NORGREN

R18

18 Series
Pilot Operated Pressure Regulator
1 1/2″ and 2″ Port Sizes

- **The R18 *PILOT OPERATED REGULATOR* can be installed at any point in the compressed air system without regard to accessibility. The *PILOT REGULATOR* can be installed in an accessible location, remote from the R18.**
- **R18 can be used with a *CONVENTIONAL PILOT REGULATOR* to provide good pressure regulation, rapid response to changing flow demands, and excellent stability.**
- **R18 can be used with a *FEEDBACK PILOT REGULATOR* to provide 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.**

Technical Data

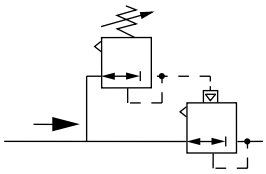
Fluid: Compressed air
Inlet pressure range: 0,7 bar (10 psig) minimum to 31 bar (450 psig) maximum
Operating temperature: -18° to +80°C (0° to +175°F) *
* Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).
R18 typical flow with 0,7 bar (100 psig) inlet pressure, 6,3 bar (90 psig) set pressure, and a droop of 1 bar (15 psig) from set: 950 dm^3/s (2 000 scfm)
R18 main ports: 1 1/2″ or 2″ ISO G
R18 pilot and gauge ports: 1/4 ISO G
R18 exhaust port: 3/4″ ISO G
11 400, 20ALX, 11-204 pilot ports: 1/4″ ISO G
11-204 feedback port: 1/8″ ISO G

Materials:
R18
Body, bonnet, bottom plug, valve: Aluminium
Elastomers: Nitrile
11 400, 20ALX, 11-204
Body, bonnet: Zinc
Handwheel: Acetal resin
Valve: Brass
Elastomers: Nitrile

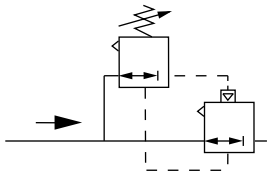
Ordering Information

See *Ordering Inform*ation on the following pages.

ISO Symbols



R18 with Conventional Pilot Regulator

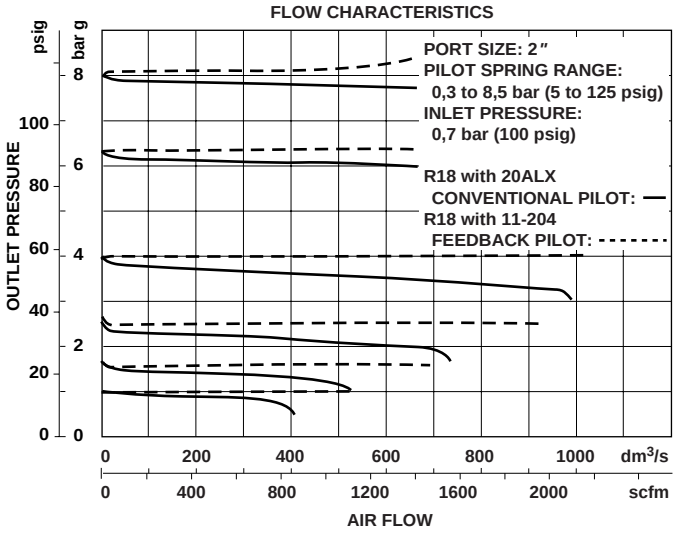


R18 with Feedback Pilot Regulator

Warning - Feedback Pilot Regulators

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

Typical Performance Characteristics



Ordering Information, R18 Pilot Operated Regulator

Models listed include relieving diaphragm and ISO G threads. Also order a remote pilot regulator below.

Port Size	Model	Flow* dm³/s (scfm)	Weight kg (lb)
G1 1/2	R18-B00-RNXG	944 (2 000)	3,09 (6.82)
G2	R18-C00-RNXG	944 (2 000)	2,99 (6.61)

* Typical flow with 0,7 bar (100 psig) inlet pressure, 6,3 bar (90 psig) set pressure and a droop of 1 bar (15 psig) from set.

Alternative Models - R18

R 1 8 - ★ 0 0 - ★ ★ X ★

Port Size	Substitute
1 1/2″	B
2″	C

Diaphragm	Substitute
Relieving	R
Non relieving (do not use with a feedback pilot regulator)	N

Threads	Substitute
ISO G parallel	G

Gauge	Substitute
Without	N

Ordering Information, 11 400, 20AL-X Remote Pilot Regulators

Models listed are relieving with constant bleed, 0,7 to 17 bar (10 to 250 psig) outlet pressure adjustment range**, ISO G ports.

Port Size	Model	Range bar (psig)	Weight kg (lb)
G1/4	11 400-2G (2 bar)	0,06 to 2 (1 to 30)	0,90 (1.98)
G1/4	11 400-2G (4 bar)	0,06 to 4 (1 to 60)	0,94 (2.07)
G1/4	11 400-2G (7 bar)	0,16 to 7 (2 to 100)	1,00 (2.20)
G1/4	20AL-X2G	7 to 20 (100 to 300)	1,05 (2.30)

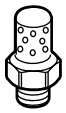
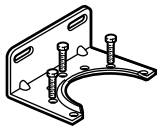
Ordering Information, 11-204 Remote Pilot Regulator

Models listed are relieving with constant bleed, 0,3 to 7 bar (5 to 100 psig) outlet pressure adjustment range**, ISO G ports.

