

Pilot Operated Regulators

R18 and R24

Designed for systems that require pressure regulation at an inaccessible location.

A pilot regulator (ordered separately) controls the outlet pressure of the pilot operated regulator.

Technical data

R18

Fluid:

Compressed air

Inlet pressure range:

10 psig (0.7 bar) minimum to 450 psig (31 bar) maximum

Operating temperature:

0° to 175°F (-18° to 80°C)*

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

R24

Fluid:

Compressed air, neutral gases

NOTE: Contact Norgren for use with other media.

Inlet pressure range:

10 psig (0.7 bar) to 300 psig (20 bar)

Operating temperature:

0° to 175°F (-20° to 80°C)**

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

Materials

R18

Body, bonnet, bottom plug, valve:
Aluminum

Elastomers: Nitrile

R24

Body, top cap: zinc
main valve, adjusting screw: brass
pilot valve, relief valve: acetal

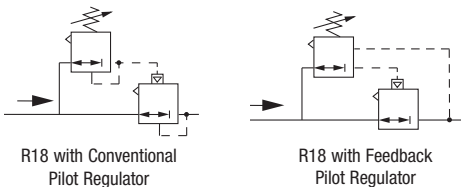
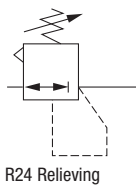
Elastomers: nitrile

Bottom plug: acetal

Port sizes

Main	Gauge	Pilot
1/4"	1/4"	1/4"
3/8"	3/8"	1/4"
1/2", 3/4", 1", 1-1/4"	1/2"	1/4"

ISO Symbols



R18



R24

Ordering Information

Models listed include relieving diaphragm and PTF threads. Also order a pilot regulator.

Port Size	Model	Flow† scfm (dm ³ /s)	Weight lb (kg)
1-1/2"	R18-B00-RNXA††	2000 (944)	6.82 (3.09)
2"	R18-C00-RNXA††	2000 (944)	6.61 (2.99)
1/4"	R24-201-RNXA		1.16 (0.73)
3/8"	R24-301-RNXA		1.54 (0.70)
1/2"	R24-401-RNXA		1.50 (0.68)
3/4"	R24-601-RNXA		2.60 (1.18)
1"	R24-801-RNXA		2.60 (1.18)
1-1/4"	R24-A01-RNXA††		2.51 (1.14)

† 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.

†† Do not use the R41 feedback pilot regulator to control outlet pressures at or less than 100 psig (7 bar). Use the 11-104 feedback pilot regulator at those pressures.

Alternative Models - R18

Port Size	Substitute	Threads	Substitute
1-1/2"	B	PTF	A*
2"	C	ISO G parallel	G

Diaphragm	Substitute	Gauge*	Substitute
Relieving	R	Without	N
Non relieving (do not use with a feedback pilot regulator)	N		

* A factory installed gauge is only available with PTF threads (A in last position of model number). For additional options see the website for this product.

Alternative Models - R24

Port Size	Substitute	Threads	Substitute
1/4"	2	PTF	A
3/8"	3	ISO G parallel	G
1/2"	4		
3/4"	6		
1"	8		
1-1/4"	A		

Feedback Pilot Regulator Warning

The feedback line must sense the pilot operated regulator outlet pressure and must be connected before turning on the air supply. If the feedback line is not connected, the pilot operated regulator outlet pressure will rapidly increase to the inlet pressure when the adjusting knob on the pilot regulator is turned clockwise.

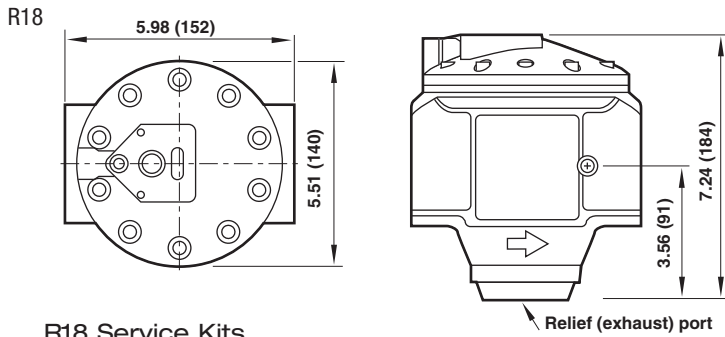
NOTE: Do not use the R41 feedback pilot regulator to control outlet pressures at or less than 100 psig (7 bar). Use the 11-104 feedback pilot regulator at those pressures.

