

GO REGULATOR

DL-50

Dome Loaded Pressure Regulator



The DL-50 is a compact and robust design which employs a unique “Dual Piston” set up that enables the users to control pressures up to 6,000 psig with as little as 100 psig of dome pressure. All of this is accomplished within the smallest envelope the industry has to offer.

The regulator portion of this unit was patterned after the time tested PR-50 Series, which is widely recognized as a benchmark of performance and quality. Offering the utmost in economy and safety, this unit is constructed from 316L stainless steel. A carefully engineered diaphragm/piston sensor unit offers good sensitivity and repeatability.

Completing this design is the addition of an anodized aluminum (316 stainless steel optional) dome unit. The inlet ring to the dome is freely rotating and captured by a high tensile snap ring. This feature allows easy positioning and alignment of the dome gas line within a customer's system while maintaining excellent leak integrity.

Features & Specifications Applications

- | | |
|--|---|
| <ul style="list-style-type: none">• Gas or liquid service• 316L stainless steel construction; brass and Monel optional• Better than 25 Ra finish in diaphragm cavity• 20 micron inlet filter• Bubble tight shutoff• Dome ratios 11.5:1, 20:1• Inlet/outlet ports 1/4" FNPT (Standard)• Diaphragm type sensing• Remote dome loading• C_v flow coefficients: 0.025, 0.06, 0.2• Outlet pressures upto 2000 psig | <ul style="list-style-type: none">• Pilot plant• Off-shore oil and gas rigs• Pneumatic test benches• Component testing• R and D systems• High pressure booster systems |
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DL-50

Dome Loaded Pressure Regulator

How to Order

See page 9 for standard configurations. For additional configurations, consult factory.
See page 13 for port locations.

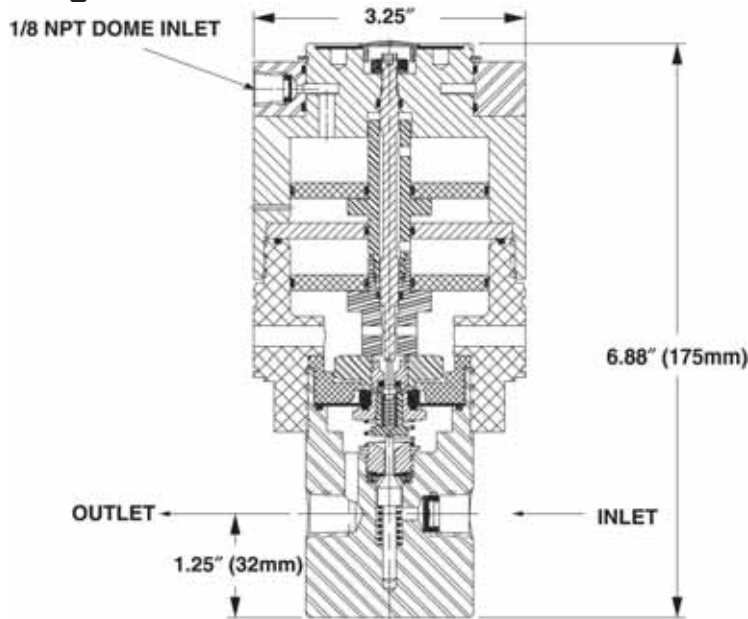
Maximum Temperature & Operating Inlet Pressures

Nylon Diaphragm Backing			
Seat Material	Maximum Temperature	@	Maximum Operating Inlet Pressure
Tefzel®	150° F (66° C)	@	3600 psig (24.82 MPa)
High Density Teflon®	150° F (66° C)	@	3600 psig (24.82 MPa)
PCTFE (Formerly Kel-F-81)	175° F (80° C)	@	6000 psig (41.37 MPa)
Polyimide	175° F (80° C)	@	6000 psig (41.37 MPa)
PEEK	175° F (80° C)	@	6000 psig (41.37 MPa)

Teflon Diaphragm Backing			
Seat Material	Maximum Temperature	@	Maximum Operating Inlet Pressure
Tefzel®	150° F (66° C)	@	3600 psig (24.82 MPa)
High Density Teflon®	150° F (66° C)	@	3600 psig (24.82 MPa)
PCTFE (Formerly Kel-F-81)	175° F (80° C)	@	6000 psig (41.37 MPa)
Polyimide	350° F (177° C)	@	6000 psig (41.37 MPa)
PEEK	350° F (177° C)	@	6000 psig (41.37 MPa)

Tefzel® and Teflon® are registered trademarks of Dupont.

