SQ Series

UHP High Performance, Point-Of-Use Regulators Welded, Stainless Steel

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

Value Proposition:

The SQ Series of regulators are high flow, high performance point-of-use regulators designed to be used in process gas cabinets for gas companies, equipment manufacturers and end users.

The SQ Series of regulators provide precise control of the process gas pressure at or near the tool. The results are stable flow and pressure to the mass flow controller.

The SQ60SA provides precise pressure control for point-of-use in the sub-atmospheric range.

Contact Information:

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Product Features:

- Standard Hastelloy C-22® poppet and diaphragm
- Tied-diaphragm for added safety
- Capable of operating at a wide range of flows - see flow range table for details
- No springs or threads are exposed to the wetted area
- Metal-to-metal, diagragm-to-body seal
- Standard full internal electropolish
- Design and materials of construction ensure compatibility with the high flow of corrosive gases
- Sub-atmospheric available (SQ60SA)

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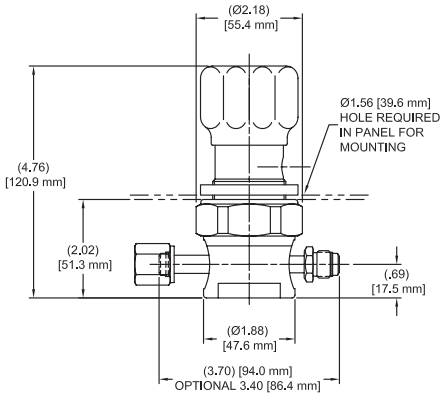
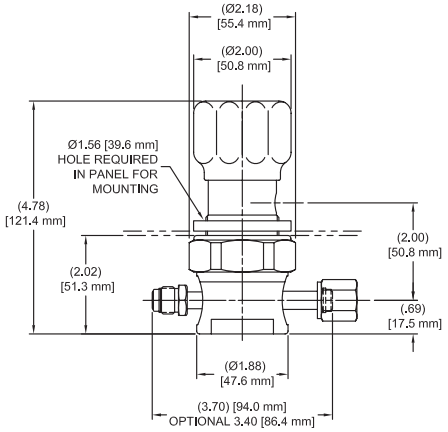
SQ Series

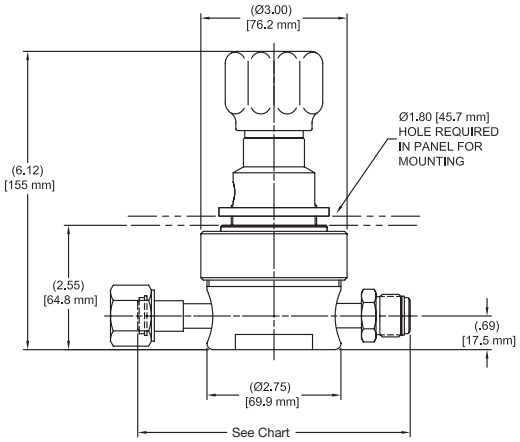
Dimensional Drawings



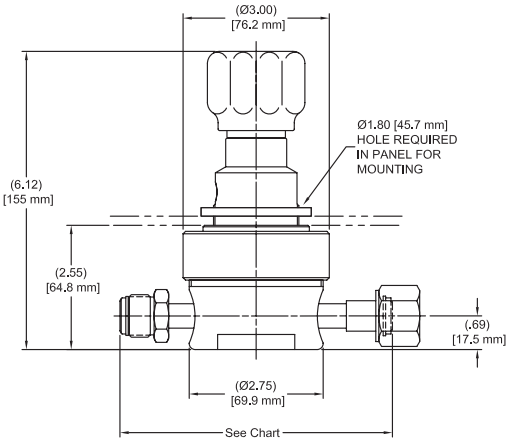
SQ60 & SQ60SA



SQ130E



SQ140E



SQ420E

Flow Curves

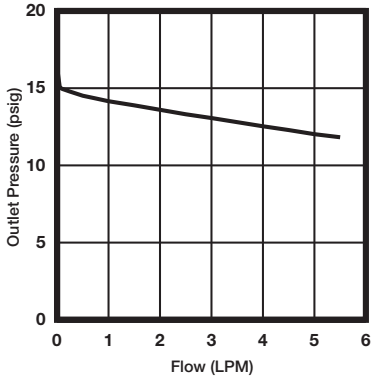
Additional flow curves available upon request

