

NON-RETURN VALVE ULTRA 32

Special version model ULTRA 30



WITT non-return valves for reliable protection against dangerous reverse gas flow.

Flow-optimised valve system causes very low pressure drop at minimal noise emission.

Every non-return valve 100% tested.

ULTRA 32 is based on ULTRA 30 and is customized according to the requirements of the customer - ideal for special requirements. A modular system which allows flexible material combinations for housing and sealings.

Combination possibilities

- housing available in brass, stainless steel or aluminium
- sealings of NBR, CR, FKM, EPDM, FFKM for example
- with or without dirt filter in gas inlet

Benefits

- precisely tailored design for special requirements. For example corrosive environments, acetylene, ultra-lightweight construction, temperatures above 70 °C / 158 °F
- a spring loaded non-return valve prevents back feeding of gases which could lead to unwanted gas mixtures
- low pressure drop – using complex valve assembly with low opening pressures (approx. 5 mbar)
- stainless steel filter (100 µm) in the gas inlet protects the non-return valve against dirt contamination, extending the service life
- flow-optimised valve system for:
 - ultra low pressure drop
 - minimal noise emission
- no leaks – using of a spring loaded valve assembly with elastomer sealing
- in accordance to DIN EN ISO 5175-2
- diverse applications – useful for many technical gases

- reduce installation costs – the spring loaded valve is not affected by gravity and may be installed in any orientation

Operation / Usage

- non-return valves are used to protect equipment and pipelines against dangerous reverse gas flow. Use is possible for applications according to EN 746-2
- WITT non-return valves may be mounted in any position / orientation

Maintenance

- annual testing of the non-return valve and body leak tightness is recommended
- WITT is happy to supply special test equipment
- non-return valves are only to be serviced by the manufacturer

Approvals

Company certified according to ISO 9001 and PED 2014/68/EU Module H

CE-marked according to:
- PED 2014/68/EU

Designed for Oxygen Service in accordance with EIGA 13/20 and CGA G-4.4: Oxygen Pipeline and Piping Systems

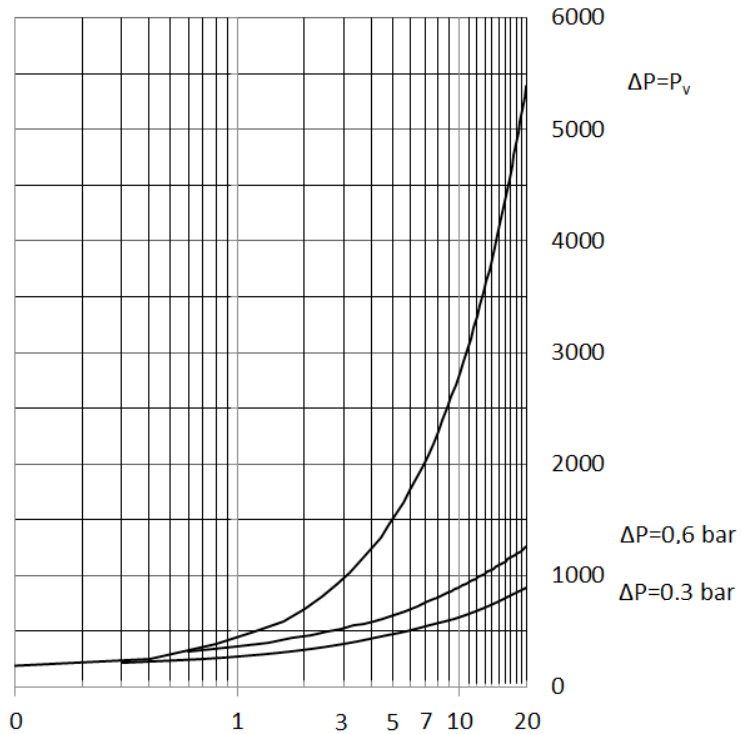
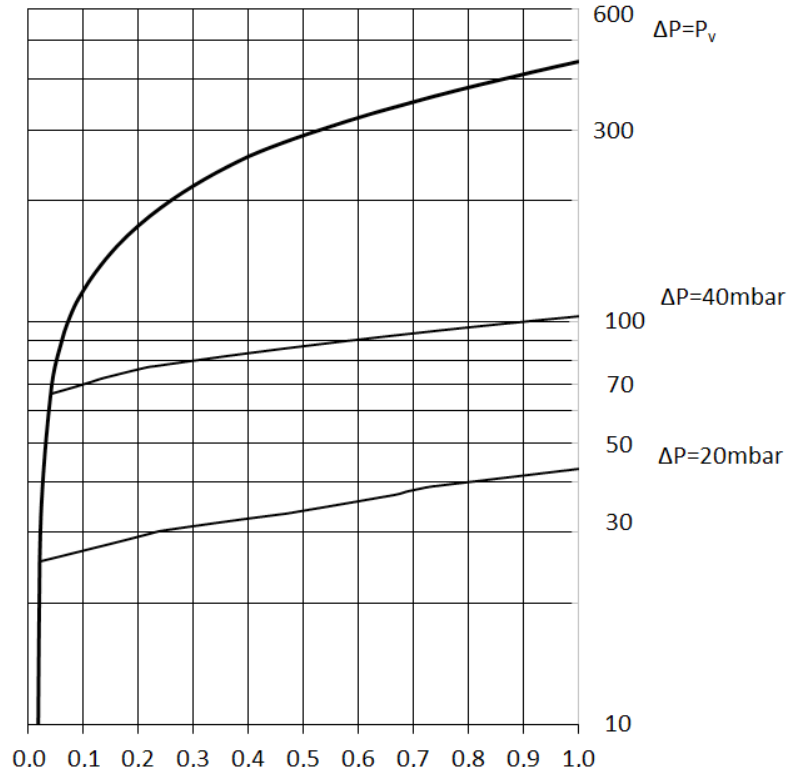
Cleaned for Oxygen Service in accordance with EIGA 33/18 and CGA G-4.1: Cleaning of Equipment for Oxygen Service