Outline and Mounting Dimensions



Weight - 5.1 lbs (2.31 kg)

GO REGULATOR

DL-56

Dome Loaded Pressure Regulator



The DL-56 is a compact and robust design which employs a unique “Dual Piston” set up that enables the users to control pressures up to 6,000 psig with as little as 40 psig of dome pressure. All of this is accomplished within the smallest envelope the industry has to offer.

The regulator portion of this unit was patterned after the time tested PR-56 Series, which is widely recognized as a benchmark of performance and quality. Offering the utmost in economy and safety, this unit is constructed from brass alloy 360. A carefully engineered all 316L stainless steel piston sensor unit offers good sensitivity and repeatability. An independent test was run and showed that the unit’s ability to repeat to a set point and low operating hysteresis is unsurpassed through out the industry.

Completing this design is the addition of an anodized aluminum (316 stainless steel optional) dome unit. The inlet ring to the dome is freely rotating and captured by a high tensile snap ring. This feature allows easy positioning and alignment of the dome gas line within a customer’s system while maintaining excellent leak integrity.

Features & Specifications Applications

- | | |
|---|---|
| <ul style="list-style-type: none">• Gas or liquid service• Brass (alloy 360) construction• Better than 25 Ra finish in diaphragm cavity• Stainless steel piston sensor• 20 micron inlet filter• Bubble tight shutoff• Dome ratios 11:1, 20:1, 43:1, 56:1, 76:1, 108:1, 122:1 and 172:1• C_v flow coefficients 0.05, 0.20• Inlet/outlet ports 1/4" FNPT (standard)• Remote dome loading• Outlet pressures up to 6000 psig | <ul style="list-style-type: none">• Pilot plant• Off-shore oil and gas rigs• Pneumatic test benches• Component testing• R and D systems• High pressure booster systems |
|---|---|

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DL-56

Dome Loaded Pressure Regulator

How to Order

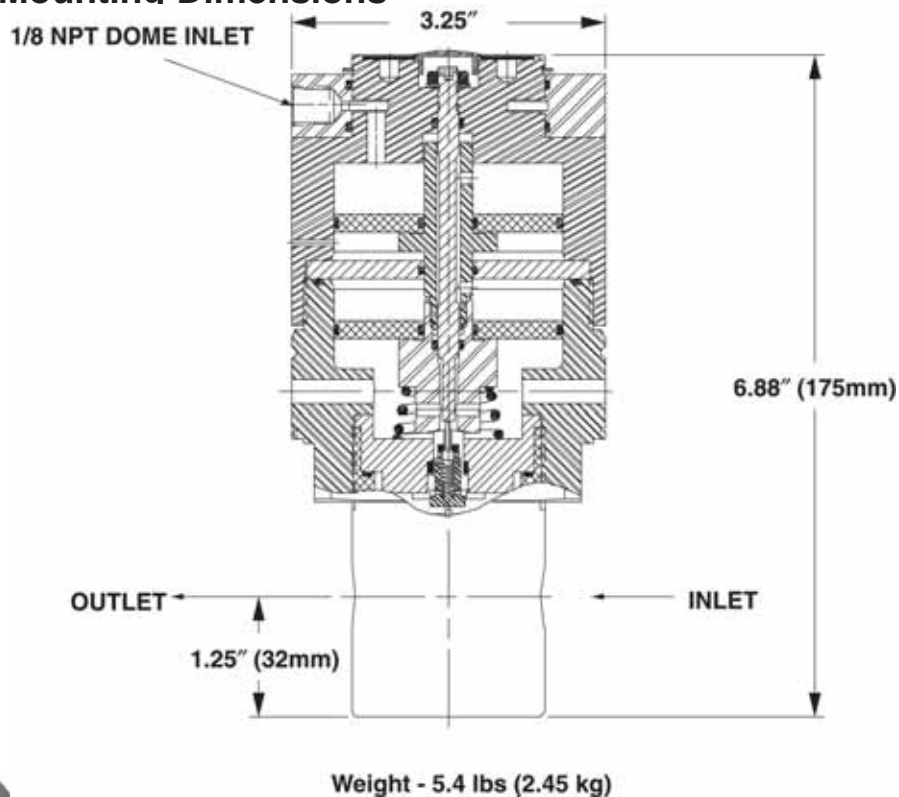
See page 10 for standard configurations. For additional configurations, consult factory.
See page 13 for port locations.