DIMENSION TABLE ***(SQ140E & SQ420E Only)***

Connection Type	End to End Dimension
1/4" Face Seal	4.64" (117.9 mm)
1/2" Face Seal	5.59" (142 mm)
1/2" Tube Stub	4.64" (117.9 mm)

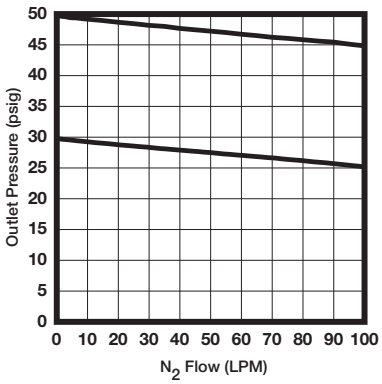
SQ60

Inlet Pressure: 30 psig



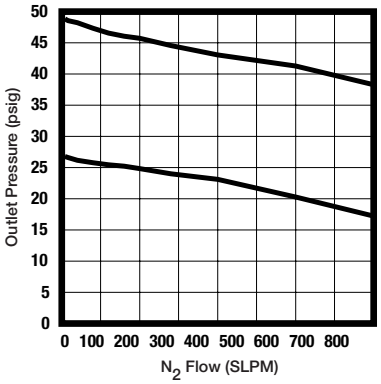
SQ140E

Inlet Pressure: 80 psig



SQ420E

Inlet Pressure: 250 psig



Safety Guide and Installation and Operating Instructions available at
www.parker.com/veriflo

SQ Series

Ordering Information

Build a SQ Series regulator by replacing the numbered symbols with an option from the corresponding tables below.

Color Explanations: Black = Standard Lead Time Configurations
Blue = Extended Lead Time Configurations

For an explanation of Ordering options please reference literature 25000275 at www.parker.com/veriflo

	1	2	3	4	5	6	7	8	9
Sample: **SQ**	**60**	**30**		**2P**			**FS**	**MF**	**EV**

Finished Order: **SQ60302PFSMFEV**

1 Basic Series

60
60SA
130E
140E
420E

2 Pressure Range

- Omitted for SQ60SA.

30 = 30 psig
50 = 50 psig
100 = 100 psig

3 Body Material

= Vericlean™ 316L Stainless Steel

4 Porting

2P = 2 Ports *No X required for gauges, inlet & outlet ports only*
3P = 3 Ports *One X for gauge port*
4P = 4 Ports *Two X's for gauge ports*
See Regulator Porting Guide for additional options and port layouts

5 Outlet Gauge

VX = -30 in Hg 0 - 150 psig
V1 = -30 in Hg 0 - 100 psig
V2 = -30 in Hg 0 - 200 psig
V3 = -30 in Hg 0 - 30 psig
OL = 0 - 60 psig
L = -30 in Hg 0 - 60 psig
X = No Gauge
Additional ranges available upon request

6 Inlet Gauge

V1 = -30 in Hg 0 - 100 psig
2 = 0 - 200 psig
4 = 0 - 400 psig
10 = 0 - 1000 psig
X = No Gauge
Additional ranges available upon request

7 Port Style

FS = 1/4" Face Seal
FS8 = 1/2" Face Seal
TS = 1/4" Tube Stub
TS6 = 3/8" Tube Stub
TS8 = 1/2" Tube Stub

8 Port Configuration

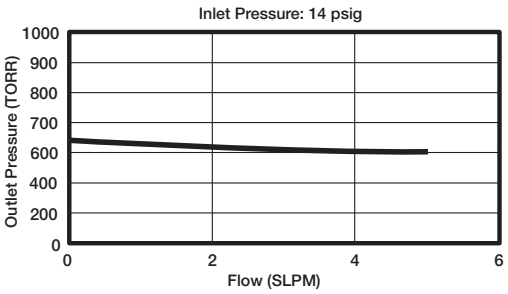
M = Male
F = Female
I = Internal Face Seal
1/4" FS-M Gauge Ports are Standard