NON-RETURN VALVE ULTRA 32



ULTRA 32
Flow without filter
approx. 10% higher

Flow diagram for air (20 °C / 68 °F)



Conversion factors:

| | |
|-------------|--------|
| Natural gas | x 1.25 |
| Ethylene | x 1.02 |
| Methane | x 1.33 |
| Propane | x 0.80 |
| Oxygen | x 0.95 |
| Town gas | x 1.54 |
| Hydrogen | x 3.75 |

————— Inlet pressure: P_v [bar] Opening pressure: 5 mbar —————

↑ Normal volume flow [Nm³/h]
(1013 mbar / 14.7 psi, 0 °C / 32 °F)

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(1013 mbar / 14.7 psi, 0 °C / 32 °F)

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Examples for material combinations housing / elastomers

This overview shows only some possible material combinations and connections.
 The modular system of ULTRA 32 offers many other diverse materials and combination possibilities.
 Tell us your requirements and you will receive your individual non-return valve, precisely tailored to your application.

| Model | Max. working pressure | [bar] | Filter 100 µm | Material | | | Connection [inch] | Order-No. | |
|----------|---|-------|------------------|----------|-------|--|----------------------|--------------------|-----------------|
| | | | | Seals | | Housing | | | Valve |
| | | | | O-Ring | Valve | | | | |
| ULTRA 32 | Acetylene (A) | 1.5 | ✓ | EPDM | EPDM | Brass 2.0401 CuZn39Pb3 | PEEK | G 1.1/2 | upon request |
| | Argon (Ar), Helium (He), Hydrogen (H), Nitrogen (N2), Carbon Monoxide (CO), Oxygen (O), Compressed air (D) | 20.0 | | | | | | | |
| | Carbon dioxide (CO2) | 16.0 | ✓ | NBR | CR | Stainless steel 1.4305 X8 CrNiS 18-9 AISI 303 | PEEK | KF DN25 G 1.1/2 | 033-010 |
| | Town gas (C), Ethylene (E), Natural gas (M), Hydrogen (H), Nitrogen (N2), Carbon Monoxide (CO), Oxygen (O), Compressed air (D) | 20.0 | | | | | | | |

Other gases and connections available upon request
 Operating temperatures are depending to pressure, gas and seal material. Please do not hesitate to contact us.