

## TECHNICAL SPECIFICATION

### *Regulator – R38*



**Product Description**



**Performance**



**Construction**



**Accessories and Spare Parts**



**How to Order**



**Dimensional Details**

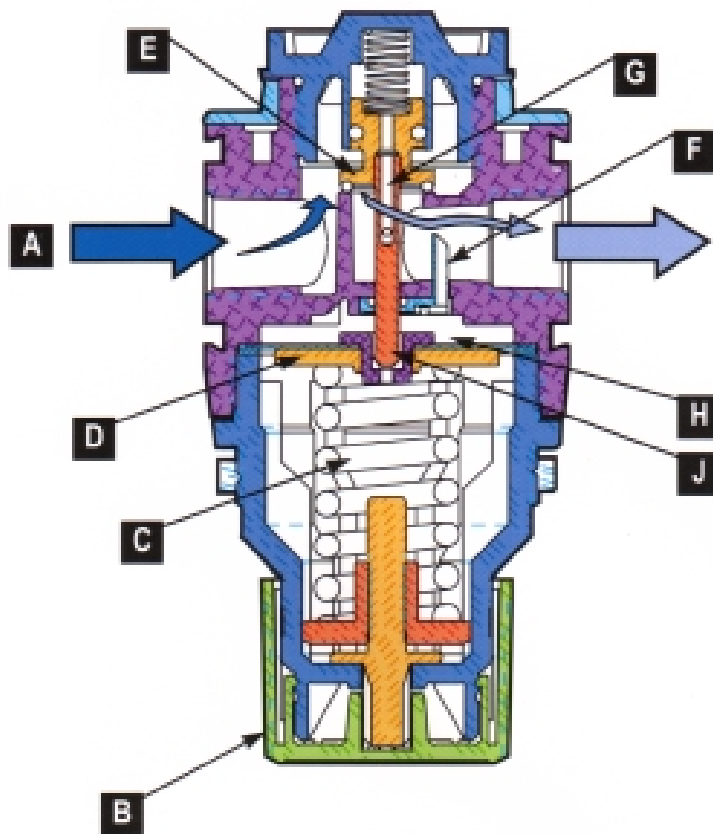


## PRODUCT DESCRIPTION

Wilkerson. R Series Air Regulators are designed with balanced valves for high performance flows and good regulation characteristics in a compact package.

### Features

- Balanced valve design for better performance at higher flows.
- Non-rising knob with snap lock is standard.
- Diaphragm design for optimum sensitivity, response and repeatability.
- Panel nut is standard.
- 2 gauge ports standard.
- Wide range of available spring ranges and port sizes.
- Easy service access to main valve assembly.
- Reverse flow option available.
- Can be installed modular or hard piped.



## Operation

Air flow enters regulator at (A). Turning adjusting knob (B) clockwise [viewed from knob end] compresses the main spring (C), causing diaphragm (D) and main valve (E) to move, allowing flow across valve seat area. Pressure in the downstream area is sensed through the aspirator tube (F) to the area under the diaphragm (H). As downstream pressure rises, it offsets the load of spring (C). The diaphragm (D) and valve (E) move to close valve against its seat, stopping air flow through regulator. Spring pressure (C) and downstream pressure (H) are in balance, at reduced outlet pressure. Any demand downstream, such as opening a valve, will cause the downstream pressure to drop. The main spring (C) will again push open the valve (E), repeating the sequence in a modulating fashion to maintain the downstream pressure setting. In standard relieving models, a rise in downstream pressure above the set pressure will cause the diaphragm (D) to lift off the top of the valve stem (J), thus relieving the excess pressure to atmosphere under the knob (B). When the downstream pressure returns to the set pressure, the diaphragm re-seats on the valve stem, and the system is again in equilibrium.



## PERFORMANCE

Port Size	BSPP-G (ISO228)	3/4, 1
Flow Capacity*	3/4, 1	491 scfm (232 dm <sup>3</sup> /s)
Maximum Operating Temperature	150°F (65,5°C)	
Maximum Supply Pressure	300 psig (20,7 bar)	
Adjusting Range Pressure	0-125 psig (0-8, 6 bar)	
Gauge Port (2 each)	BSPP-G	1/4
Weight	lb (kg)	3.53 (1,6)

\* Inlet pressure 100 psig (6,9 bar). Secondary pressure 90 psid (6,2 bar).



