# SAM-1000_DPS


- **Modular design of sample switching and control system**
- **Death volume optimized gas switching**
- **Remote access vía TCP/IP**
- **Universal parameterization of the I/O signals**

The sample handling module SAM-1000_DPS replace the URSL systems. The URSL system is characterized by its flexible use in the range of loading and fillings systems. The flexibility is achieved in the SAM-1000_DPS by 3 different standard valve modules, the standardized electronic equipment and the new software. All specific project settings are stored in the sample handling module via touch panel.
The communication to the DCS will be realized via Profibus DP and for remote control or service support an Ethernet interface is installed.

Enclosed you´ll find technical information about application and operation of the new sample handling module
SAM-1000_DPS.

Digital form at:
www.cgs-company.de/downloads/MDZ_E_D_SAM-1000_DPS.pdf

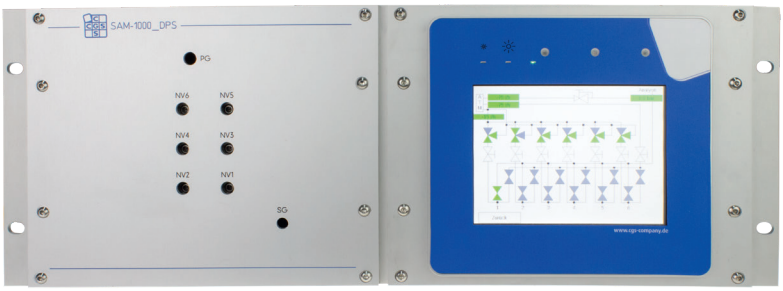


CGS ANALYSEN-, MESS- UND REGELTECHNIK GMBH
Keltenstraße 3
D-85095 Denkendorf
Tel.: +49 8466 / 9415 - 0
Fax: +49 8466 / 9415 - 49
sales@cgs-company.de
www.cgs-company.de

## Modular design

Sample switching

Control system

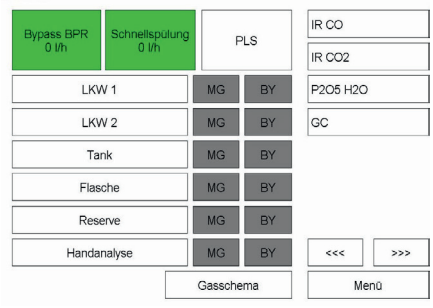


The modular design allows maintenance on the gas switching module or on the electronic without shutting down the complete system. After disconnecting the block connector between the gas switching valves and the electronic we have a sample gas flow in the switching valve block through the bypass. So a flushing of the gas lines after a restart is not needed.

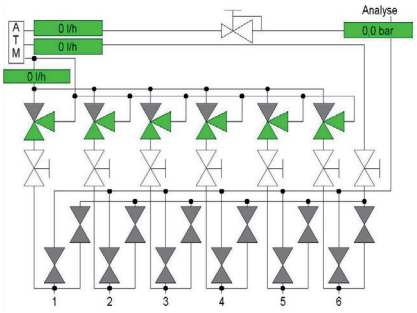
## Control system

The compact control system is operated by a Touch-Web-Panel. The easy user interface allows the operator to control each function of the module in front of it.

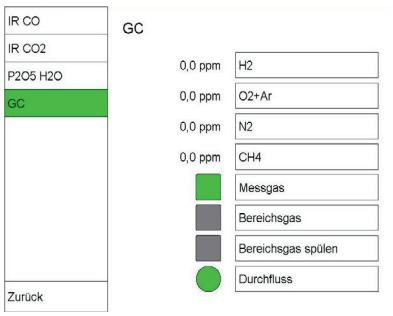
### User interface




Display of current status




Overview gas schematic




Various configuration of the overview of each

The local operation is locked for the technician if the SAM is in automatic operation (DCS mode). Only under manual mode local operation is possible. The manual mode will be pre-defined if it´s locked by the control system or the operator in front of the device. The control system receives continuously the status of the module by a digital signal.
The SAM is equipped with a high number of I/O signals and it´s suitable for

