

## HUPF Series

GAS PRESSURE REGULATOR WITH  
INCORPORATED FILTER

### SPECIFICATION SHEET



## DESCRIPTION

Spring-loaded regulator with inlet pressure compensation and zero shut-off.

The outlet pressure is kept constant with changing gas flow as a function of the spring setting. The zero shut-off prevents the outlet pressure from increasing when there is no gas flow through the regulator.

## APPLICATION

To regulate gas and air inlet pressure for gas burners, including mixed and combined systems and in industrial distribution systems.

Applicable types of fuel:

- manufactured gases (town gas)
- natural gases (group H - methane)
- liquefied petroleum gas (LPG)
- non-aggressive gases
- air

The gas pressure regulators comply with the requirements of EN88-1, class B, group 2.

These gas pressure regulators are available in two versions; with or without incorporated filter, see product range page 2.

OS Number	Part Number	Description
HUPF015B110	FMF311500003LC	1/2" threaded
HUPF020B110	FMF311510003LC	3/4" threaded
HUPF025B110	FMF311520003LC	1" threaded
HUPF032B110	FMF311530003LA	1-1/4" threaded
HUPF040B110	FMF311540003LA	1-1/2" threaded
HUPF050B110	FMF311550003LA	2" threaded
HUPF025B310	FMF31152F203LA	DN 25 flanged
HUPF032B310	FMF31153F203LA	DN 32 flanged
HUPF040B310	FMF31154F203LA	DN 40 flanged
HUPF050B310	FMF31155F203LA	DN 50 flanged
HUPF065B310	FMF31156F103LA	DN 65 flanged
HUPF080B310	FMF31157F103LA	DN 80 flanged
HUPF100B310	FMF31158F103LA	DN 100 flanged

Overview of OS numbers and their corresponding part numbers.

## SPECIFICATION

### Product range

Model **HUPF** (pipe sizes 1/2" up to DN 100) **with** filter.

### Dimensions

See dimensional drawing and table on page 4.

### Pipe size

1/2" up to 2" inlet and outlet internal pipe thread according ISO 7-1.

DN40, DN50, DN65, DN80 and DN100 inlet and outlet flange connections according to ISO 7005 EN 1092-4

### Connections

Inlet pressure tap connections.

### Capacity

See Capacity curves HUPF Series on page 6.

### Maximum working pressure

500 mbar

NOTE: minimum inlet pressure range:

desired outlet pressure +2.5 mbar up to 1000 mbar.

### Outlet pressure range

5 to 300 mbar

The appropriate outlet pressure range is obtained by the use of different springs.

NOTE: The regulators are supplied standard with a white spring - see "Spring setting range" below

### Closing pressure

Conform EN 88 specification (i.e. zero shut-off)

### Torsion and bending stress

Pipe connections meet group 2, according to EN 88 requirements.

### Set point accuracy

According to EN88-1, class A group 2.

### Max. allowed pressure

Up to 1 bar without body damages

### Ambient temperature range

-15 °C....+60 °C

### Material of pressure receiving parts

Elastomer EN549

### Sealing elements

Hydrocarbon resistant NBR rubber type NBR 70

### Safety diaphragm

An external breather/outlet pipe is not necessary as the incorporated safety diaphragm ensures that, in the event of breakage of the operating diaphragm. No gas leakage into the environment of over 30dm<sup>3</sup>/h is possible. The above in compliance with para. 3.3.2. of UNI EN 88 specification.

