

# GASARC™

AN ESAB® BRAND



## SPEC MASTER HPS600 SERIES

### 6.0 Purity Single Stage Nickel Plated Brass Barstock Diaphragm Cylinder Regulator

Spec Master HPS600 series single stage diaphragm cylinder regulators are designed for primary pressure gas control of non-corrosive or toxic, high purity gases up to grade 6.0 purity (99.9999%), on applications where slight variation from decreasing cylinder pressure is acceptable.

- **HPS600 Series** | Single Stage Diaphragm Cylinder Regulator, FFKM Pressure Relief Valve

### ★ FEATURES

- Six port configuration
- Front and rear panel mounting capabilities
- Encapsulated seat design
- Low wetted surface area
- Full range of inlet and outlet fittings
- Base and side entry

### 📄 MATERIALS

Body	Nickel Plated Brass Barstock
Bonnet	Nickel Plated Brass Barstock
Diaphragm	316L Stainless Steel
Seal	PTFE
Seat	PCTFE
Filter	10 Micron 316L Stainless Steel

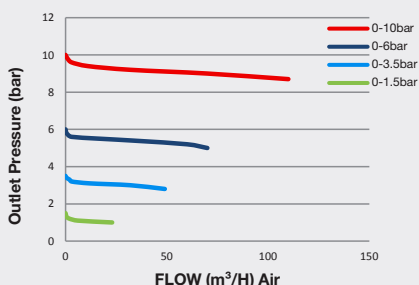
\* Subject to cylinder connection \*\* Cylinder connection not included

### 👍 SPECIFICATION

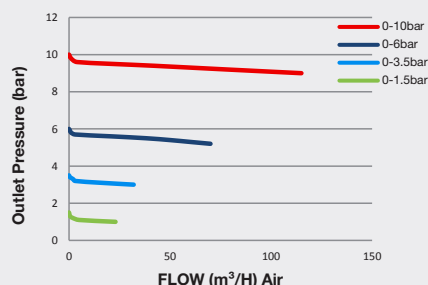
Maximum Inlet Pressure	60 bar (870 PSI) / 300 bar (4350 PSI)*
Delivery Pressure Range	1.5 bar (22 PSI) / 3.5 bar (50 PSI) / 6 bar (90 PSI) / 10 bar (150 PSI)
Gauges	50mm (2") Diameter
Ports	1/4" NPT Female
Temperature Range	-20° C to +60° C (-4° F to +140° F)
Flow Coefficient (Cv)	0.1
Helium leak Integrity	1 x 10 <sup>-9</sup> mbar l/s
Weight	1.2 kg (2.7 lb)**

### ✓ FLOW PERFORMANCE

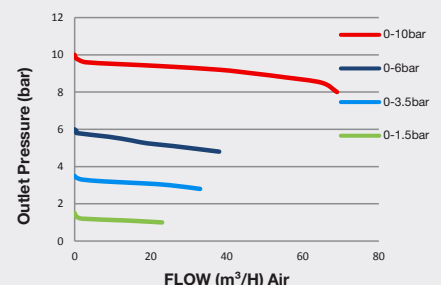
300 bar Inlet Pressure @ 21° C



200 bar Inlet Pressure @ 21° C

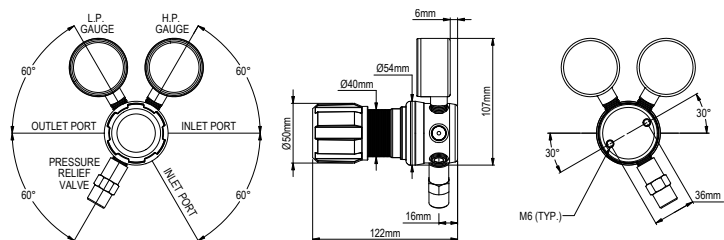


60 bar Inlet Pressure @ 21° C

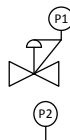
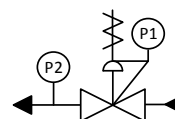