9 Optional Features

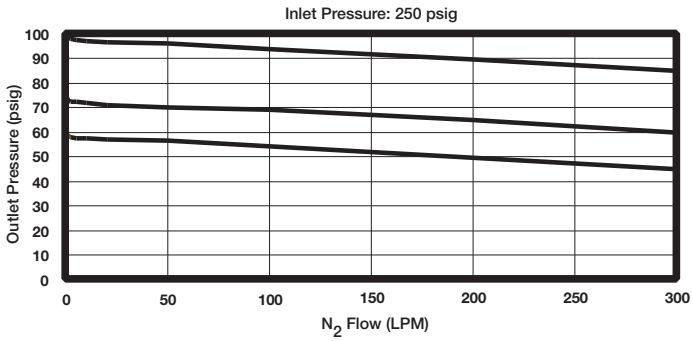
This section can have multiple options

DO = Dome Loaded *- SQ130E only.*
EV = 5 Ra micro inch surface finish
PM = Panel Mount
TH = Hastelloy C-22® Trim *Available on Stainless Steel body only. Includes Hastelloy C-22® diaphragm, compresson member and poppet.*
VESP = Vespel® Seat *Recommended for Nitrous Oxide (N2O) service*
3.4 = 3.4" Optional End-to-End Dimension *- SQ60, SQ60SA & SQ130E only.*
750 = Max Inlet Pressure *- SQ140E only.*

SQ60SA



SQ130E



SQ Series

Specifications

Materials of Construction	
Wetted	
Body	VeriClean™ 316L Stainless Steel
Compression Member Options	VeriClean™ 316L Stainless Steel (std) or Hastelloy C-22®
Diaphragm	Hastelloy C-22®
Poppet	Hastelloy C-22®
Seat Options	PCTFE (std) or Vespel®
Non-wetted	
Cap	Nickel Plated Brass
Nut	316L Stainless Steel
Knob	ABS

Operating Conditions	
Maximum Inlet	
SQ60, SQ60SA, SQ420E	250 psig (17 barg)
SQ130E	1000 psig (70 barg)
SQ140E	250 psig (17 barg) (std) or 750 psig (52 barg)
Outlet Options	
SQ60, SQ130E, SQ140E, SQ420E	0 - 30 psig (2 barg) 0 - 50 psig (3 barg) 0 - 100 psig (7 barg)
SQ60SA	-25 in Hg to 15 psig (1 barg)
Temperature	-40°F to 150°F (-40°C to 66°C)

For additional information on materials of construction, functional performance and operating conditions, please contact factory.

Vespel® is a registered trademark of DuPont Performance Elastomers L.L.C.
Hastelloy C-22® is a registered trademark of Haynes International, Inc.
VeriClean™ is a trademark of Parker Hannifin Corporation

Functional Performance	
Design	
Burst Pressure	
SQ60, SQ60SA, SQ140E, SQ420E	750 psig (52 barg)
SQ130E	3,000 psig (207 barg)
Proof Pressure	
SQ60, SQ60SA, SQ140E, SQ420E	375 psig (26 barg)
SQ130E	1,500 psig (103 barg)
Flow Capacity	
SQ60	C_V 0.054
SQ60SA	C_V 0.15
SQ130E	C_V 0.2
SQ140E	C_V 0.25
SQ420E	C_V 1.5
Leak Rate	Inboard Test Method
Internal	$< 5 \times 10^{-8}$ scc/sec He*
External	$< 2 \times 10^{-10}$ scc/sec He
Internal Volume	
SQ60, SQ60SA	6.35 cc
SQ130E	6.19 cc
SQ140E	19.02 cc
SQ420E	22.32 cc
Approx. Weight	
SQ60, SQ60SA, SQ130E	1.5 lbs. (0.7 kgs)
SQ140E, SQ420E	4.5 lbs. (2.1 kgs)

* SQ420E: Design Internal Leak Rate shown.
Production Leak Test is Outboard sniffer probe at 50-70 psig, 20%-25% Helium.

Use mobile device to scan this QR Code.

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