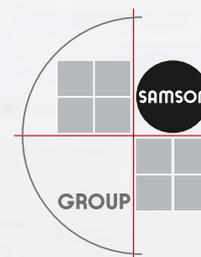


# Products for Cryogenic Applications



# Designed to keep cool

## Cryogenic plants: air separation

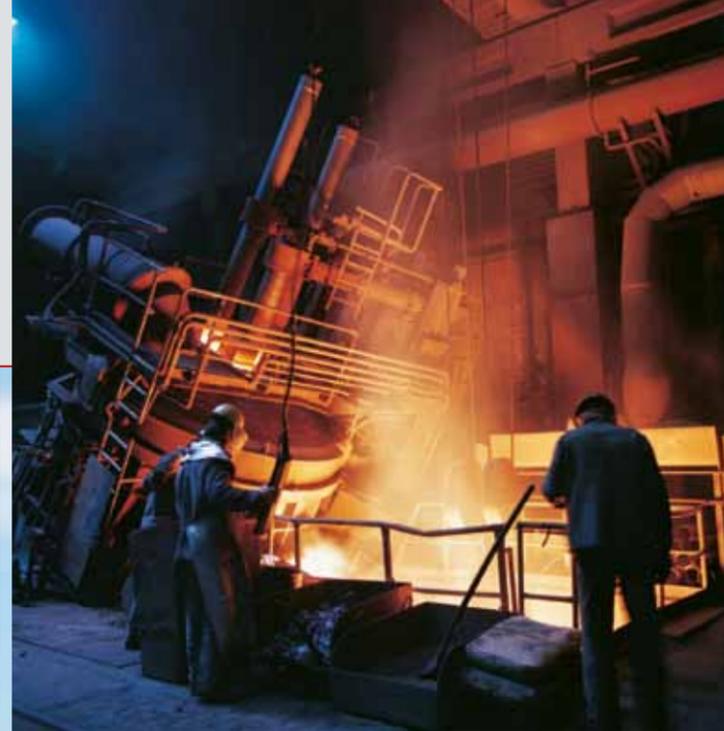
Industry, medicine, supply engineering or research: the consumption and fields of application of industrial gases vary immensely.

Consequently, the most important factor for a successful gas supplier is the location of the production site, either as on-site gas generation or a central plant with a pipeline network. This flexibility and the strict technical regulations require constructions that exceed the limits of standard products. As a result, the SAMSON product range includes cryogenic valves, pressure regulators and level meters developed specifically for these areas of application.

For example, temperatures as low as  $-196\text{ }^{\circ}\text{C}$  are typical in cold boxes used for cryogenic air separation. Huge demands are placed on valve materials, sealing ability and preventing the valves from icing up.



Areas of application:  
research in a cryogenic wind tunnel



Oxygen for steel  
production



Seat-plug trim



### Type 3246 and Type 3248 Cryogenic Valves

The cryogenic valves provide the following advantages:

- Any mounting position possible
- Globe-style or angle-style valve bodies
- Overall height and end connections according to customer specifications
- DIN or ANSI versions
- Bellows seal to prevent heat conduction in the valve space and the valve stem from freezing up
- Backup packing
- Valve body made of cold-resisting stainless steel or aluminum
- Seat-plug trim can be replaced without disassembling the valve
- Easy-to-use seat tool
- Transport caps to protect the cover flange when disassembled



# Gas at the right time and place



Self-operated regulators maintain the right pressure



Transport: taking no risks



Safety and quality are paramount for industrial gas suppliers. They rely on state-of-the-art technology when transporting liquefied industrial gases by road and storing them at their customers'. The difficult operating conditions at pressures up to 40 bar and temperatures as low as -196 °C make the use of special control valves necessary.

The self-operated Type 2357 Pressure Regulators easily meet the requirements in the distribution of cryogenic gases.

The reliable functioning of the regulators at all times – whether they are operated at full or part capacity – is decisive in the competitiveness of a plant. Surfaces can be electropolished to meet highest purity requirements.



Stainless steel body of the pressure build-up regulator



Soft-seated plug with bellows



**Type 2357-2 Excess Pressure Valve**

- Used as economizer
- Additional non-return unit
- PN 50 version typetested by TÜV
- Integrated strainer



**Type 2357-1 Pressure Build-up Regulator**

- Fail-safe function
- Can also be used as pressure reducing valve
- Version for high-purity gas service (Type 2357-6 with wetted parts made of stainless steel)
- Integrated strainer



**Type 2357-3 Pressure Build-up Regulator**

- Fail-safe function
- Unites the functions of excess pressure valve and pressure build-up regulator
- Additional non-return unit
- K<sub>VS</sub> 3.2
- Integrated strainer



# Always up-to-date

## Tank level: remote control and monitoring



Reliable tank data and expert logistics ensure an optimal supply

The first step to minimizing transport costs is to make distribution more efficient. A tank management system helps save time and money. Tank levels and pressures are monitored remotely from a central control station. This ensures supply-oriented and on-time delivery as well as continuous safety monitoring.

The Media 6 meter with its associated telemetry system sends data collected at regular intervals to the supply scheduling system. Besides the tank level, limit values and faults are indicated.

The modular design of the Media series allows the attachment of valve blocks, operating pressure gauges and limit switches as required.



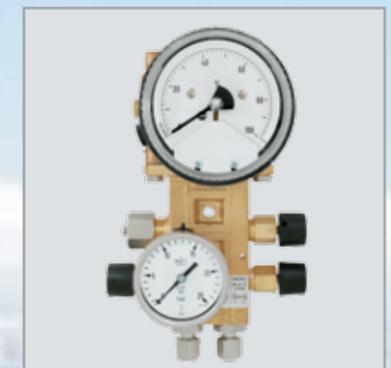
### Media 6 Differential Pressure Meter

- Microprocessor controlled
- Digital display down to  $-40\text{ }^{\circ}\text{C}$  with 100 % bar graph as well as alarm and warning markers
- Saves up to four different gas types and tank geometries
- Switches to select the gas type
- Measuring ranges up to 3600 mbar
- Adjustment of measuring span 1:5
- Keys for zero and span adjustment
- Two software limit switches



### Media 5 Differential Pressure Meter

- 160 mm indicator diameter
- Scale markings according to customer specifications
- Measuring ranges up to 3600 mbar
- Adjustment of measuring span 1:2
- Zero adjustment at the front
- Can be equipped with three limit switches
- Modular design



### Media 05 Differential Pressure Meter

- 100 mm indicator diameter
- Scales markings according to customer specifications
- Measuring ranges up to 3600 mbar
- Adjustment of measuring span 1:1.6
- Zero adjustment at the front
- Can be equipped with two limit switches
- Modular design





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