## WITT-GASETECHNIK GMBH & COKG

### **NON-RETURN VALVES**

www.wittgas.com



# WITT non-return valves for reliable protection against dangerous reverse gas flow. Every non-return valve 100% tested.

#### Benefits

- a spring loaded non-return valve prevents back feeding of gases which could lead to unwanted gas mixtures
- low pressure drops using complex valve assembly with low opening pressures (approx. 4 mbar)
- brass filter protects the non-return valve against flashbacks, extending the service life
- 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

- they may also used as a safety device to protect against flashbacks (proved in accordance to EN 730) from natural gas with air
- the maximum ambient / working temperature is 70  $^{\circ}\text{C}$  / 158  $^{\circ}\text{F}$

### Maintenance

- annual testing of the non-return valve, body leak tightness and flow capacity 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 9001:2000, ISO 14001 and PED 97/23/EG Module H CE-marked according to: - PED 97/23/EC

Model	Max. working pressure [bar]	Material	Weight [9]	Length [mm]	Connection [Zoll]	Order-No.
70	Town gas (C), Natural gas (M) and LPG (P), Hydrogen (H), 16 Oxygen (O), Compressed air (D) non-flammable gases	Brass Elastomer Bronze	1.255 1.414 1.590 1.679	137 146 149 160	G 3/4 G 1 G 1.1/4 G 1.1/2	123.009 123.012 123.014 123.015
70U	Flashback resistant according to EN 730 10 combustion of Natural gas with air		1.256 1.398 1.558 1.679	137 146 149 160	G 3/4 G 1 G 1.1/4 G 1.1/2	123.016 123.018 123.056 123.045

Other connections available on request



manufactures mixing, metering and control equipment as well as analysing systems and safety equipment for all common gases

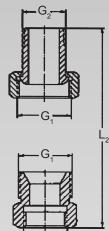
**Technical Data** 

## WITT-GASETECHNIK GMBH & CO KG



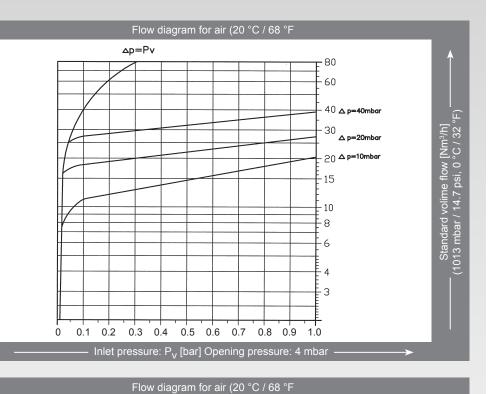
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## Cone connection for installation of pipeline Model 70/70U

Connection EN 560 G <sub>1</sub> [inch)	Connection EN 560 G <sub>2</sub> [inch)	Installation dimension with non-return valve L <sub>2</sub> [mm]	Order-No.
G 3/4 RH	G 1/2 RH	186	043.000000
G 1 RH	G 3/4 RH	202	043.000100
G 1.1/4 RH	G 1 RH	208	043.000200
G 1.1/2 RH	G 1.1/4 RH	224	043.000300



Conversion factors:					
Butane	x 0.68				
Natural Gas	x 1.25				
Methane	x 1.33				
Propane	x 0.80				
Oxygen	x 0.95				
Town gas	x 1.54				
Hydrogen	x 3.75				

2000 1500 Δp=Pv - 1000 Standard volime flow [Nm<sup>3</sup>/h] 1013 mbar / 14.7 psi, 0 °C / 32 °F) 600 **∆p=600mba** 400**△ p=300mba**r 300 200 -150 K9 subject to change -100 - 80 - 60 - 50 0.2 0.3 0.6 1.0 1.5 2 3 4 6 8 10 16 Inlet pressure: P<sub>v</sub> [bar] Opening pressure: 4 mbar

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### **GRS 1**