### Body material

Aluminium alloy die cast EN AB 46100, EN AB43100

### Internal parts

AISI 304/Delrin

### Filter

Filter element Synthetic fiber DVGW G260/1

### Filtering grade

= 50µ

### Standard and Approvals

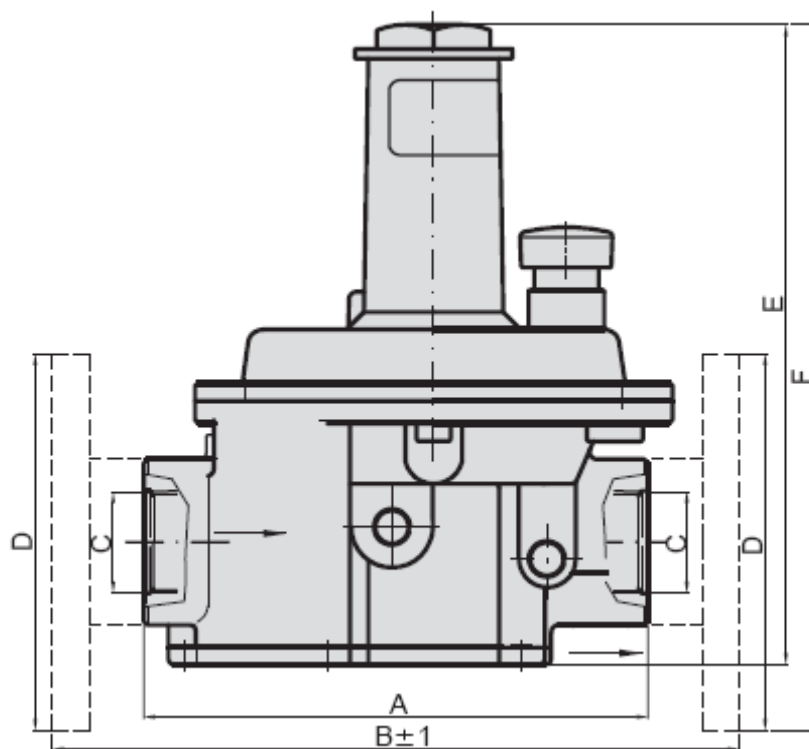
The HUPF series gas pressure regulator with incorporated filter conform to the following EC-directives:

- Gas Appliance Directive (90/396/EEC)
- PIN: 0694BQ0836 made by Fiorentini Minireg S.p.A.

### Adjustment spring range

Current models					
Model		HUPF015B110 HUPF020B110 HUPF025B110	HUPF032B110 HUPF040B110	HUPF050B110 HUPF050B310	HUPF065B310 HUPF080B310 HUPF100B310
Range (mbar) and colour		Spring code			
5 - 13	Green	HRSP150M1	HRSP153M1	HRSP155M1	HRSP156M1
7 - 20	Red	HRSP150M2	HRSP153M2	HRSP155M2	HRSP156M2
10 - 30	White	HRSP150M3	HRSP153M3	HRSP155M3	HRSP156M3
25 - 70	Yellow	HRSP150M4	HRSP153M4	HRSP155M4	HRSP156M4
65 - 150	Violet	HRSP150M7	HRSP153M7	HRSP155M7	HRSP156M7
140 - 300	Orange	HRSP150M8	HRSP153M8	HRSP155M8	HRSP156M8

Old Models		
Model	HUPF065B310 HUPF080B310	HUPF100B310
Spring code	Range (mbar)	
HRSP156M1	7 - 17	3 - 9
HRSP156M2	10 - 25	5 - 13
HRSP156M3	12 - 33	7 - 20
HRSP156M4	25 - 75	10 - 40
HRSP156M7	65 - 160	35 - 120
HRSP156M8	140 - 300	100 - 240



