

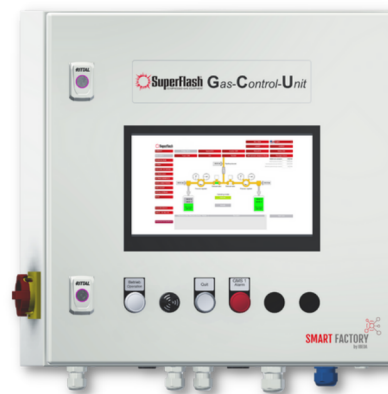
Gas Manifold Systems

Gas Control Unit: GCU

Gas Control Unit for controlling and monitoring of gas manifold systems

Highlights

- Reduces process costs
- Reduces cylinder inventories and rental costs with electronic inventory notifications
- Real-time alerts sent via email
- Continuous monitoring of lines prevents gas loss due to leakage and increases safety
- Electronic monitoring of pressure regulators prevents gas loss due to venting
- Can be RETROFITTED to existing manifolds
- Maintenance reminders
- Monitor and Control via web
- Provides statistical analysis via MQTT and OPC-UA
- Record pressure information
- Optimization of regenerated gas resources



Use in explosive areas:

- The GCU must always be installed outside the potentially explosive area.
- Alarm devices (pressure transmitters) installed within a potentially explosive atmosphere must be controlled via an ATEX-approved switch amplifier.
- When ordering, the number of gas manifold systems that are operated in the explosion protection area must be supplied.
- The appropriate numbers of switch amplifiers are integrated into the GCU based on a number of manifold systems.

Technical Data:

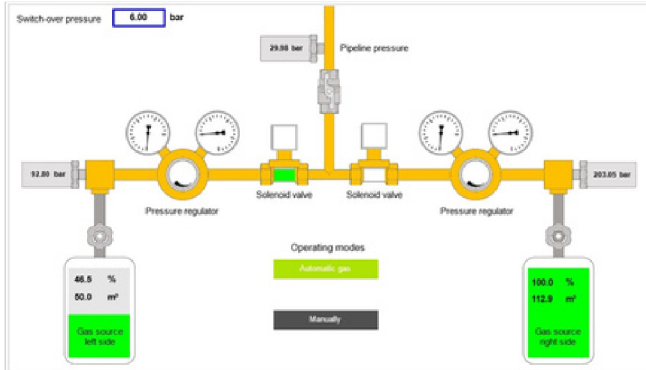
| Model: | GCU-1 | GCU-2 | GCU-3 | GCU-4 | GCU-5 | GCU-5 |
|--|------------------------|-------|-------|-----------------|-----------------|-------|
| Number of connectable gas manifold systems | 1 | 2 | 3 | 4 | 5 | 5 |
| Size [LxWxH mm] | 535 x 535 x 223 | | | 635 x 635 x 263 | 635 x 835 x 313 | |
| Voltage: | 110 – 230 V/50 – 60 Hz | | | | | |
| Max power input: | 1,3 A | | | | | |
| Safety class: | IP55 | | | | | |
| Analogue inputs 4-20mA: | 3 | 6 | 9 | 12 | 15 | 18 |
| Digital outputs 24 V/DC max 500 mA/outlet: | 2 | 4 | 6 | 8 | 10 | 12 |

Further versions upon request.

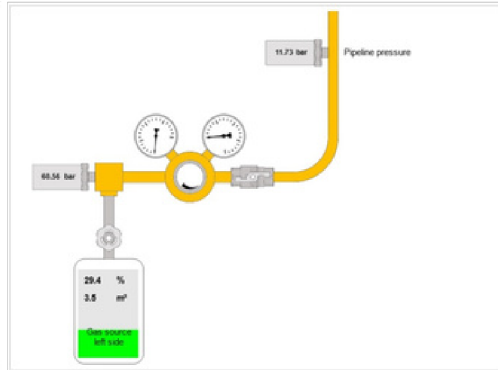
Gas manifold systems

Type: GCU

Picture:
Electrically controlled auto-change gas manifold system



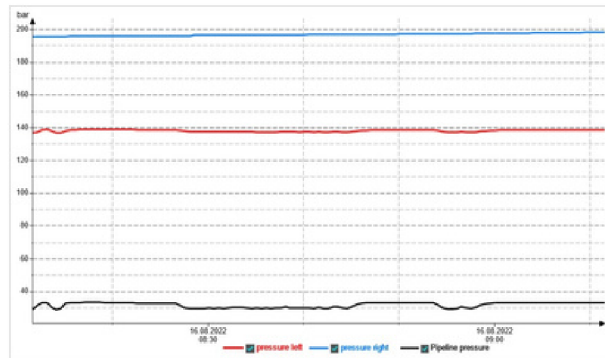
Picture:
Single-sided gas manifold system



Picture
Overview of all connected gas manifold systems

| Location | Manifold-type | Description | Pressure / Fill level Left side | Pressure / Fill level Right side | Active side | Operating mode | Pipeline pressure | Switch-over-pressure | Alarm |
|--|---------------------------------|---------------------|------------------------------------|-------------------------------------|-------------|----------------|-------------------|----------------------|-------|
| 53577 Neustadt Bahnhofstraße 27 Gaslager | auto-change manifold | Test gas N2He | 13.9 bar 27.8 bar 100.0 % | 190.0 bar 190.0 bar 100.0 % | left | automatic gas | 24.6 bar | 26.0 bar | ○ |
| 53577 Neustadt Bahnhofstraße 27 Gaslager | auto-change manifold | Oxygen (O2) | 16.5 bar 325.2 bar 100.0 % | 8.7 bar 19.2 bar 100.0 % | right | automatic gas | 12.2 bar | 8.0 bar | ○ |
| 53577 Neustadt Bahnhofstraße 27 Gaslager | single sided manifold (left) | Acetylene (C2H2) | 18.3 bar 4.4 bar 100.0 % | | | | 2.8 bar | | ○ |
| 53577 Neustadt Bahnhofstraße 27 Gaslager | manual manifold | Nitrogen (N2) | 12.5 bar 291.6 bar 100.0 % | 13.0 bar 340.0 bar 100.0 % | | | 5.3 bar | | ○ |
| 53577 Neustadt Bahnhofstraße 27 Gaslager | single sided manifold (left) | Methane (CH4) | 6.6 bar 16.6 bar 100.0 % | | | | 11.2 bar | | ○ |
| 53577 Neustadt Bahnhofstraße 27 Gaslager | single sided manifold (left) | Propane (C3H8) | 9.3 bar | | | | 6.4 bar | | ○ |

Picture:
Trend-chart of a gas manifold system



Certification/ Technical Standards/ Rules

TRBS German Technical rules for operation safety, DVS German Association for Welding, Cutting and Allied Processes, DGUV German Employer's liability insurance association rules and regulations.

Standards/ Approvals

Standards/ Approvals

Company certified according to ISO 9001:2000,
CE-marking according to: Directive 2014/35/EU

(Subject to change without notice)