Maximum Temperature & Operating Inlet Pressures

Seat Material	Maximum Temperature	@	Maximum Operating Inlet Pressure
Tefzel®	150° F (66° C)	@	3600 psig (24.82 MPa)
High Density Teflon®	150° F (66° C)	@	3600 psig (24.82 MPa)
PCTFE (Formerly Kel-F-81)	175° F (80° C)	@	6000 psig (41.37 MPa)
Polyimide	175° F (80° C)	@	6000 psig (41.37 MPa)
PEEL	175° F (80° C)	@	6000 psig (41.37 MPa)

Tefzel® and Teflon® are registered trademarks of Dupont.

Outline and Mounting Dimensions



For flow curve charts, go to www.goreg.com/catalog/pr/dome/dl56/dl56_flow.htm.

GO REGULATOR

DL-57

Dome Loaded Pressure Regulator



The DL-57 is a compact and robust design which employs a unique “Dual Piston” set up that enables the users to control pressures up to 10,000 psig with as little as 58 psig of dome pressure. All of this is accomplished within the smallest envelope the industry has to offer.

The regulator portion of this unit was patterned after the time tested PR-57 Series, which is widely recognized as a benchmark of performance and quality. Offering the utmost in safety and corrosion prevention, this unit is constructed from 316L stainless steel. A carefully engineered piston sensor unit offers good sensitivity and repeatability. An independent test was run and showed that the unit's ability to repeat to a set point and low operating hysteresis is unsurpassed through out the industry.

Completing this design is the addition of an anodized aluminum (316 stainless steel optional) dome unit. The inlet ring to the dome is freely rotating and captured by a high tensile snap ring. This feature allows easy positioning and alignment of the dome gas line within a customer's system while maintaining excellent leak integrity.

Features & Specifications Applications

- | | |
|--|---|
| <ul style="list-style-type: none">• Gas or liquid service• 316L stainless steel construction; Monel optional• Better than 25 Ra finish in diaphragm cavity• Stainless steel piston sensor• 20 micron inlet filter• Bubble tight shutoff• Dome ratios 11:1, 20:1, 43:1, 56:1, 76:1, 108:1, 122:1 and 172:1• C_v flow coefficients 0.05, 0.20• Inlet/outlet ports 1/4" FNPT (standard)• Remote dome loading• Optional pressures up to 10,000 psig | <ul style="list-style-type: none">• Pilot plant• Off-shore oil and gas rigs• Pneumatic test benches• Component testing• R and D systems• High pressure booster systems |
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DL-57

Dome Loaded Pressure Regulator

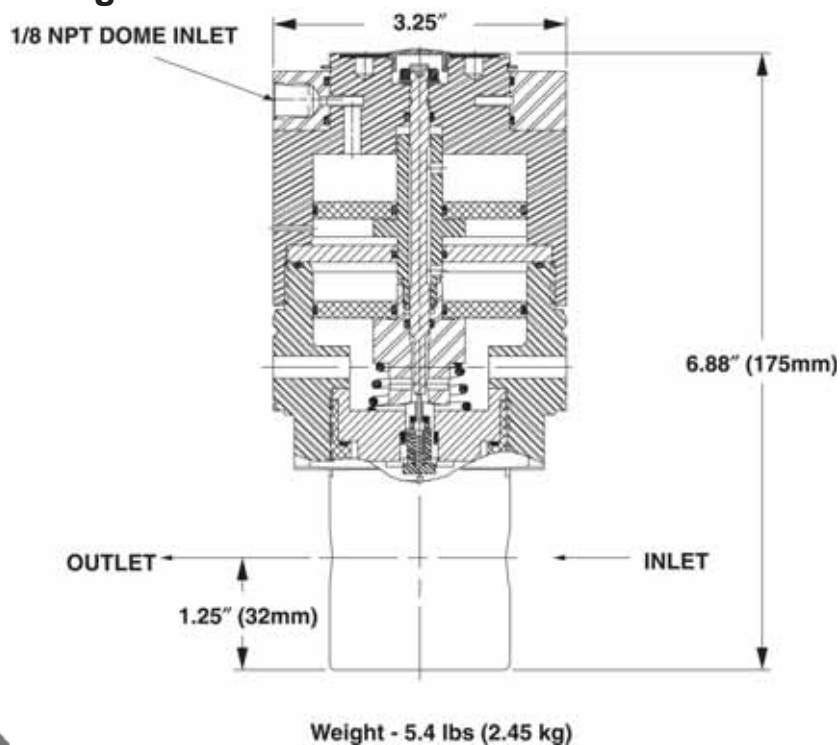
How to Order

See page 11 for standard configurations. For additional configurations, consult the factory.
See page 13 for port locations.

