

# SMQRM Series

## Surface Mount Miniature Pressure Regulator

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

### Customer Value Proposition:

Parker Hannifin Corporation's Veriflo Division presents the Surface Mount QRM and the Surface Mount QRM HF Series pressure regulator. The SMQRM and SMQRMHF are miniature high purity, threadless type, non-tied diaphragm regulators with a footprint designed to reduce system real estate.

The design of the SMQRM and SMQRMHF provide faster purge times and extend the seat life. Precise gas regulation and performance is achieved in a miniature regulator.



### Contact Information:

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[www.parker.com/veriflo](http://www.parker.com/veriflo)

### Product Features:

- Standard Hastelloy C-22® diaphragm.
- Miniature footprint with low internal volume.
- No threads exposed to the wetted area.
- Standard full internal electropolish.
- Critically Dampened to improve MFC Flow Stability.
- Meets SEMI Modular Interface specifications.



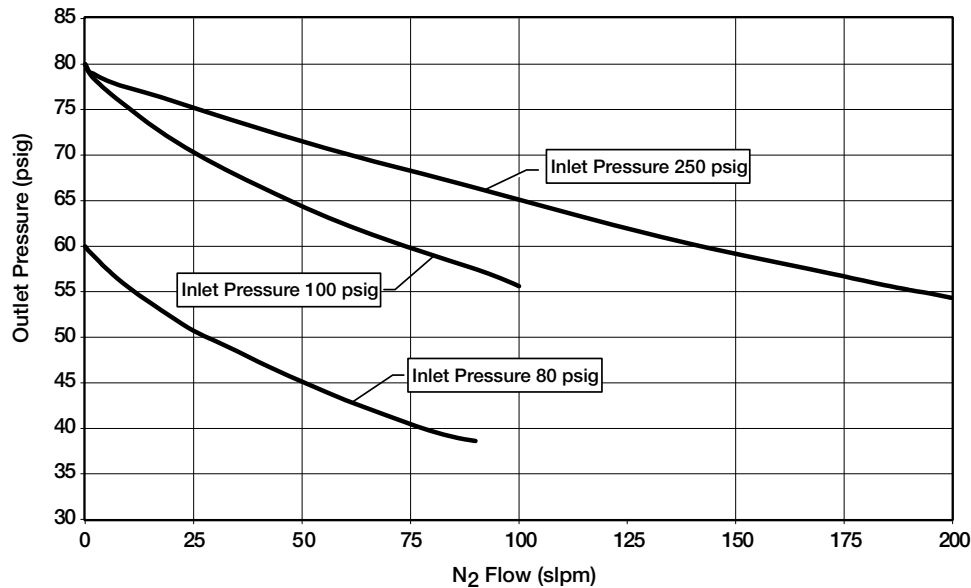
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# SMQRM & SMQRMHF

## Flow Curves

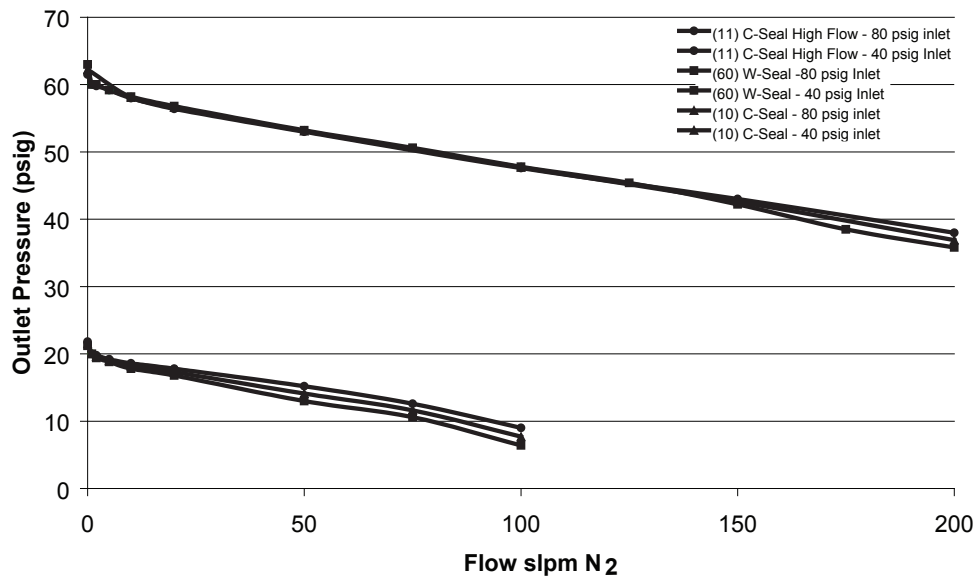
Additional flow curves available upon request