Governors with built in filter

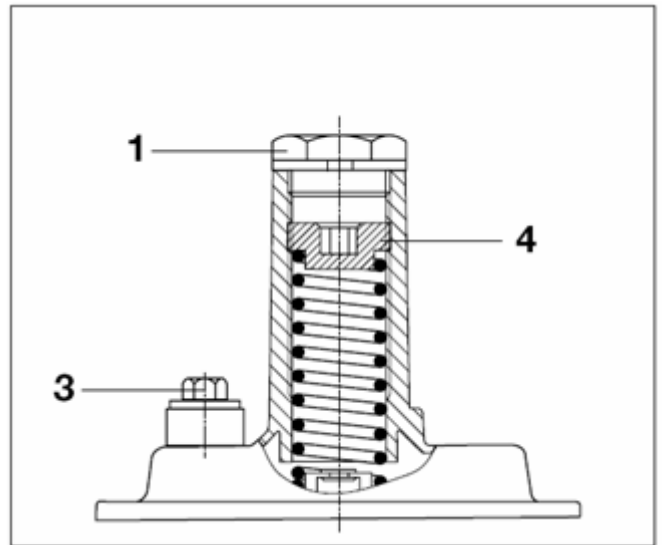
Model	Connection (inch)	Max. operating pressure (mbar)	Overall dimensions (mm)					
			A	B	C	D	E	F
HUPF015B110	1/2"	500	138		1/2"		175	
HUPF020B110	3/4"	500	134		3/4"		175	
HUPF025B110	1"	500	134		1"		175	
HUPF032B110	1"1/4	500	194		1"1/4		255	
HUPF040B110	1"1/2	500	194		1"1/2		255	
HUPF050B110	2"	500	236		2"		316	
HUPF050B310	DN50	500		352		DN50		349
HUPF065B310	DN65	500		350		DN65		427
HUPF080B310	DN80	500		350		DN80		434
HUPF100B310	DN100	500		415		DN100		502

**Position of pressure adjustment screws**

1. Upper cap (1).
2. Pressure adjustment set screw (4). Turn this set screw clockwise to increase the outlet pressure, counter-clockwise to decrease it.

**Replacing spring**

1. Remove the upper-cap (1) of the pressure regulator.
2. On fully unscrew the ring nut (4)
3. Remove old and replace new spring.
4. Screw the ring-nut (4) back in.
5. Adjust the required outlet pressure.



**Filter and membrane maintenance (HUPF)**

1. Remove the screws at the bottom of the gas regulator and remove the cover.
2. Remove the filter cartridge or membrane and clean the filter housing thoroughly.
3. Replace the old filter or membrane element with the new one.
4. Reassemble the cover, ensuring that the guides inside the cover are properly aligned with the filter cartridge.
5. Tighten the screws, and check for gas leak by performing a leak tightness test.

Membrane Kits		Filter Cartridges	
HUPF model and date code	Part Number	HUPF model and date code	Part Number
<i>HUPF032/040 (before F302555)</i>	KTMB3-0400A	HUPF015/020/025 (current)	KTFL3-2100A
<i>HUPF032/040 (between F302565 and F301816)</i>	KTMB3-1300A	HUPF032/040 (current)	KTFL3-2200A
HUPF032/040 (current)	KTMB3-1800A	HUPF050B (current)	KTFL3-2300A
<i>HUPF050 (before F301805)</i>	KTMB3-0500A	<i>HUPF065B (before F300877) and for HUPF080B (before F300297)</i>	KTFL3-2400A
<i>HUPF050 (between F301815 and F301086)</i>	KTMB3-1400A	HUPF065B/080B/100B (current)	KTFL3-2600A
HUPF050 (current)	KTMB3-1700A	<i>HUPF100 (before F301437)</i>	KTFL3-2500A
<i>HUPF065 (before F300877) and for HUPF080B (before F300297)</i>	KTMB3-1500A	<b>Product Label</b>	
HUPF065/080/100 (current)	KTMB3-1900A		
<i>HUPF100 (before F301437)</i>	KTMB3-1600A		
D is continued HUPF models are printed italic.		Location of Date Code on product label HUPF	
<b>Explanation of date code:</b>			
The date code format that printed on the label is in the format: PL: F3ydddy			
F3 indicates a regulator, yddy are the year (yy) and the day (ddd)			
Example: F301239. This is a HUPF, produced on day 123 in the year 2009			

Capacity curves of HUPF series with regulator in stable position  
 (m<sup>3</sup>/h natural gas at 1013mbar, 15C°)