# DIMENSIONS



# PROCESS & INSTRUMENTATION



- Adjustable Pressure Regulator with P1 Pressure Gauge



- Pressure Relief Valve

- P2 Pressure Gauge

## Model No. Selector Guide

Product Type	Inlet Pressure	Outlet Pressure	Inlet Pressure Gauge	Outlet Pressure Gauge	Inlet/Cylinder Connection	Outlet Connection	Options
<b>HPS600</b>	<b>02</b> 60 bar / 870 PSI	<b>02</b> -1 - 1.5 bar / 22 PSIG	<b>00</b> No Gauge Fitted	<b>00</b> No Gauge Fitted	<b>000</b> No Inlet Fitted	<b>00</b> No Outlet Fitted	<b>A</b> No Options Selected
	<b>04</b> 300 bar / 4350 PSI	<b>03</b> -1 - 3.5 bar / 50 PSIG	<b>01</b> bar/PSI	<b>01</b> bar/PSI	<b>001</b> 1/8 Stainless Steel Compression	<b>01</b> 1/8 Stainless Steel Compression	<b>B</b> Regular Tee Purge FKM
		<b>04</b> -1 - 6 bar / 90 PSIG	<b>10</b> Plugged Port	<b>10</b> Plugged Port	<b>002</b> 1/4 Stainless Steel Compression	<b>02</b> 1/4 Stainless Steel Compression	<b>C</b> Regular Tee Purge EPDM
		<b>05</b> -1 - 10 bar / 150 PSIG			<b>003</b> 6mm Stainless Steel Compression	<b>03</b> 6mm Stainless Steel Compression	<b>F</b> Bonnet Vent Capture Kit
					<b>004</b> 1/4 NPT Male	<b>04</b> 1/4 NPT Male	<b>G</b> Helium Test Certificate
					<b>007</b> G3/8 BSP R/H Brass Male	<b>07</b> G3/8 BSP R/H Brass Male	<b>K</b> Certificate of Conformity
					<b>008</b> G3/8 BSP L/H Brass Male	<b>08</b> G3/8 BSP L/H Brass Male	<b>L</b> Panel Mount Locking Nut Kit
					<b>010</b> BS341 No.3	<b>09</b> Isolation Valve, 1/4 NPT Female, FKM Seal	<b>P</b> Calibration / Pressure Test Certificate
					<b>012</b> BS341 No.4	<b>10</b> Isolation Valve, 1/4 NPT Female, EPDM Seal	<b>X</b> Special Instruction
					<b>015</b> BS341 No.8	<b>11</b> Isolation Valve, 1/8 Stainless Steel Compression, FKM Seal	
					<b>030</b> DIN477 No.6	<b>12</b> Isolation Valve, 1/8 Stainless Steel Compression, EPDM Seal	
					<b>033</b> DIN477 No.9	<b>13</b> Isolation Valve, 1/4 Stainless Steel Compression, FKM Seal	
					<b>034</b> DIN477 No. 10	<b>14</b> Isolation Valve, 1/4 Stainless Steel Compression, EPDM Seal	
					<b>045</b> CGA320	<b>15</b> Isolation Valve, 6mm Stainless Steel Compression, FKM Seal	
					<b>052</b> CGA540	<b>16</b> Isolation Valve, 6mm Stainless Steel Compression, EPDM Seal	
					<b>053</b> CGA580	<b>17</b> Isolation Valve, 1/4 NPT Male, FKM Seal	
					For our full range of cylinder connections refer to 'Cylinder Connections Data'	<b>18</b> Isolation Valve, 1/4 NPT Male, EPDM seal	
						<b>19</b> Isolation Valve, G3/8 BSP R/H Brass Male, FKM Seal	
						<b>20</b> Isolation Valve, G3/8 BSP R/H Brass Male, EPDM Seal	
						<b>21</b> Isolation Valve, G3/8 BSP L/H Brass Male, FKM Seal	
						<b>22</b> Isolation Valve, G3/8 BSP L/H Brass Male, EPDM Seal	

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## SPEC MASTER HPS620 SERIES

### 6.0 Purity Single Stage Nickel Plated Brass Barstock Piston Cylinder Regulator

Spec Master HPS620 series single stage piston cylinder regulators are designed for primary pressure gas control of non-corrosive or toxic, high purity gases up to grade 6.0 purity (99.9999%), on applications where slight variation from decreasing cylinder pressure is acceptable.

- **HPS621 Series** | Single Stage Piston Cylinder Regulator, FKM Seal
- **HPS622 Series** | Single Stage Piston Cylinder Regulator, EPDM Seal

### ★ FEATURES

- Six port configuration
- Front and rear panel mounting capabilities
- Encapsulated seat design
- Low wetted surface area
- Full range of inlet and outlet fittings
- Base and side entry

### 📄 MATERIALS

Body	Nickel Plated Brass Barstock
Bonnet	Nickel Plated Brass Barstock
Piston	Brass
Seal	FKM / EPDM
Seat	PCTFE
Filter	10 Micron 316L Stainless Steel

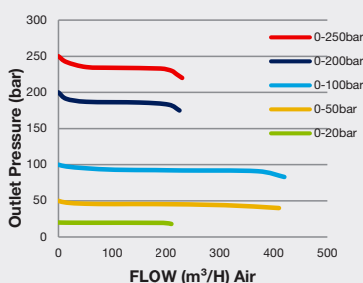
\* Subject to cylinder connection \*\* Cylinder connection not included

### 👍 SPECIFICATION

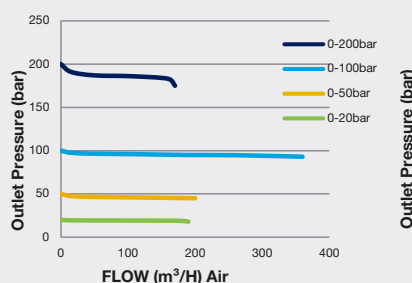
Maximum Inlet Pressure	60 bar (870 PSI) / 300 bar (4350 PSI)*
Delivery Pressure Range	20 bar (300 PSI) / 50 bar (725 PSI) / 100 bar (1450 PSI) / 200 bar (2900 PSI) / 250 bar (3630 PSI)
Gauges	50mm (2") Diameter
Ports	1/4" NPT Female
Temperature Range	-20° C to +60° C (-4° F to +140° F)
Flow Coefficient (Cv)	0.1
Helium leak Integrity	1 x 10 <sup>-9</sup> mbar l/s
Weight	1.4 kg (3.1 lb)**

