



Spec Master HP600 Series 6.0 Nickel Plated Brass Barstock Regulator

Spec Master HP600 Series regulators are intended for primary pressure gas control of:

- ▶ **Non-Corrosive**
- ▶ **High Purity gases** (up to 6.0 Grade)

The Spec Master HP600 series regulators are intended for primary pressure gas control of non corrosive, high purity gases, up to 6.0 purity grade.

HPS600 Series –

Nickel Plated Brass Single Stage Regulator for applications where slight pressure variance in delivery pressure is acceptable (as cylinder pressure decreases)

HPT600 Series –

Nickel Plated Brass Two Stage Regulator for applications where constant pressure is required (as cylinder pressure decreases)

HPL600 Series –

Nickel Plated Brass Line Regulator for gas applications, for distribution systems (pipelines)



HPS600 SERIES



HPT600 SERIES



HPL600 SERIES



Spec Master HP600 Series 6.0 Nickel Plated Brass Barstock Regulator

HP600 SERIES

TYPICAL APPLICATIONS

Gas chromatography
High purity carrier gases
Zero, span and calibration gases
Toxic and corrosive gases
High purity chamber pressurization

FEATURES

Six port configuration
Front and rear panel mounting capabilities
Encapsulated seat design
Low wetted surface area
Full range of inlet and outlet fittings
Fitted pressure relief valve (Single and Two stage regulators)
Optional captured bonnet vent kit

MATERIALS

Body Nickel Plated Brass Barstock
Bonnet Nickel Plated Brass Barstock
Seat PCTFE
Diaphragm (regulator) 316L Stainless Steel
Piston (regulator) Nickel Plated Brass
Seals PTFE
Filter 10 Micron sintered 316L Stainless Steel

SPECIFICATION

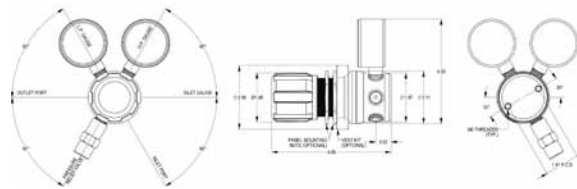
Maximum Inlet Pressure	60 bar (870 psig), 207 bar (3000 psig), 300 bar (4350 psig)*		
Delivery Pressure Range psig	0-22 psig, 0-50 psig, 0-90 psig, 0-150 psig, 0-300 psig, 0-725 psig		
Delivery Pressure Range bar	0-1.5 bar, 0-3.5 bar, 0-6 bar, 0-10 bar, 0-20 bar, 0-50 bar		
Gauges	50mm (2") diameter stainless steel, snap-on tamper proof lens		
Ports	1/4" NPT Female		
Temperature Range	-40° C to +60° C (-40 F to 140° F)		
Helium Leak Integrity	1 X 10 ⁻⁸ scc/sec		
Flow Coefficient	SGS / SGL	SGT	
	C _v =0.094	C _v =0.078	(diaphragm regulator)
	C _v =0.088	C _v =0.072	(piston regulator)
Ports	1/4" NPT Female		
Weight	HPL600 1.0kg (2.2lb) / SGS600 1.1kg (2.5lb) / SGT600 1.5kg (3.5lb)		
	HPL620 1.2kg (2.7lb) / SGS620 1.3kg (2.8lb) / SGT620 1.8kg (4.0lb)		