## CONSTRUCTION

Body

Aluminium

Body Cap

ABS

Knob

Polyacetal

Diaphragm Assembly

Nitrile/Zinc

Valve Assembly

Brass/Nitrile

Seals

Nitrile

Springs

Steel



## ACCESSORIES AND SPARE PARTS

### Replacement Bowl Kits

Diaphragm Assembly, Relieving	RRP-96-694
Valve Assembly	RRP-96-696

### Accessories

Bracket, Wall Mount, T-Type with Joiner Set	GPA-96-608
Bracket, Wall Mount, C-Type	GPA-96-609
Gauge, Pressure, Flush Mounted 0-150 psig	GRP-96-719
Gauge, Pressure, Flush Mounted 0-60 psig	GRP-96-720
Gauge, Pressure, Flush Mounted 0-11 bar	GRP-96-722
Gauge, Pressure, Flush Mounted 0-4 bar	GRP-96-723
Gauge, Pressure, Flush Mounted 0-2 bar	GRP-96-724
Wall Mounting Bracket, C-Type	GPA-96-609
Wall Mounting Bracket, T-Type	GPA-96-608
Gauge Adapter Block, 1/4" NPT (replaces flush mount gauge)	GPA-97-037



## HOW TO ORDER

Regulator Numbering System

**R 1 8 - 0 3 - F 0 G 0**

### R Unit Function

R = Regulator

### 1 Family

8 08 = Miniature  
 18 = Compact  
 28 = Standard  
 38 = Jumbo

### 0 Thread Type

0 = NPT  
 C = BSPP (ISO, R228 [G Series])

### 3 Pipe Size

1 = 1/8	4 = 1/2
2 = 1/4	6 = 3/4
3 = 3/8	8 = 1

### F Regulator

Diaphragm Function	Fluorocarbon	Spring Range			
		0-30 psi (0-2,1 Bar)	0-60 psi (0-4,1 Bar)	0-125 psi (0-8,5 Bar)	0-250 psi (0-17 Bar)
Relieving	No	C	D	F	G
	Yes	J	K	L	M
Non-relieving	No	P	Q	R	S
	Yes	V	X	Y	Z

### 0 Options

0 = None

### G Options

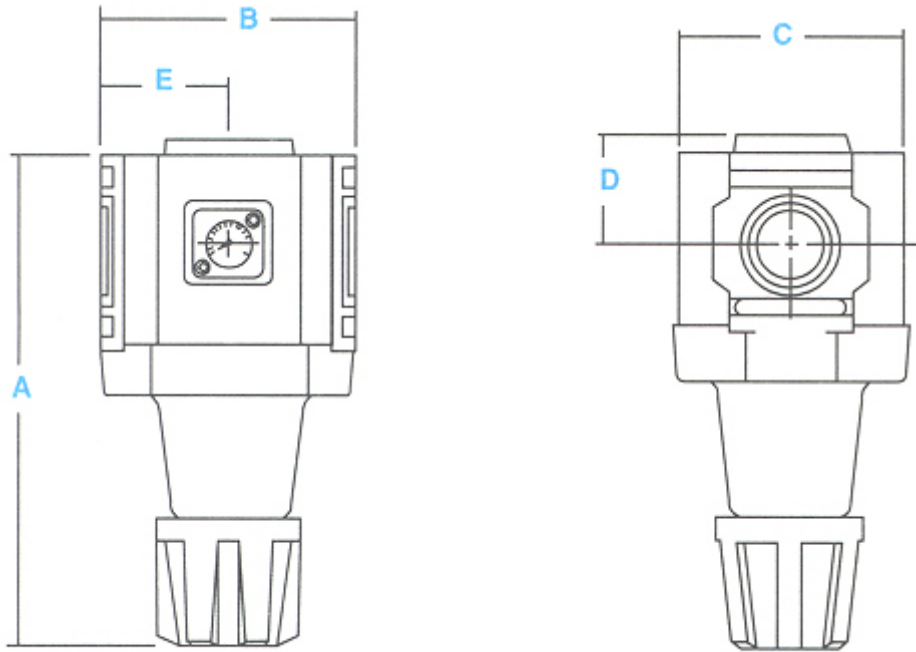
0 = None  
 E = Bar Gauge (Except 38 Series)  
 C = Tamper Resistant Regulator Adj (Tamper kit not installed. Kit is shipped loose in carton)  
 G = Pressure Gauge  
 P = Metal Panel Nut (Except 38 Series)  
 R = Reverse Flow

### 0 Options

0 = None  
 E = Bar Gauge (Except 38 Series)  
 C = Tamper Resistant Regulator Adj (Tamper kit not installed. Kit is shipped loose in carton)  
 G = Pressure Gauge  
 P = Metal Panel Nut (Except 38 Series)  
 R = Reverse Flow  
 K = Pressure Gauge mounted on back side (R08 only)

*Note: When selecting from the options columns, please enter letters in alphabetical order, for example:*  
**R18-03-F 0 G 0**

## DIMENSIONAL DETAILS



**NOTE:** Can only be mounted using "C" or "L" type brackets

Models	A mm (inches)	B mm (inches)	C mm (inches)	D mm (inches)	E mm (inches)
Standard Unit R38-XX-F000	199 (7.83)	100 (3.94)	100 (3.94)	39 (1.57)	52 (2.05)
With Gauge R38-XX-F0G0	199 (7.83)	100 (3.94)	100 (3.94)	39 (1.57)	52 (2.05)

