

Filter and Regulator

With or Without pressure gauge

DATA SHEET
7700 FRG

The filter and regulator is applied in nearly all pneumatic control circuits for supplying pneumatic control equipment with clean air at a constant pressure.

The inner valve parts have been designed to maintain the pressure at a constant level even at a high flow capacity.

This proven compact unit has the following excellent features :

HIGH FLOW CAPACITY

EXACT PRESSURE CONTROL

QUICK RESPONSE

SIMPLE INSTALLATION



TECHNICAL DATA

Adjustment range

3 different Springs

FRG-7700-4

:0 to 4 bar

FRG-7700-6

:0 to 6 bar (Now Mostly Used)

FRG-7700-10

:0 to 10 bar

Flow capacity (with 7 bar upstream pressure and 1.4bar control pressure)

:35Nm³/hr

Discharge capacity (control pressure 0.35 bar above set-valve)

:0.8Nm³/hr

Adjustment accuracy

:2.0 mbar

Sensitivity

:<0.5mbar

Temperature range

:−50°C + 65°C

Upstream pressure

:Max. 20bar

Consumption at 1.4 bar control pressure

:Max. 8NI/hr

Filter material

:Bronze; 5microns

Inlet & Outlet Sizes

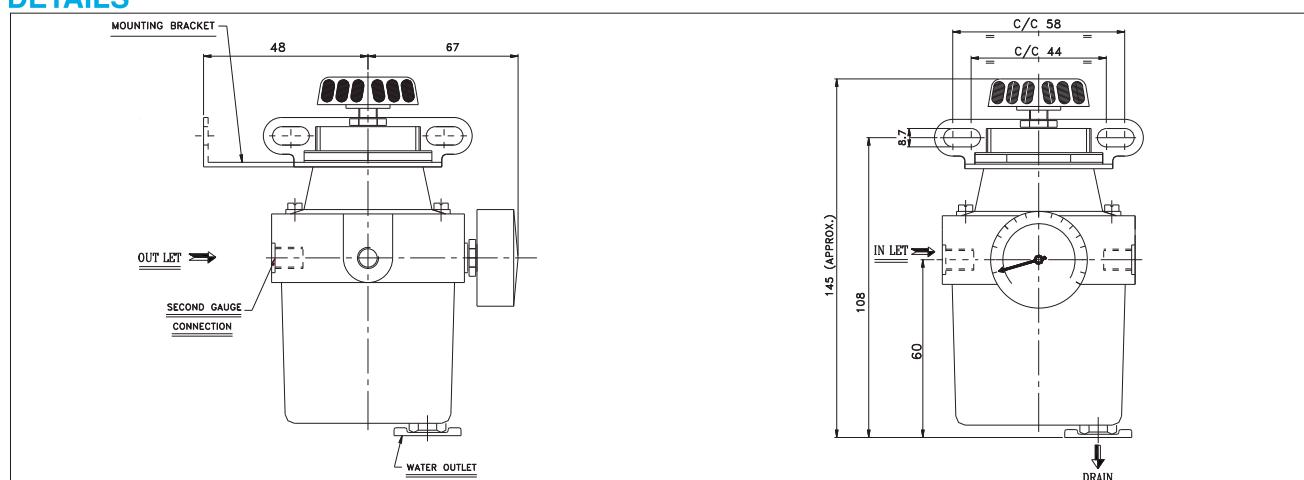
:1/4" BSP/NPT

Pressure gauges supplied

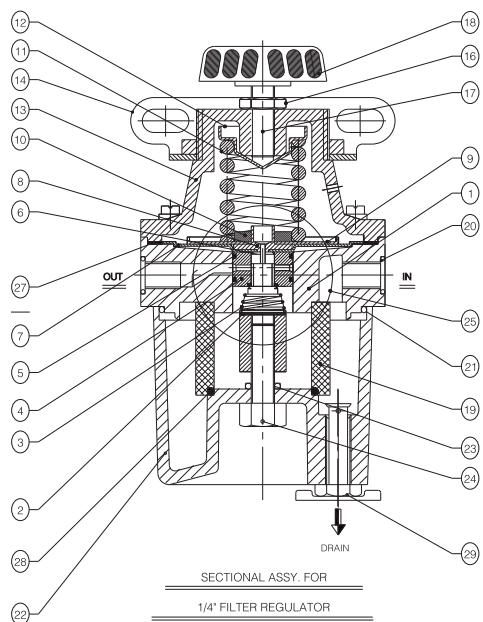
:50mmØ 1/4" BSP 0 to 10 bar.

(outlet side).

DETAILS



OPERATING INSTRUCTIONS



BILL OF MATERIAL

No.	Name	Qty.
1	Body	1
2	Spring rest dish	1
3	Spring	1
4	Piston assy.	1
5	'O' ring	2
6	Spool	1
7	Diaphragm plate	1
8	Seat insert	1
9	Backing plate	1
10	Diaphragm washer	1
11	Set point spring	1
12	Spring retainer	1
13	Bonnet	1
14	Mounting bracket	1
15	Hex. lock nut	1
16	Counter nut	1
17	Adjustment bolt	1
18	Knob assy.	1
19	Filter	1
20	'O' ring	2
21	'O' ring	1
22	Filter casing	1
23	'O' ring	1
24	Filter casing screw	1
25	Gauge	1
26	Filter casing screw	4
27	Diaphragm	1
28	'O' ring	1
29	Drain assy.	1
30	Plug (not shown)	1

Note:

Technical specifications, details & dimensions are subject to change without prior notice.
Dimensions in the table are approximate subject to final confirmation by AVCON.

INSTALLATION

The instrument has 4 connections 1/4" NPT. The air input 'IN' can be mounted at the left or right side. Then the air output 'OUT' is on the opposite right or left side. In the right angle to these connections there are 2 connections 'G' which are internally connected with the air output. Alternatively, according to place and position of installation, a gauge can be mounted.

The filter and regulator can be mounted to a wall by means of an angled bracket (17). If required, it can also be mounted into a front panel, with 2 hexagonal flat nuts (18). The hand wheel can be used for adjustment of pressure setting screw.

OPERATION AND SERVICE

Before attempting maintenance stop air supply and drain the regulation off Air Pressure, to clean the filter, loosen the filter screw (15) and remove the filter casing (1). Then the filter cartridge (4) can be taken off. It can be cleaned with solvents like tetra, naphta, benzine, a.s.o. and should be blown out vigorously with clean air from inside. After each cleaning, examine O-rings (3, 5, 14) and change if necessary. Replace the filter and screw on the filter casing again. The water outlet has to be opened regularly. On continuous operation, the diaphragm has to be checked regularly and replaced if necessary. For this purpose, release adjusting screw (20), loosen casing screws (13) and spring casing (12), take spring plate (11) and spring off. Now the complete diaphragm unit (9) can be taken out and examined respectively replaced. Reassemble instrument in reverse order.

This is bleeding type Regulator and some small air leakage will be seen through bleed hole.

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