# F53N-ES / F53N/H-ES
# RF53N-ES / RF53N/H-ES


## WITT Flashback Arrestors for reliable protection against dangerous reverse gas flow and flashbacks according to EN 730-1 / ISO 5175. Every Arrestor 100% tested.

BAM Certified and under surveillance
Certification-No.: BAM/ZBA/003/04

### The best Flashback Arrestors in the world

### Benefits

- a large surface area flame arrestor FA of stainless steel construction extinguishes any dangerous flashback entering the device in any direction
- a temperature sensitive cut-off valve TV extinguishes sustained flashbacks long before the internal temperature of the arrestors reaches a dangerous level
- a spring loaded non-return valve NV prevents slow or sudden reverse gas flow forming explosive mixtures in the gas supply
- a filter at the gas inlet protects the arrestor against dirt contamination, extending the service life (RF53N-ES)

### Operation / Usage

- Flashback Arrestors are used to protect gas cylinders and pipeline outlet points (hoses and any equipment) against dangerous reverse gas flow (RF53N-ES) and flashbacks
- without non-return valve (F53N-ES) for lower working pressures i.e. before and after analysers
- ideal for use with corrosive gases in the chemical industry, process technology or in the laboratory area
- WITT Flashback Arrestors may be mounted in any position / orientation
- the maximum ambient/working temperature is 70 °C / 158 °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
- Flashback Arrestors are only to be serviced by the manufacturer. The dirt filter may be replaced by competent staff

### Approvals

Company certified according to ISO 9001

Other connections available on request

| | Model ...-ES | | | |
|---|---|---|---|---|
| **Safety device** | **F53N** | **F53N/H** | **RF53N** | **RF53N/H** |
| **Flame arrestor FA** | X | | X | |
| **Non-return valve NV** | – | | X | |
| **Temperature sensitive cut-off valve TV** | X | | X | |
| **Weight [g]** | 181 | | 195 | |
| **Approval BAM** | BAM/ZBA/003/04 | | | |
| **Material** | Housing – Stainless steel; Flame arrestor – Stainless steel; Seal – Elastomer | | | |
| **Gases** | max. working pressure [bar] | | | |
| Acetylene (A) | – | – | 1.5 | – |
| Town gas (C) | 5.0 | – | 5.0 | – |
| Natural gas (M) | 5.0 | 12.0 | 5.0 | 12.0 |
| LPG (P) | 5.0 | 8.0 | 5.0 | 8.0 |
| Hydrogen (H) | 3.0 | 9.0 | 3.0 | 10.0 |
| Ethylene (E) | – | 9.0 | – | 9.0 |
| **Connections** | Order-No. | | | |
| 1/4“ NPT F | 145-059 | 145-106 | 145-001 | 145-107 |
| 3/8“ NPT F | – | – | 145-031 | 145-121 |
| **Gases** | max. working pressure [bar] | | | |
| Oxygen (O) | 30,0 | – | 30,0 | – |
| Compressed air (D) | 30,0 | – | 30,0 | – |
| **Connections** | Order-No. | | | |
| 1/4“ NPT F | 145-157 | – | 145-116 | – |
| 3/8“ NPT F | – | – | 145-024 | – |

Product Information / Technical Data

A01/J2 subject to change

# SAFETY DEVICES

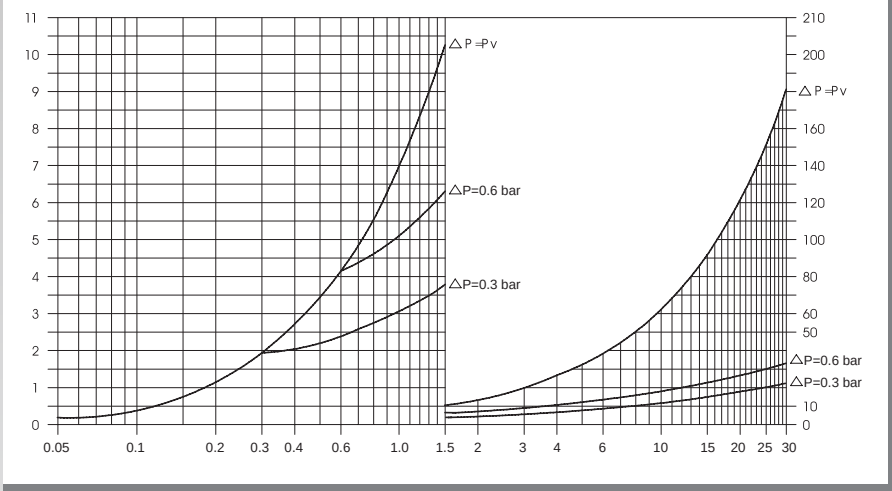
## RF53N-ES

145-001
145-031
145-116
145-024

Conversion factors:

| | |
|---|---|
| Acetylene | x 1.04 |
| 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 |