Port Size	Model	Range bar (psig)	Weight kg (lb)
G1/4	11-204-004	0,16 to 7 (2 to 100)	1,10 (2.42)
G1/4	11-204-006	4 to 17 (60 to 250)	1,10 (2.42)

** 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.

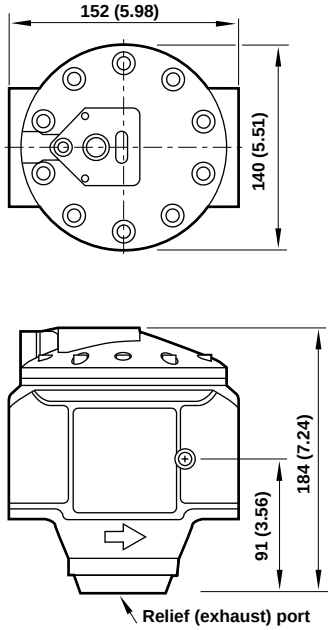
Accessories

				
R18 Exhaust muffler	All Pilots Wall Mounting Bracket	Panel Mount Kit - pilot only (includes threaded bonnet)	∅ 50 mm Pressure Gauge	R1/8 Connection
R3/4: MB006B	18-001-005	11 400 series: 18-003-999	1,6 bar (23 psig)	18-013-010
		20AL-X series 18-003-026	4 bar (60 psig)	18-013-011
		(not needed for 11-204 series)	6 bar (90 psig)	18-013-012
			10 bar (150 psig)	18-013-013
			25 bar (350 psig)	18-013-014

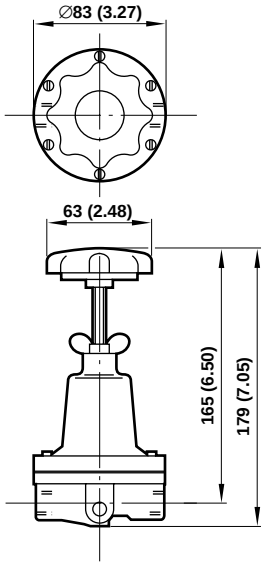
Dimensions – mm (Inches)

Panel mounting hole diameter (pilot only): 28 mm (1.10″)

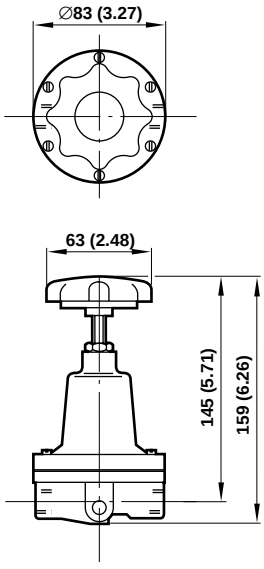
Panel thickness: 5 to 10 mm (0.2 to 0.4″)



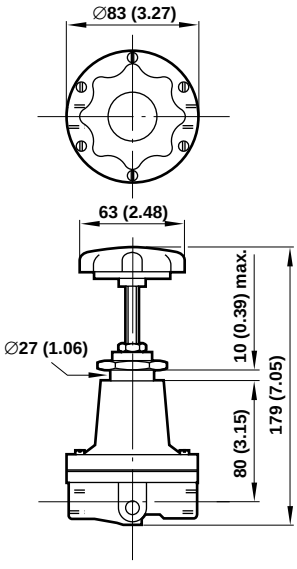
R18 Pilot Operated Regulator



11 400 Conventional Pilot Regulator
(panel mounting dimensions as 11-204.
See accesories.)

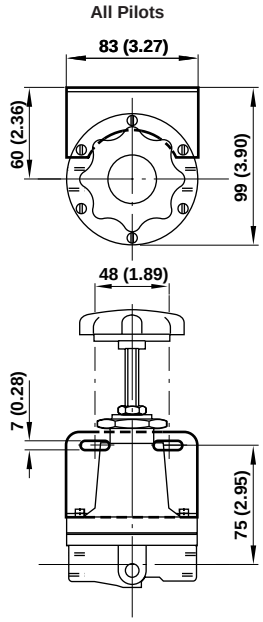


20AL-X Conventional Pilot Regulator
(panel mounting dimensions as 11-204.
See accesories.)



11-204 Feedback Pilot Regulator with Panel Nut
(includes panel mounting nut)

Bracket Mounting



Bracket Kit Reference

Item	Part Number
All pilots	18-001-005

Service Kits

Type	Part number
R18 gasket kit	R18-GK
R18 service kit, relieving	R18-100R
R18 service kit, non relieving	R18-100N
11 400, 20AL-X, service kit	11,400-100
11-204, service kit	11-204-100

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

11 400, 20AL-X service kit contains diaphragm, valve spring, guide bushing, valve, valve spring, filter screen, and all o-rings.

11-204 service kit contains diaphragm, valve pin, valve springs, valve seat, valve ball, and all o-rings.

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where *pressures* and *temperatures* can exceed those listed under **'Technical Data'**.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult Norgren.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.