



Parker Hannifin Corporation's Veriflo Division presents the Quantum 959. The 959 is a high purity, high pressure tied diaphragm regulator.

The 959 regulator controls pressure flows accurately and predictably without changing the liquids or gases and without adding particles or ions to the flowing material.

Subatmospheric pressure control available with the NPR959.



features

- ▶ "VeriClean", Veriflo's low sulfur high purity 316L, Stainless Steel™ enhances electropolishing, welding, and corrosion resistance.
- ▶ Unique patented compression member loads the seal to the body without requiring a threaded nozzle or additional seals to atmosphere.
- ▶ Internally threadless nozzle assembly.
- ▶ Metal-to-metal diaphragm-to-body seal assures high leak integrity.
- ▶ Minimal particle generation and entrapment.
- ▶ High cycle life.
- ▶ 100% Helium leak tested.

Catalog: 4511
LitPN: 25000173
Revision: A • 11/03



materials of construction

Wetted

Body "VeriClean", Veriflo's high purity type 316L Stainless Steel™, Hastelloy C-22®
 Seat PCTFE, optional Vespele®
 Diaphragm 316L Stainless Steel, Hastelloy C-22®
 Poppet 316L Stainless Steel, Hastelloy C-22®
 Poppet Spring 316L Stainless Steel, Inconel®
 Compression Member 316L Stainless Steel™, Hastelloy C-22®
 Screen Hastelloy C-22®

Non-Wetted

Nut 316L Stainless Steel
 Cap Nickel Plated Brass

Knob:

959 (Black) ABS Plastic
 NPR959 (White) ABS Plastic

operating conditions

Maximum inlet 3500 psig (240 barg)
 .2 C_v 1200 psig (83 barg)
 Outlet 0-30 psig (2 barg)
 0-100 psig (7 barg), 0-150 psig (10.3 barg)
 NPR -25 in Hg to 30 psig
 Temperature -40°F to 150°F (-40°C to 65°C)

functional performance

Flow capacity C_v = .04
 optional C_v = .2
 (SEMI Flow Coefficient Test # F-32-0998)

Design Leak Rate:

Outboard 1 x 10⁻⁹ scc/sec He
 Inboard 2 x 10⁻¹⁰ scc/sec He
 Across seat 2 x 10⁻⁹ scc/sec He

standard configurations

Any combination of FS male and/or female fittings:
 1/4 inch Gland to gland length. 3.70 ± .02 in.
 (94.0 ± .5 mm)
 Optional 3.40 ± .02 in. (86.0 ± .5 mm)

1/4 inch tube stubs inlet and outlet:

End to end length 3.70 ± .02 in. (94.0 ± .5 mm)
 1/4 inch female pipe threads inlet and outlet:
 End to end length 1.88 ± .02 in. (47.7 ± .5 mm)

internal volume

5.41 cc

surface finishes

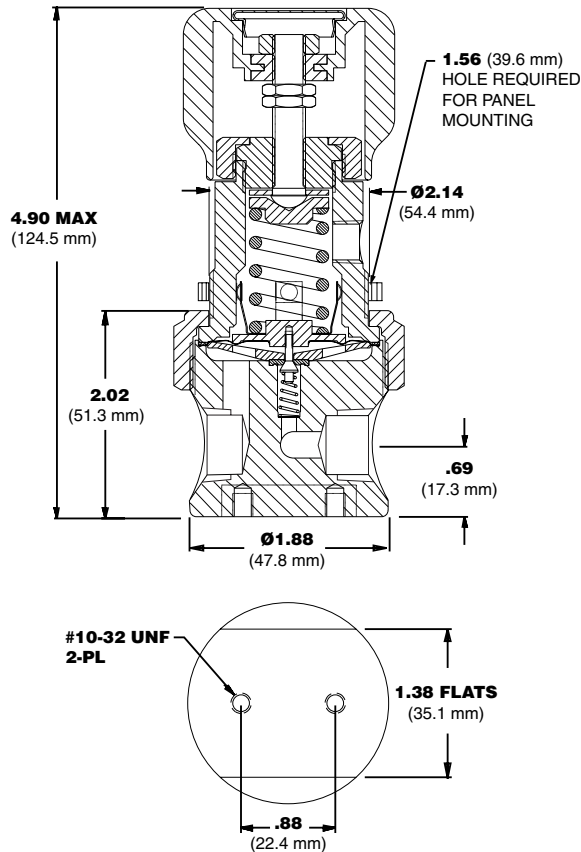
Standard Ra 15-20 m inch
 (.38 to .5 m meter) or less
 Optional Ra EX = 10 m inch (.25 m meter)
 EV = 5 m inch (.13 to .5 m meter) or less