Flow diagram for air (20 °C / 68 °F)




## F53N-ES

145-059
145-157

Conversion factors:

| | |
|---|---|
| Acetylene | x 1.04 |
| Butane | x 0.68 |
| Natural gas | x 1.25 |
| Methane | x 1.33 |
| Propane | x 0.80 |
| Oxygen | x 0.95 |
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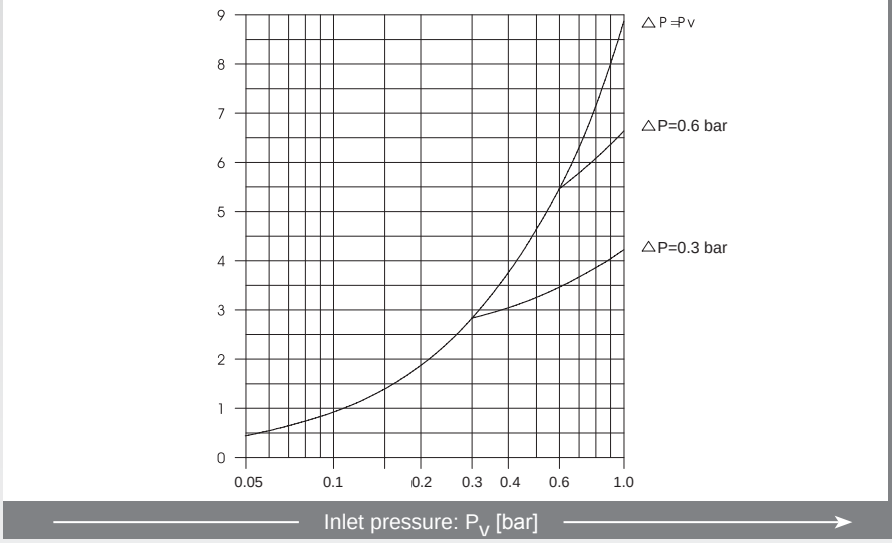
Flow diagram for air (20 °C / 68 °F)



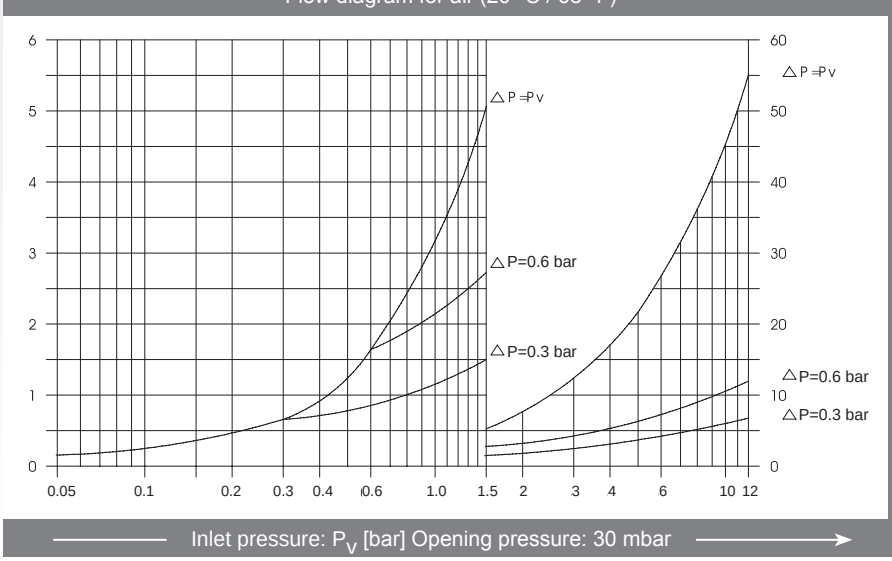

## RF53N/H-ES

145-107
145-121

Conversion factors:

| | |
|---|---|
| Acetylene | x 1.04 |
| 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 |

Flow diagram for air (20 °C / 68 °F)




Technical Data

A01/J2 subject to change