

**18 Series General Purpose Pressure Regulator**  
**1-1/2" and 2" Port Sizes**

- The R18 with the conventional integral pilot provides good pressure regulation, rapid response to changing flow demands, and excellent stability.
- The R18 with the feedback integral pilot provides superior pressure regulation under changing flow demands where changes in flow demand are not sudden or cyclic.
- Balanced valve minimizes effect of changes in inlet pressure on outlet pressure
- Constant bleed feature in pilot regulator provides quick response and minimum dead-band
- Exceptionally high relief flow
- Full flow gauge ports
- Low torque, non-rising adjusting knob
- Integral locking device on knob adjustment



**Ordering Information.** Models listed include R40 conventional integral pilot, relieving diaphragm, with gauge, 5 to 125 psig (0.3 to 8.5 bar) outlet pressure adjustment range\*, and PTF threads.

Port Size	Model	Flow <sup>†</sup> scfm (dm <sup>3</sup> /s)	Weight lb (kg)
1-1/2"	R18-B05-RGLA	2000 (944)	8.48 (3.85)
2"	R18-C05-RGLA	2000 (944)	8.27 (3.75)

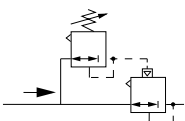
<sup>†</sup> Typical flow with 100 psig (0.7 bar) inlet pressure, 90 psig (6.3 bar) set pressure and a droop of 15 psig (1 bar) from set.

**Alternative Models**

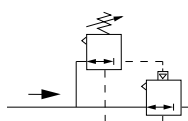
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Port Size	Substitute	Port Threads	Substitute
1-1/2"	B	PTF	A
2"	C	ISO Rc taper	B
		ISO G parallel	G
Pilot Regulator Type	Substitute	Outlet Pressure Adjustment Ranges*	Substitute
R40 Conventional	05	5 to 50 psig (0.3 to 3.5 bar)	E
R41 Feedback **	06	5 to 125 psig (0.3 to 8.5 bar)	L
		10 to 250 psig (0.7 to 17 bar)	S
		Gauge	Substitute
		With	G
		Without	N
		Diaphragm	Substitute
		Relieving	R
		Non relieving	N

\* Outlet pressures can be adjusted to pressures in excess or, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

\*\* Requires relieving diaphragm and 250 psig (17 bar) spring (R in 7th position and S in 9th position) e.g. R18-B06-RNSG. The 06 option cannot be used at an outlet pressure below 100 psig. For feedback control at pressures below 100 psig use an 11-104-001 with a pilot operated R18.

**ISO Symbols**


R18 with Conventional Pilot Regulator



R18 with Feedback Pilot Regulator

**See Section ALE-24 for Accessories**



## Technical Data

Fluid: Compressed air

Inlet pressure range: 10 psig (0.7 bar) minimum to 450 psig (31 bar) maximum

Operating temperature: -30° to 175°F (-34° to 80°C) \*

\* Air supply must be dry enough to avoid ice formation at temperatures below 35°F (2°C)

Typical flow with 100 psig (0.7 bar) inlet pressure, 90 psig (6.3 bar) set pressure, and a droop of 115 psig ( bar) from set: 2000 scfm (944 dm³/s)

Gauge ports:

1/4" PTF with PTF main ports

G1/4 with ISO G main ports

R1/4 with ISO Rc main ports

Exhaust port:

3/4" PTF with PTF main ports

G3/4 with ISO G main ports

R3/4 with ISO Rc main ports

Maximum bleed rate: 0.25 scfm (0.12 dm³/s) at 50 psig (3.5 bar) outlet pressure.

Materials

Body: Aluminum

Bonnet: Aluminum

Bottom Plug: Aluminum

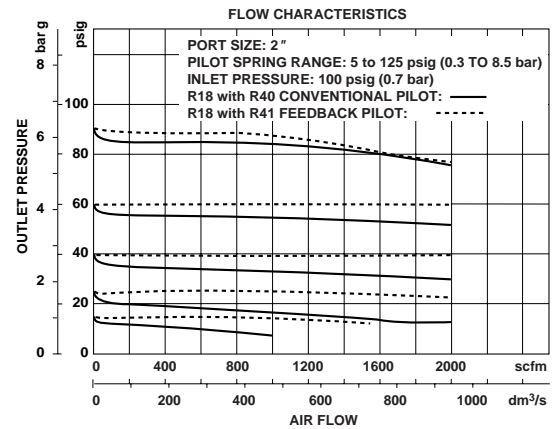
Valve

Integral Pilot Regulator: Teflon

Pilot Operated Regulator: Aluminum

Elastomers: Nitrile

## Typical Performance Characteristics



## Service Kits

Item	Type	Part number
Service kits	R18 Pilot operated regulator**	5945-40
	R40 and R41 Pilot regulators†	5945-41

\*\* Contains filter screen and all o-rings for R18 pilot operated regulator.

† Contains diaphragm, valve spring, valve, guide bushing, filter screen, and all o-rings for R40 and R41 pilot regulators.

All Dimensions in Inches (mm)