*Single and Two Stage regulators with no fitting fitted in to the regulator

DIMENSIONS

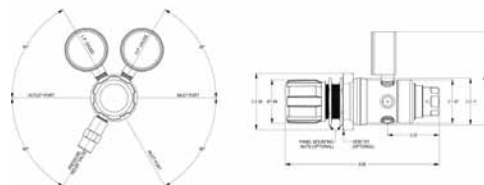
SINGLE STAGE REGULATOR

HP600 Series – Single Stage diaphragm regulator with relief valve



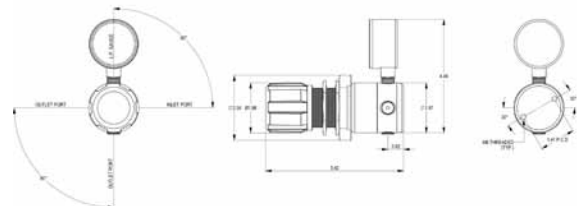
TWO STAGE REGULATOR

HP600 Series – Two Stage diaphragm regulator with relief valve



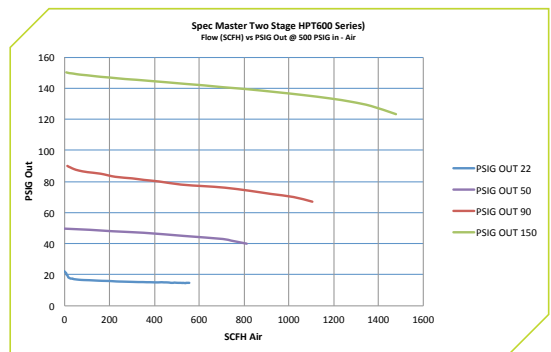
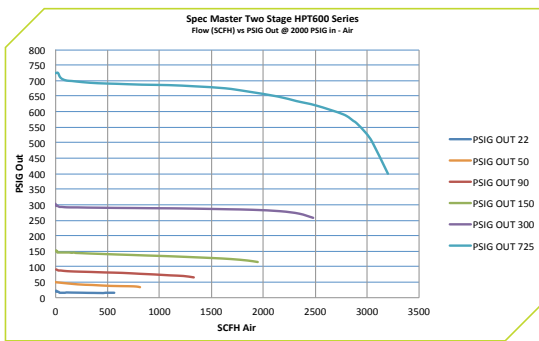
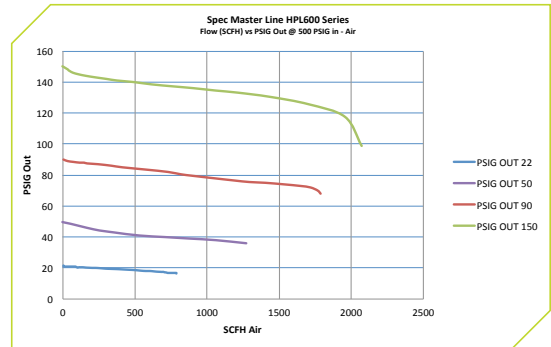
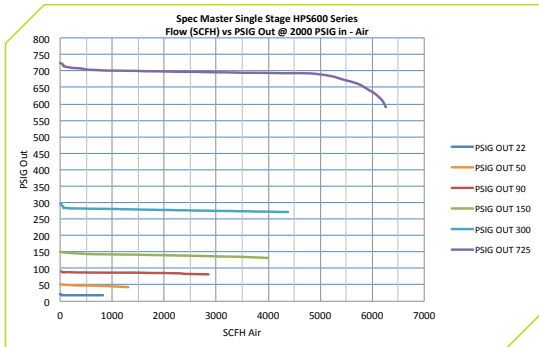
LINE REGULATOR

HP600 Series – Line regulator with no relief valve



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FLOW PERFORMANCE



MODEL NO. SELECTOR GUIDE

HPS600-03-05-03-03-102-01-FG

PRODUCT MODEL	INLET PRESSURE	DELIVERY PRESSURE	INLET PRESSURE GAUGE UNIT	DELIVERY PRESSURE GAUGE UNIT	INLET FITTINGS	OUTLET FITTINGS	OPTIONS
HPS600	02 870 psi	02 0-22 psi	00 No Gauge	00 No Gauge	000 No Inlet Fittings	00 No Outlet Fittings	A No Options
HPS620	03 3000 psi	03 0-50 psi	03 Bar/PSI Plated Brass	03 Bar/PSI	001 1/8" Compression Tube Brass	01 1/8" Compression Tube Brass	F Bonnet Captured Vent Kit
	04 4350 psi	04 0-90 psi		03 Bar/PSI	003 1/4" Compression Tube Brass	03 1/4" Compression Tube Brass	G Helium Leak Test Certification
		05 0-150 psi		008 1/4" NPT Male Brass Chrome Plated	08 1/4" NPT Male Brass Chrome Plated	L Compliance Certificate	
		07 0-300 psi		089 CGA 170 Brass Chrome Plated	32 DRK Diffusion Resistant Shut-Off Valve 1/4" NPT Female Brass Chrome Plated	M Panel Mount Locking Nuts (2 units)	
		10 0-725 psi		093 CGA 296 Brass Chrome Plated	33 DRK Diffusion resistant Shut-Off Valve 1/8" Tube Brass Chrome Plated	N With Out Relief Valve	
		095 CGA 320 Brass Chrome Plated	34 DRK Diffusion resistant Shut-Off Valve 1/4" Tube Brass Chrome Plated	* 300 & 725 psi delivery ranges are not fitted with Relief Valve			
		096 CGA 326 Brass Chrome Plated	36 DRK Diffusion resistant Shut-Off Valve 1/4" NPT Male Brass Chrome Plated				
		097 CGA 330 Brass Chrome Plated	39 Control Valve 1/4" NPT Brass Chrome Plated				
		098 CGA 346 Brass Chrome Plated					
		099 CGA 350 Brass Chrome Plated					
		100 CGA 500 Brass Chrome Plated					
		101 CGA 510 Brass Chrome Plated					
		102 CGA 540 Brass Chrome Plated					
		103 CGA 555 Brass Chrome Plated					
		104 CGA 580 Brass Chrome Plated					
		105 CGA 590 Brass Chrome Plated					
		109 CGA 992 Brass Chrome Plated					

Rules: **HPS600** 1) Model number for delivery pressures up to 150 psi
HPS620 1) Model number for 300 and 725 psi delivery pressure
HPS600 & HPS620 1) Inlet Pressure of 4350 psi (option 4) only available with no inlet fitting (option 00 - inlet fittings) and option N (with out relief valve - options) not available