### ✓ FLOW PERFORMANCE

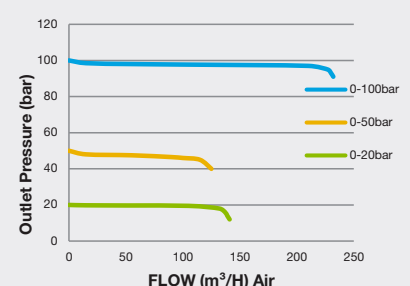
300 bar Inlet Pressure @ 21° C



200 bar Inlet Pressure @ 21° C

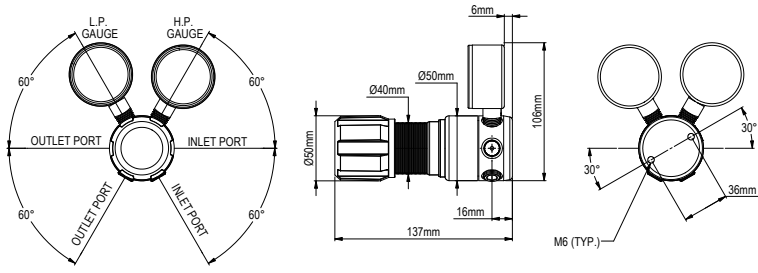


100 bar Inlet Pressure @ 21° C

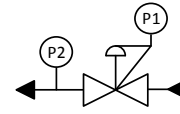




# DIMENSIONS



# PROCESS & INSTRUMENTATION



- Adjustable Pressure Regulator with P1 Pressure Gauge



- P2 Pressure Gauge

## Model No. Selector Guide

Product Type	Inlet Pressure	Outlet Pressure	Inlet Pressure Gauge	Outlet Pressure Gauge	Inlet/Cylinder Connection	Outlet Connection	Options
HPS621	02 60 barr / 870 PSI	07 -1 - 20 bar / 300 PSI	00 No Gauge Fitted	00 No Gauge Fitted	000 No Inlet Fitted	00 No Outlet Fitted	A No Options Selected
HPS622	04 300 bar / 4350 PSI	10 -1 - 50 bar / 725 PSI	01 bar/PSI	01 bar/PSI	001 1/8 Stainless Steel Compression	01 1/8 Stainless Steel Compression	B Regular Tee Purge FKM
		11 0 - 100 bar / 1450 PSI	10 Plugged Port	10 Plugged Port	002 1/4 Stainless Steel Compression	02 1/4 Stainless Steel Compression	C Regular Tee Purge EPDM
		12 0 - 200 bar / 2900 PSI			003 6mm Stainless Steel Compression	03 6mm Stainless Steel Compression	F Bonnet Vent Capture Kit
		13 0 - 250 bar / 3630 PSI			004 1/4 NPT Male	04 1/4 NPT Male	G Helium Test Certificate
					007 G3/8 BSP R/H Brass Male	07 G3/8 BSP R/H Brass Male	K Certificate of Conformity
					008 G3/8 BSP L/H Brass Male	08 G3/8 BSP L/H Brass Male	L Panel Mount Locking Nut Kit
					010 BS341 No.3	09 Isolation Valve, 1/4 NPT Female, FKM Seal	P Calibration / Pressure Test Certificate
					012 BS341 No.4	10 Isolation Valve, 1/4 NPT Female, EPDM Seal	X Special Instruction
					015 BS341 No.8	11 Isolation Valve, 1/8 Stainless Steel Compression, FKM Seal	
					030 DIN447 No.6	12 Isolation Valve, 1/8 Stainless Steel Compression, EPDM Seal	
					033 DIN447 No.9	13 Isolation Valve, 1/4 Stainless Steel Compression, FKM Seal	
					034 DIN447 No.10	14 Isolation Valve, 1/4 Stainless Steel Compression, EPDM Seal	
					045 CGA320	15 Isolation Valve, 6mm Stainless Steel Compression, FKM Seal	
					052 CGA540	16 Isolation Valve, 6mm Stainless Steel Compression, EPDM Seal	
			053 CGA580	17 Isolation Valve, 1/4 NPT Male, FKM Seal			
				18 Isolation Valve, 1/4 NPT Male, EPDM Seal			
				19 Isolation Valve, G3/8 BSP R/H Brass Male, FKM Seal			
				20 Isolation Valve, G3/8 BSP R/H Brass Male, EPDM Seal			
				21 Isolation Valve, G3/8 BSP L/H Brass Male, FKM Seal			
				22 Isolation Valve, G3/8 BSP L/H Brass Male, EPDM Seal			

For our complete range of cylinder connections refer to 'Cylinder Connection Data'