Maximum Temperature & Operating Inlet Pressures

Seat Material	Maximum Temperature	@	Maximum Operating Inlet Pressure
Polyimide	150° F (66° C)	@	10,000 psig (68.95 MPa)
PEEK	150° F (66° C)	@	10,000 psig (68.95 MPa)

Outline and Mounting Dimensions



For flow curve charts, go to www.goreg.com/catalog/pr/dome/dl57/dl57_flow.htm.

GO REGULATOR

DL-59

Dome Loaded Pressure Regulator



Responding to the needs of the industry for a simple, safe and effective way to remotely load high pressure regulators, GO Regulator designed and developed a line of low profile dome loading units.

This compact and robust design employs a unique "Dual Piston" set up which enables the user to control pressures up to 4,000 psig with as little as 36 psig of dome pressure. All of this is accomplished within the smallest envelope the industry has to offer!

The regulator portion of this unit was patterned after the time tested PR-59 Series, which is widely recognized as a benchmark of performance and quality. Offering the utmost in safety and corrosion prevention, this unit is constructed from 316L stainless steel. A carefully engineered piston sensor unit offers good sensitivity and repeatability. This is coupled with the large C_v of the PR-59 of 1.20.

Completing this design is the addition of an anodized aluminum (316 stainless steel optional) dome unit. The inlet ring to the dome is freely rotating and captured by a high tensile snap ring. This feature allows easy positioning and alignment of the dome gas line within a customer's system while maintaining excellent leak integrity.

Features & Specifications Applications

- | Features & Specifications | Applications |
|---|--|
| <ul style="list-style-type: none">• Gas or liquid service• 316L stainless steel construction (brass & Monel optional)• Better than 25 Ra finish in diaphragm cavity• Stainless steel piston sensor• C_v of 1.20 is standard• 20 micron inlet filter• Bubble tight shutoff• Dome ratios are 11:1, 20:1, 43:1, 56:1, 76:1, 108:1, 122:1, and 172:1• Outlet pressures up to 4000 psig | <ul style="list-style-type: none">• Pilot plant• Pneumatic high flow test benches• Bulk gas delivery• R & D systems |

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DL-59

Dome Loaded Pressure Regulator

How to Order

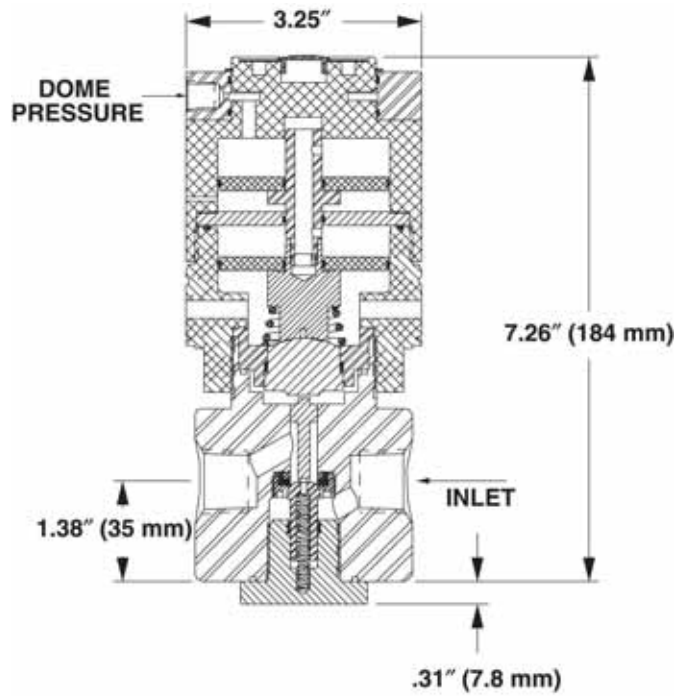
See page 12 for standard configurations. For additional Configurations, consult the factory.
See page 13 for port locations.

