> gas analyzer for flue exhaust. The converter is using a special catalyst that converts NO<sub>2</sub> in sample gas to NO with high efficiency.

### Applications:

- Continuous emission monitoring (CEM)**
- Gas analysis systems**
- Chemical and petro-chemical industry**
- Automatic calibration featuring most analyzers**
- Back-purge automatic, manual or flow dependent**
- High temperature combustion processes**
- Numerous useful pre-installed maintenance and alarm features**

**"A tailor-made all-in-one solution"**

### Reference customers:

**SIEMENS**

**ABB**

**umicore**

**BASF**  
The Chemical Company



## Control Module Series ACM

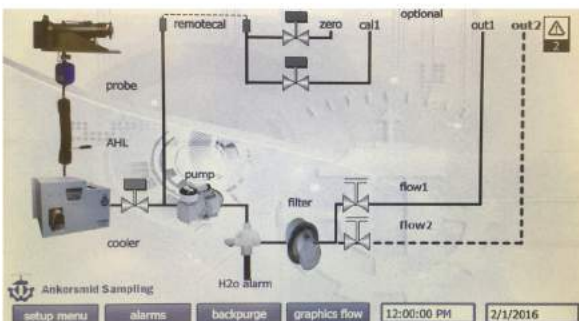
The ACM Module has a Siemens Touch-screen PLC S7, panel filter type APF, moisture sensor ALA 002, up to 5 calibration valves (standard zero & span) for calibration via cooler or probe, back-purge output, ultrasonic flow sensor and a gas pump integrated. Depending on the ACM version the gas pump can be flow-adjusted.

A remote control for calibration and back-purge as well as MODBUS and USB-output and output alarm relays are implemented.

The gas flow is measured and monitored by an integrated ultrasonic flow sensor. High/low flow alarm levels can be set customized. Up to 2 outputs for flow measurement.

The PLC S7 is able to monitor and control a heated gas sample probe and furthermore to operate various back-purge procedures.

The integrated optical moisture sensor can detect any kind of liquid, conductive and non-conductive. The gas pump will be switched-off automatically in case of liquid inrush.



**Touch-screen PLC Siemens S7  
with tailor-made software**



**Ultrasonic flow sensor**



**Flow-controlled gas pump with  
pull-out system for easy access**



**Optical moisture sensor for  
automatic gas pump switch-off**



**With USB and MODBUS interface**



**Compact housing  
for 19"-racks**

## NO<sub>2</sub>-NO converter Series AOX

The NO<sub>2</sub> to NO converters series AOX are to be coupled with a NO<sub>x</sub> or NH<sub>3</sub> gas analyzers for flue exhaust as in many countries clean-air regulations require a continuous measurement of NO<sub>x</sub> (nitrogen oxides) - as the sum of NO<sub>2</sub> (nitrogen dioxide) and NO (nitrogen monoxide) - for combustion processes as soon as the part of NO<sub>2</sub> exceeds 5% of the total NO<sub>x</sub> emission.

The converter is using a special molybdenum catalyst which efficiently converts NO<sub>2</sub> in sample gas to NO. Thanks to the innovative catalyst composition the device is operating at a moderate temperature of +225°C.

A special carrier material ensures that no CO-emission is created in the converter.



High flow rate at long operating time and high conversion efficiency (98% with new cartridge)



Special Molybdenum catalyst for zero CO emission and moderate operating temperature of +225°C



Digital PID-controller with high/low-temperature alarm



Catalyst cartridge easy to change without any tools



DIN housing for 19"-rack mounting  
Mini housing for universal mounting



Integrated version in a sintered steel filter for direct operation in a heated sample probe



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