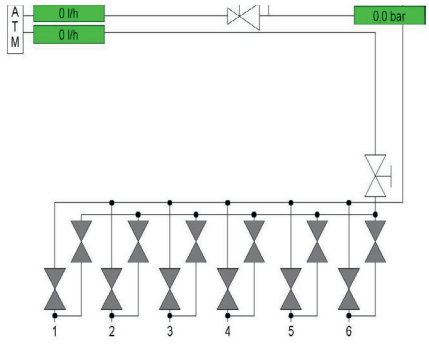
- integration in new plants
- integration in already existing analyzer systems, which should be upgraded to Profibus DP communication
- integration of analyzers with no Profibus DP interface without additional control modules



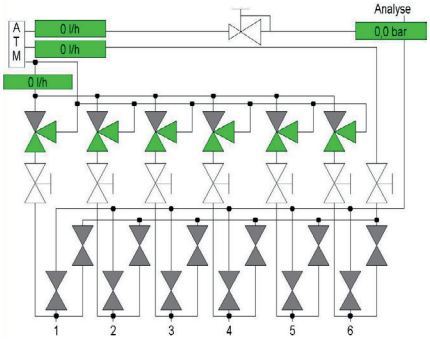
CGS ANALYSEN-, MESS- UND REGELTECHNIK GMBH
Keltenstraße 3
D-85095 Denkendorf
Tel.: +49 8466 / 9415 - 0
Fax: +49 8466 / 9415 - 49
sales@cgs-company.de
www.cgs-company.de

## Gas switching

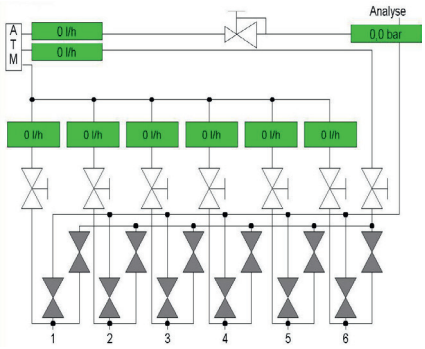
The gas switching modules slightly differs in loading and filling systems.




Without continuous purging of gas paths

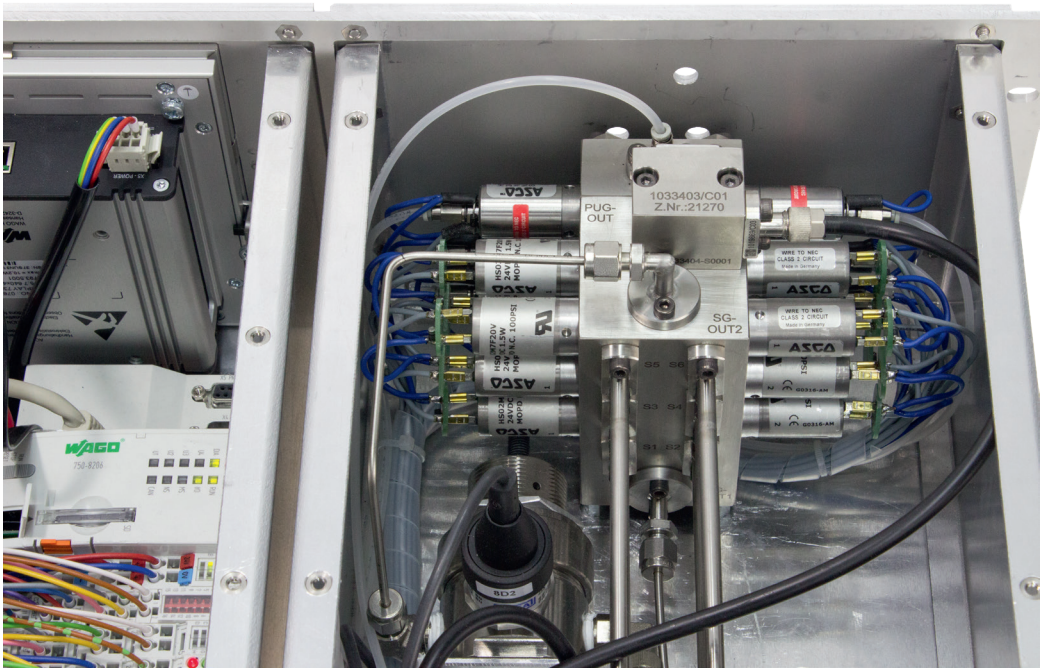



With continuous purging of gas paths;
With one flow meter for all sample gases;
The Bypass flow will be adjusted by switching of the 3/2-way valves to the flow meter.