Maximum Temperature & Operating Inlet Pressures

Seat Material	Maximum Temperature	@	Maximum Operating Inlet Pressure
PCTFE (formerly Kel-F 81®)	175° F (80° C)	@	4000 psig (27.58 MPa)
Teflon®	150° F (66° C)	@	1000 psig (6.90 MPa)

Tefzel® and Teflon® are registered trademarks of Dupont.

Outline and Mounting Dimensions



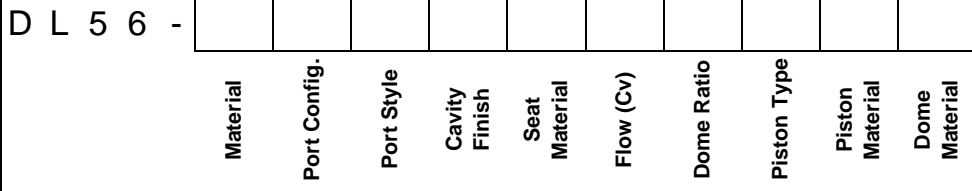
Material of Body				
1	SS 316L			
2	Brass			
4	Monel			
Port Configuration (see page 13) STANDARD BODY "A" (ONE INLET PORT AND ONE OUTLET PORT)				
A				
Process port types (gauge port type, if specified)				
1	1/4" FNPT (1/4" FNPT Gauge Ports)			
2	1/4" Tube (1/4" Tube Gauge Ports)			
4	3/8" FNPT (1/4" FNPT Gauge Ports)			
7	AN 10050-4 (1/4" FNPT Gauge Ports)			
8	SAE J514 (1/4" FNPT Gauge Ports)			
9	M/S 33649 (1/4" FNPT Gauge Ports)			
F	1/4" Aminco (1/4" FNPT Gauge Ports)			
K	1/4" Sch 40 Pipe (1/4" FNPT Gauge Ports)			
Surface Finish of Diaphragm Cavity				
1	<25 Ra			
5	<25 Ra with 10-32 Mounting Holes			
Seat Material				
A	Tefzel			
C	Polyimide			
H	PCTFE (formerly Kel-F 81)			
I	High Density Teflon			
Q	PEEK			
Flow Coefficient (Cv)				
3	0.06			
5	0.2			
C	0.025			
Dome Ratio				
1	11.5 : 1			
2	20 : 1			
Diaphragm Type				
1	Non Self Relieving			
3	Self Relieving			
Diaphragm Facing / Backing				
	Facing	Backing	O-Rings	Actuator
1	SS	Nylon	Viton	SS
2	None	Nylon	Teflon	SS
3	Polyimide	Nylon	Viton	SS
4	SS	Nylon	Viton	SS
5	None	Nylon	Teflon	Monel
6	Polyimide	Nylon	Teflon	SS
7	Inconel	Nylon	Viton	Monel
8	Inconel	Nylon	Teflon	Monel
B	None	Nylon	Viton	Monel
H	None	Nylon	Viton	SS
Q	SS	Teflon	Teflon	SS
V	Inconel	Teflon	Teflon	Monel
Dome Style				
1	Standard, Aluminum			
2	Captured Vent, Aluminum			
3	S.S.			
4	Captured Vent, S.S.			

DL50 -

Material	Port Config.	Port Style	Cavity Finish	Seat Material	Flow (Cv)	Control Range	Diaphragm Type	Diaphragm Material	Cap Assembly
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DL-56 Series - Pressure Reducing Regulator