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MODEL NO. SELECTOR GUIDE

HPT600-03-05-03-03-102-01-FG

PRODUCT MODEL	INLET PRESSURE	DELIVERY PRESSURE	INLET PRESSURE GAUGE UNIT	DELIVERY PRESSURE GAUGE UNIT	INLET FITTINGS	OUTLET FITTINGS	OPTIONS
HPT600	02 870 psi	02 0-22 psi	00 No Gauge	00 No Gauge	000 No Inlet Fittings	00 No Outlet Fittings	A No Options
HPT620	03 3000 psi	03 0-50 psi	03 Bar/PSI	03 Bar/PSI	001 1/8" Compression Tube Brass	01 1/8" Compression Tube Brass	F Bonnet Captured Vent Kit
	04 4350 psi	04 0-90 psi	Plated Brass	Plated Brass	003 1/4" Compression Tube Brass\	03 1/4" Compression Tube Brass	G Helium Leak Test Certification
		05 0-150 psi			008 1/4" NPT Male Brass Chrome Plated	08 1/4" NPT Male Brass Chrome Plated	L Compliance Certificate
		07 0-300 psi			092 CGA 280 Brass Chrome Plated	32 DRK Diffusion Resistant Shut-Off Valve 1/4" NPT Female Brass Chrome Plated	M Panel Mount Locking Nuts (2 units)
		10 0-725 psi			093 CGA 296 Brass Chrome Plated	33 DRK Diffusion resistant Shut-Off Valve 1/8" Tube Brass Chrome Plated	N With Out Relief Valve
					095 CGA 320 Brass Chrome Plated	34 DRK Diffusion resistant Shut-Off Valve 1/4" Tube Brass Chrome Plated	* 300 & 725 psi delivery ranges are not fitted with Relief Valve
					096 CGA 326 Brass Chrome Plated	36 DRK Diffusion resistant Shut-Off Valve 1/4"NPT Male Brass Chrome Plated	
					098 CGA 346 Brass Chrome Plated	39 Control Valve 1/4"NPT Brass Chrome Plated	
					099 CGA 350 Brass Chrome Plated		
					100 CGA 500 Brass Chrome Plated		
					102 CGA 540 Brass Chrome Plated		
					103 CGA 555 Brass Chrome Plated		
					104 CGA 580 Brass Chrome Plated		
					105 CGA 590 Brass Chrome Plated		
					109 CGA 992 Brass Chrome Plated		

Rules: **HPT600** 1) Model number for delivery pressures up to 150 psi
HPT620 1) Model number for 300 and 725 psi delivery pressure
HPT600 & HPS620 1) Inlet Pressure of 4350 psi (option 4) only available with no inlet fitting (option 00 - inlet fittings) and option N (with out relief valve - options) not available

MODEL NO. SELECTOR GUIDE

HPL600-03-02-00-03-000-01-FG

PRODUCT MODEL	INLET PRESSURE	DELIVERY PRESSURE	INLET PRESSURE GAUGE UNIT	DELIVERY PRESSURE GAUGE UNIT	INLET FITTINGS	OUTLET FITTINGS	OPTIONS
HPL600	03 3000 psi	02 0-22 psi	00 No Gauge	00 No Gauge	000 No Inlet Fittings	00 No Outlet Fittings	A No Options
HPL620		03 0-50 psi		03 Bar/PSI	001 1/8" Compression Tube Brass	01 1/8" Compression Tube Brass	F Bonnet Captured Vent Kit
		04 0-90 psi		Plated Brass	003 1/4" Compression Tube Brass	03 1/4" Compression Tube Brass	G Helium Leak Test Certification
		05 0-150 psi			008 1/4" NPT Male Brass Chrome Plated	08 1/4" NPT Male Brass Chrome Plated	L Compliance Certificate
		07 0-300 psi			093 CGA 296 Brass Chrome Plated	32 DRK Diffusion Resistant Shut-Off Valve 1/4" NPT Female Brass Chrome Plated	M Panel Mount Locking Nuts (2 units)
		10 0-725 psi			095 CGA 320 Brass Chrome Plated	33 DRK Diffusion resistant Shut-Off Valve 1/8" Tube Brass Chrome Plated	* All line regulators are supplied with no relief valve fitted
					096 CGA 326 Brass Chrome Plated	34 DRK Diffusion resistant Shut-Off Valve 1/4" Tube Brass Chrome Plated	
					097 CGA 330 Brass Chrome Plated	36 DRK Diffusion resistant Shut-Off Valve 1/4"NPT Male Brass Chrome Plated	
					098 CGA 346 Brass Chrome Plated	39 Control Valve 1/4"NPT Brass Chrome Plated	
					099 CGA 350 Brass Chrome Plated		
					100 CGA 500 Brass Chrome Plated		
					102 CGA 540 Brass Chrome Plated		
					104 CGA 580 Brass Chrome Plated		
					105 CGA 590 Brass Chrome Plated		
					109 CGA 992 Brass Chrome Plated		

Rules: **HPL600** 1) Model number for delivery pressures up to 150 psi
HPL620 1) Model number for 300 and 725 psi delivery pressure