approximate weight

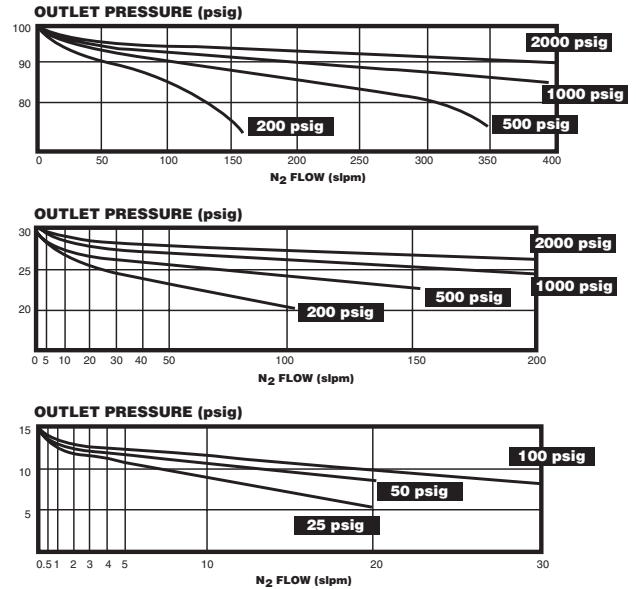
2 lbs (.9 kg)

QUANTUM 959TDR & NPR959

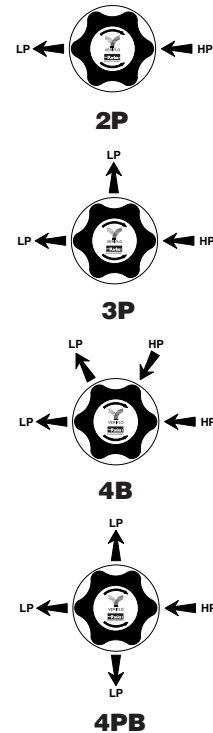
Dimensional Drawing



Flow Curves



Porting Configurations



Ordering Information

95930

BASIC SERIES

95930 = 0 - 30 psig
 959100 = 0 - 100 psig
 959150 = 0 - 150 psig
 NPR95930 = -25 in Hg- 0-30 psig

MATERIALS

S = 316L Stainless Steel
 W = Welded 316L Stainless Steel
 H = Hastelloy C-22[®]*

PORTING

2P = 2 Ports
 3P = 3 Ports
 4P = 4 Ports
 4PB = 4 Ports
 5P = 5 Ports
 6P = 6 Ports

OUTLET GAUGE

V3 = -30 in Hg-0-30 psig
 V1 = -30 in Hg-0-100 psig
 V2 = -30 in Hg-0-200 psig
 3 = 0 - 30 psig
 1 = 0 - 100 psig
 2 = 0 - 200 psig
 X = No Gauge

OPTIONAL FEATURES

DO = Dome Loaded
 PM = Panel Mount
 TH = Trim Hastelloy C-22[®] Internals**
 VESP = Vespel[®] Seat
 (Recommended for Nitrous Oxide)
 2 = 0.2 Cv
 3.4 = FS Fittings 3.4" Face to Face

PORT CONFIGURATION

M = Male
 F = Female
 I = Internal Face Seal***

PORT STYLE

FS = 1/4" Face Seal
 4 = 1/4" NPTF
 TS = 1/4" Tube Stub

INLET GAUGE

V3 = -30 in Hg -0-30 psig
 V1 = -30 in Hg -0-100 psig
 2 = 0-200 psig
 6 = 0-600 psig
 10 = 0-1000 psig
 20 = 0-2000 psig
 30 = 0-3000 psig
 40 = 0-4000 psig
 X = No Gauge

* Hastelloy C-22[®] Material Includes: Hastelloy C-22[®] Body, Compression Member, Poppet, Diaphragm, Screen, and Inconel[®] Spring

** Trim Hastelloy C-22[®] Includes: 316L Stainless Steel Body, Hastelloy C-22[®] Compression Member, Poppet, Diaphragm, Screen, and Inconel[®] Spring

*** Use Material Code 'W'

Hastelloy[®] C-22 is a registered trademark of Haynes International, Inc.
 Vespel[®] is a registered trademark of DuPont Company.
 Inconel[®] is a registered trademark of Inco Alloys International