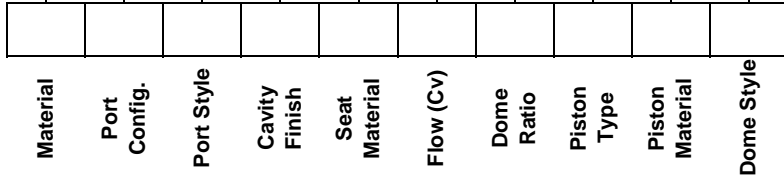
2		Brass		Material of Body	
A				Port Configuration (see page 13) STANDARD BODY "A" (ONE INLET PORT AND ONE OUTLET PORT)	
				Process port types (gauge port type, if specified)	
1	1/4" FNPT (1/4" FNPT Gauge Ports)				
4	3/8" FNPT (1/4" FNPT Gauge Ports)				
7	AN 10050-4 (1/4" FNPT Gauge Ports)				
8	SAE J514 (1/4" FNPT Gauge Ports)				
9	M/S 33649 (1/4" FNPT Gauge Ports)				
F	1/4" Aminco (1/4" FNPT Gauge Ports)				
				Surface Finish of Diaphragm Cavity	
1	<25 Ra				
5	<25 Ra with 10-32 Mounting Holes				
				Seat Material	
A	Tefzel				
C	Polyimide				
H	PCTFE (formerly Kel-F 81)				
I	High Density Teflon				
Q	PEEK				
				Flow Coefficient (Cv)	
2	0.05				
5	0.2				
				Dome Ratio	
0	11 : 1				
1	43 : 1				
2	56 : 1				
3	76 : 1				
4	108 : 1				
5	122 : 1				
6	172 : 1				
7	20 : 1				
				Piston Type	
1	Non Self Relieving / Viton Cavity O-Ring				
2	Non Self Relieving / Teflon Cavity O-Ring				
3	Self Relieving / Viton Cavity O-Ring				
4	Self Relieving / Teflon Cavity O-Ring				
				Piston Material	
1	Stainless Steel				
				Dome Material	
1	Standard, Aluminum				
2	Captured Vent, Aluminum				
3	S.S.				
4	Captured Vent, S.S.				



DL-57 Series - Pressure Reducing Regulator

Material of Body	
1	SS 316L
4	Monel
Port Configuration (see page 13) STANDARD BODY "A" (ONE INLET PORT AND ONE OUTLET PORT)	
A	
Process port types (gauge port type, if specified)	
1	1/4" FNPT (1/4" FNPT Gauge Ports)
2	1/4" Tube (1/4" Tube Gauge Ports)
4	3/8" FNPT (1/4" FNPT Gauge Ports)
7	AN 10050-4 (1/4" FNPT Gauge Ports)
8	SAE J514 (1/4" FNPT Gauge Ports)
9	M/S 33649 (1/4" FNPT Gauge Ports)
F	1/4" Aminco (1/4" FNPT Gauge Ports)
K	1/4" Sch 40 Pipe (1/4" FNPT Gauge Ports)
Surface Finish of Diaphragm Cavity	
1	<25 Ra
5	<25 Ra with 10-32 Mounting Holes
Seat Material	
C	Polyimide
Q	PEEK
Flow Coefficient (Cv)	
2	0.05
5	0.2
Dome Ratio	
0	11 : 1
1	43 : 1
2	56 : 1
3	76 : 1
4	108 : 1
5	122 : 1
6	172 : 1
7	20 : 1
Piston Type	
1	Non Self Relieving / Viton Cavity O-Ring
2	Non Self Relieving / Teflon Cavity O-Ring
3	Self Relieving / Viton Cavity O-Ring
4	Self Relieving / Teflon Cavity O-Ring
Piston Material	
1	SS
4	Monel
Dome Style	
1	Standard, Aluminum
2	Captured Vent, Aluminum
3	S.S.
4	Captured Vent, S.S.