With continuous purging of gas paths;
With flow meter per sample gas for continuous display of the Bypass flow.

All variations can be realized with the new Software.

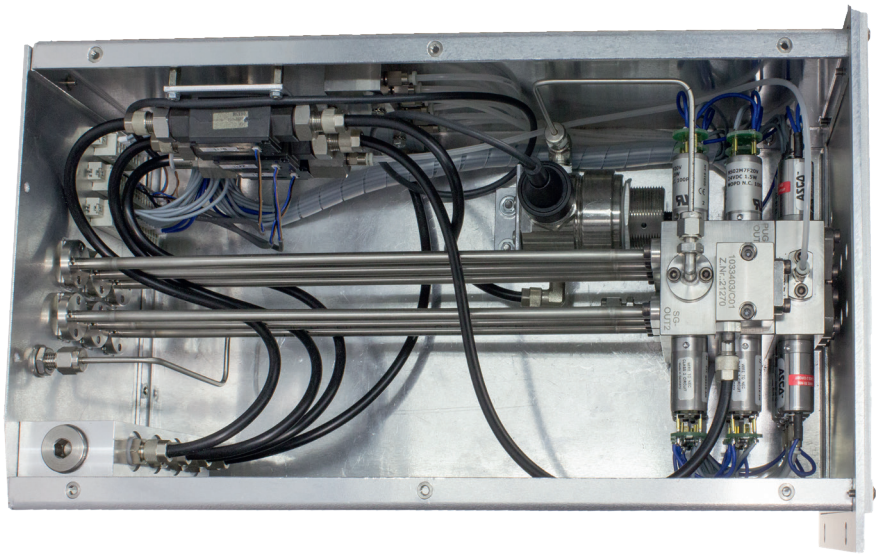



The optimized valve block has due to its new design no death volume. This provides a very fast response time of the analyzer system and minimizes the gas consumption, which is needed for purging the sample lines and measurement. Therefore the measurements for truck loading or cylinder filling can be done without a time lag. The sample switching is currently tested for 6.0 quality.



CGS ANALYSEN-, MESS- UND REGELTECHNIK GMBH
Keltenstraße 3
D-85095 Denkendorf
Tel.: +49 8466 / 9415 - 0
Fax: +49 8466 / 9415 - 49
sales@cgs-company.de
www.cgs-company.de

# SAM-1000_DPS



The integration of the needle valves into solenoid valve block makes the sample switching module more compact. The valve setting is done by an Allen key; this avoids accidentally settings in the gas flow.

## Technical data

| | |
|---|---|
| • Amount of sample inlets: | 6 (standard) |
| • In- and outlet fittings: | 3 mm, 6 mm, 1/8“, 1/4“ |
| • Sample conditioning: | Back pressure regulator 0.1-4 bar |
| • Pressure display: | Pressure transmitter (4-20 mA) |
| • Flow meter: | Electronic |
| | |
| • Control system: | Touch-Web-Panel |
| • Communication: | Profibus DP |
| • Remote control: | Ethernet |
| • Analog inlets: | max. 10 (4-20 mA); 1 internal use; max. 9 free |
| • Digital outlets: | max. 56 (24 VDC); 18 internal use; 6 spare internal; max. 32 free |
| • Digital inlets: | max. 32 free |
| • Virtuelle digital outlets: | 32 free |
| • Virtuelle digital inlets: | 32 free |
| • Configuration sheets: | 20 |
| | |
| • Power supply: | 24 VDC |
| • Capacity: | max. 80 W |
| • Fuse: | 4 A |
| • Ambient temperature: | 5-40°C |
| | |
| • Protection class: | IP20 |
| | |
| • Dimensions | |
| • Height: | 4 HE |
| • Width: | 19“ |
| • Depth: | 470 mm (with connectors) |
| • Weight: | ca. 22 kg |



CGS ANALYSEN-, MESS- UND REGELTECHNIK GMBH
Keltenstraße 3
D-85095 Denkendorf
Tel.: +49 8466 / 9415 - 0
Fax: +49 8466 / 9415 - 49
sales@cgs-company.de
www.cgs-company.de