Pilot Operated Regulators

R18 and R24

Dimensions in inches (mm)

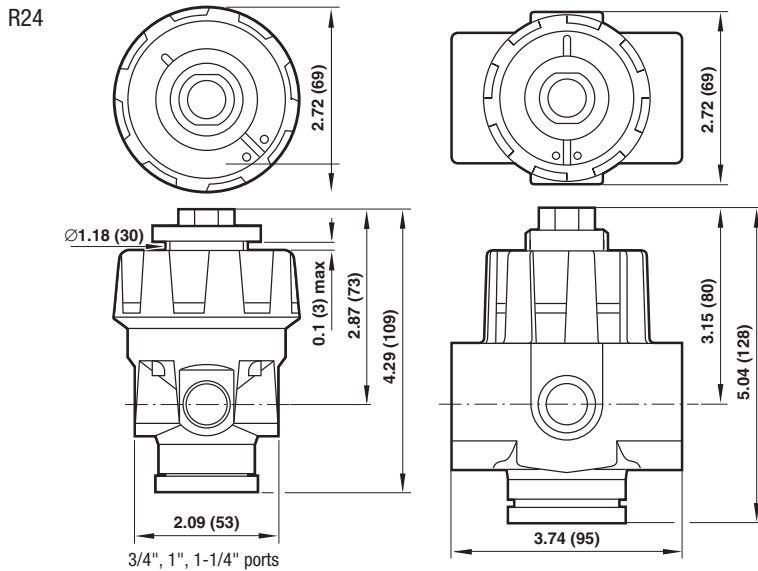
Typical Performance Characteristics



R18 Service Kits

Type	Part number
R18	5945-40

R18 service kit contains filter screen and all o-rings.



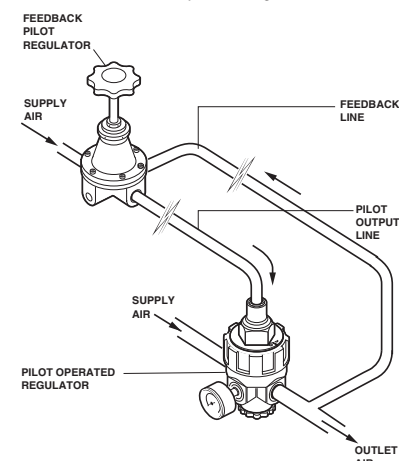
R24 Service Kits

Item	Port Size	Part number
Service kit	1/4", 3/8", 1/2"	5292-54
Service kit	3/4", 1", 1-1/4"	5292-55

Service kits include seals, main valve and spring.

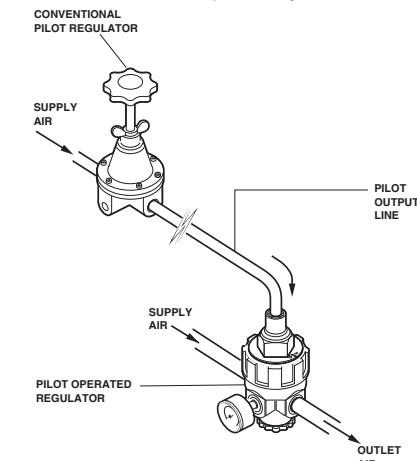
Typical Installation

Feedback Pilot and Pilot Operated Regulator

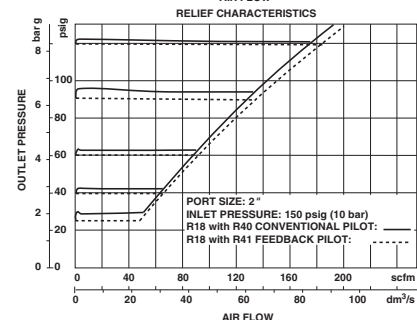
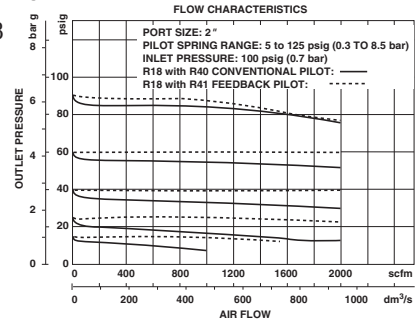


Typical Installation

Conventional Pilot and Pilot Operated Regulator



R18



R24