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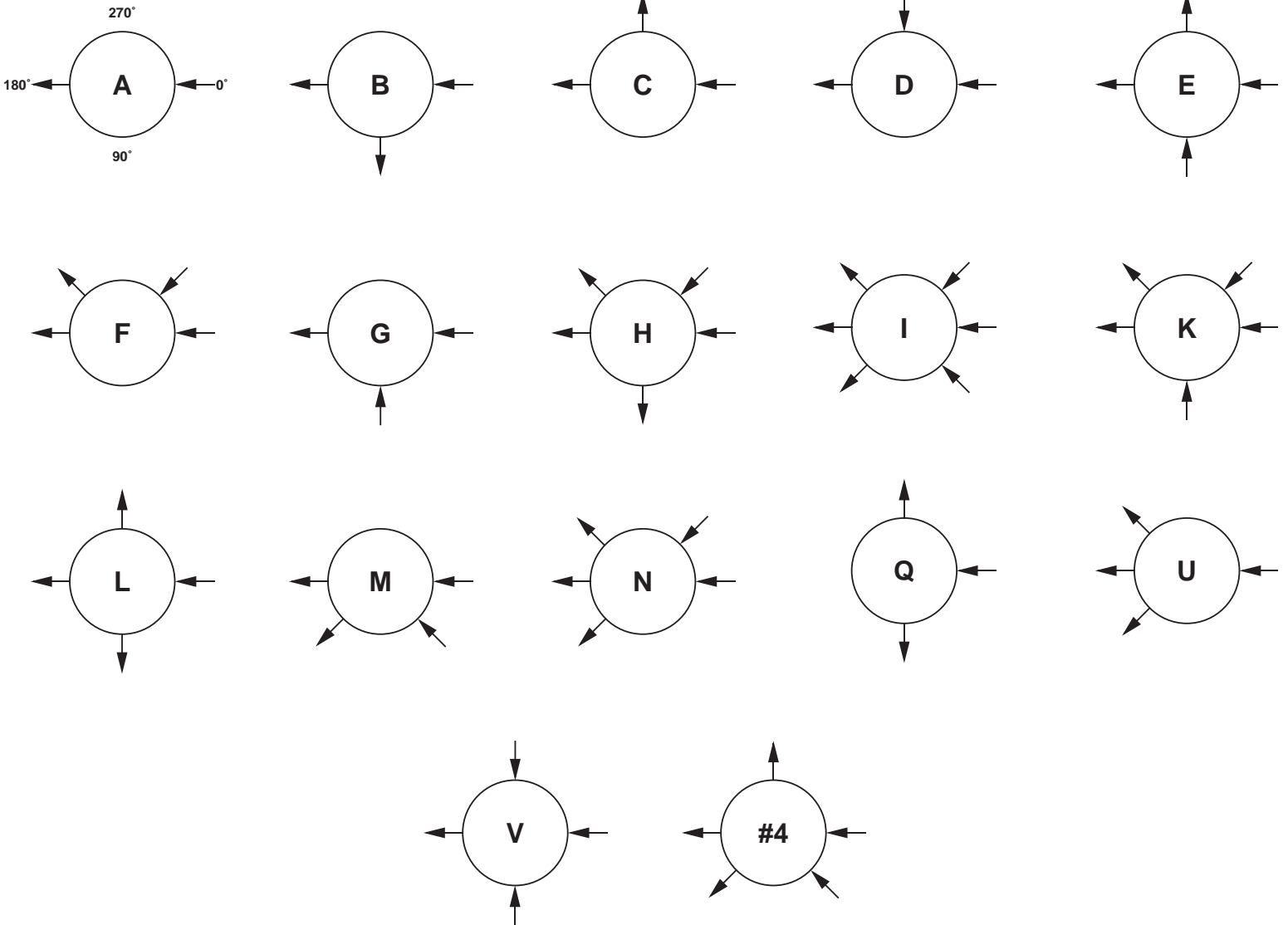
DL-59 Series - Pressure Reducing Regulator

Material of Body									
1	SS 316L								
2	Brass								
4	Monel								
Port Configuration (see page 13) STANDARD BODY "A" (ONE INLET PORT AND ONE OUTLET PORT)									
Process port types (gauge port type, if specified)									
5	1/2" FNPT (1/4" FNPT Gauge Ports)								
A	3/4" FNPT (1/4" FNPT Gauge Ports)								
B	3/4" ISO 7 Parallel (1/4" FNPT Gauge Ports)								
Surface Finish of Diaphragm Cavity									
1	<25 Ra								
Seat Material									
H	PCTFE (formerly Kel-F 81)								
I	Teflon								
Flow Coefficient (Cv)									
9	1.2								
Dome Ratio									
0	11 : 1								
1	43 : 1								
2	56 : 1								
3	76 : 1								
4	108 : 1								
5	122 : 1								
6	172 : 1								
7	20 : 1								
Piston Type									
1	Non Self Relieving								
3	Self Relieving								
Piston Material									
5	Stainless Steel								
B	Monel								
Dome Style									
1	Standard, Aluminum								
2	Captured Vent, Aluminum								
3	S.S.								
4	Captured Vent, S.S.								

DL59 -



SINGLE STAGE PRESSURE REDUCING & BACK PRESSURE PORTING CONFIGURATIONS



**ARROW POINTING TOWARD BODY IS INLET
ARROW POINTING AWAY FROM BODY IS OUTLET**