### SMQRM



### SMQRMHF

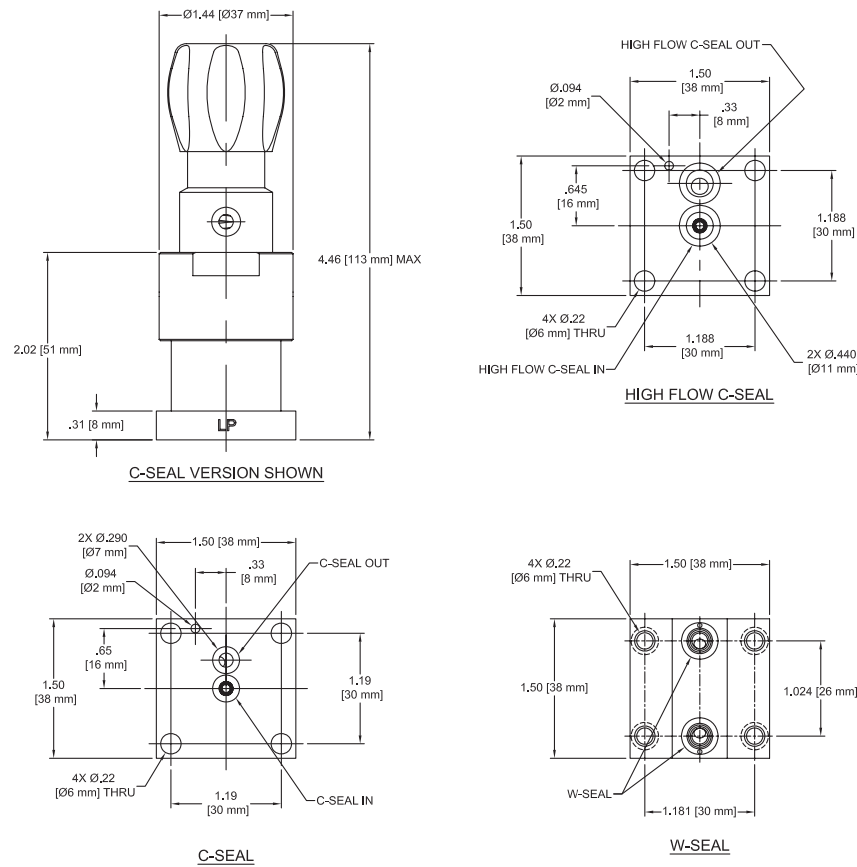
(11) C-Seal High Flow, (10) C-Seal and (60) W-Seal Flow Curve



Safety Guide and Installation and Operating Instructions available at  
[www.parker.com/veriflo](http://www.parker.com/veriflo)

# SMQRM & SMQRMHF

## Dimensional Drawing



## Ordering Information

Build a SMQRM & SMQRMHF regulator by replacing the numbered symbols with an option from the corresponding tables below.

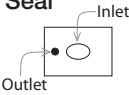
Sample: **SMQRM 30 S 10 PA**  
Finished Order: **SMQRM30S10PA**

**1 Basic Series**  
SMQRM  
SMQRMHF

**2 Pressure Range**  
**SMQRM**  
30 = -10 - 30 psig  
60 = 1 - 60 psig  
100 = 2 - 100 psig  
250 = 3 - 250 psig  
**SMQRMHF**  
30 = 1 - 30 psig  
60 = 1 - 60 psig  
100 = 2 - 100 psig  
150 = 3 - 150 psig

**3 Body Material**  
S = 316L Stainless Steel

**4 Porting**  
10 = = 2 Ports, C-Seal  
11 = = 2 Ports, High Flow C-Seal  
60 = = "W" Seal



**5 Optional Features**  
This section can have multiple options  
PA= MPa Max Inlet Pressure Unit Marking  
EV= 5Ra Surface Finish

# SMQRM & SMQRMHF

## Specifications

Materials of Construction	
<b>Wetted</b>	
Body	VeriClean™ 316L Stainless Steel
Compression Member Options	VeriClean™ 316L Stainless Steel
Diaphragm	Hastelloy C-22® or equivalent
Poppet	Inconel X-750® or equivalent - <i>SMQRM Only</i>
	Hastelloy C-276® or equivalent - <i>SMQRMHF Only</i>
Poppet Spring	Inconel X-750®
Poppet Pin	Hastelloy C-22® or equivalent
Seat	PCTFE
Seat Retainer	VeriClean™ 316L Stainless Steel
<b>Non-wetted</b>	
Cap	Nickel Plated Brass
Adjusting Screw	316L Stainless Steel
Knob	ABS (Black)
Operating Conditions	
Maximum Inlet	
SMQRM	500 psig (35 barg)
SMQRMHF30	250 psig (17 barg)
SMQRMHF60, SMQRMHF100, SMQRMHF150	500 psig (35 barg)

VeriClean™ is a trademark of Parker Hannifin Corporation  
Inconel® is a registered trademark of Special Metals Corporation  
Hastelloy C-22®, and Hastelloy C-276® are registered trademarks of Haynes International, Inc.

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

Operating Conditions <i>Continued</i>	
Outlet	
SMQRM	-10 psig - 30 psig (5 psia, 250 torr - 2 barg)
	1 - 60 psig (0.07 - 4 barg)
	2 - 100 psig (0.14 - 7 barg)
	3 - 250 psig (0.21 - 17 barg)
SMQRMHF	1 - 30 psig (0.07 - 2 barg)
	1 - 60 psig (0.07 - 4 barg)
	2 - 100 psig (0.14 - 7 barg)
	3 - 150 psig (0.21 - 10.5 barg)
<b>Temperature</b>	
Operating	-40°F to 150°F (-40°C to 66°C)
Storage	-40°F to 150°F (-40°C to 66°C)
Functional Performance	
<b>Design</b>	
Burst Pressure	1500 psig (103 barg)
Proof Pressure	750 psig (52 barg)
<b>Flow Capacity</b>	C <sub>v</sub> 0.1 - <i>SMQRM Only</i>
	C <sub>v</sub> 0.17* - <i>SMQRMHF Only</i>
<b>Leak Rate</b>	
Internal	Inboard Test Method
External	< 4 x 10 <sup>-8</sup> cc/sec He
	< 2 x 10 <sup>-10</sup> cc/sec He
<b>Surface Finish</b>	
Standard Ra	10 micro inch
Optional Ra	5 micro inch
<b>Internal Volume</b>	4.0 cc (approximately)
<b>Approx. Weight</b>	1 lbs. (0.45 kgm)

\* For High Flow C-Seal

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