



CRYOGENIC SERIES

Regulators, Pressure Gauges, Shut-off Valves, Safety Valves

Technology for a Better Future

GENTEC® CRYOGENIC SERIES

Cryogenic Shut-off Valves

Cryogenic Safety Valves

Cryogenic Gauges

Cryogenic Regulators



LC856 SERIES HEAVY DUTY GAS LINE REGULATOR

is designed for final line pressure regulation and suitable for high flow gas distribution systems. Specially designed configurations ensure high flow at low pressure setting without condensation.

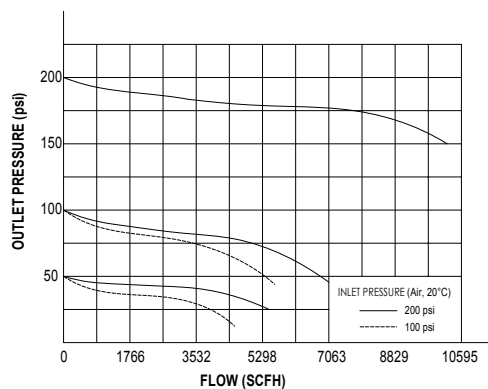
FEATURES

- Single-stage construction
- Bonnet and body are made of forged stainless steel
- Operating temperature: -320 ~ 140°F (-196 ~ 60°C)
- Integrated diaphragm configuration ensures no-leak seal
- Internal filter
- Conform to CGA G-4.1 standard for cleaning components
- oxygen compatible

MATERIALS

- Bonnet: SUS 304
- Body: SUS 304
- Seat: PTFE
- Diaphragm: 316L

FLOW CHART



Model Number	Maximum Inlet Pressure psi (MPa)	Maximum Outlet Pressure psi (MPa)	Inlet / Outlet Connection
LC865-50	435 (3)	50 (0.35)	G 1"
LC865-125	435 (3)	123 (0.85)	G 1"
LC865-200	3 (435)	1.4 (203)	G 1"

853LCR SERIES SINGLE STAGE LIQUID CYLINDER REGULATORS

853LCR Series Liquid Cylinder Regulator are specially designed for gaseous withdrawal from liquid cylinders of Oxygen, Carbon Dioxide and Nitrogen.

Not for use on high pressure cylinders.

FEATURES

- Vapor side application on liquid cylinders or vessels
- 0-125 psi delivery pressure
- 500 psi maximum inlet pressure
- Large 2-3/4" stainless steel diaphragm
- High pressure side 500 psi external pressure relief valve
- Forged brass body and housing cap
- Delrin-bushing housing cap for smooth pressure adjustment
- Stem-type seat assembly for more reliable performance
- Sintered bronze inlet filter
- 2-1/2" dual scale outlet gauge
- Conforms to CGA E-4 Standard for Gas Pressure Regulators



Gas Service	Model Number	Maximum Inlet Pressure psi (MPa)	Maximum Delivery Pressure psi (MPa)	Inlet Gauge	Outlet Gauge	Inlet Connection	Outlet Connection
OXYGEN	853LCRX-125	500 (3.45)	5~125 (0.035~0.87)	NONE	2-1/2" , 200 psi	CGA540	9/16"-18RH(M)
NITROGEN	853LCRIN-125	500 (3.45)	5~125 (0.035~0.87)	NONE	2-1/2" , 200 psi	CGA580	5/8"-18RH(F)
CARBON DIOXIDE	853LCRCD-125	500 (3.45)	5~125 (0.035~0.87)	NONE	2-1/2" , 200 psi	CGA320	5/8"-18RH(F)

LC851 SERIES REGULATOR is available in three functions: pressure build, economizer, and combination pressure build/economizer.

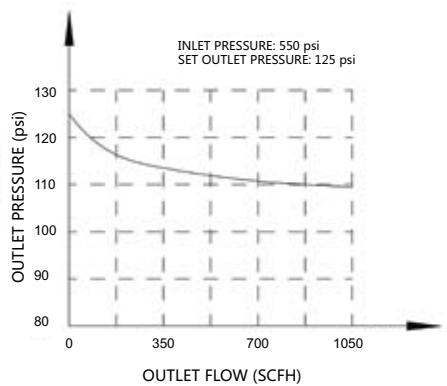
FEATURES

- Pressure build regulator and combination regulator are used to maintain pressure within cryogenic container
- Interchangeable with most cryogenic regulators,
- Compact design allows easy installation in confined area
- Conforms to CGA G-4.1 for cleaning components,
- oxygen compatible

MATERIALS

- Bonnet: Brass
- Body: Brass
- Seat: PTFE
- Pressure Adjusting Spring: Stainless Steel
- Diaphragm: PTFE

FLOW CHART



Cryogenic Build Regulator

Model Number	Maximum Pressure psi (MPa)	Operating Temperature °F (°C)	Inlet / Outlet Connection	Set Pressure psi (MPa)	Pressure Range psi (MPa)
LC851-125	550 (3.8)	-320~165 (-196~74)	1/4" NPT(F)	125 (0.85)	25~250 (0.17~1.7)
LC851-300	550 (3.8)	-320~165 (-196~74)	1/4" NPT(F)	300 (2.1)	125~350 (0.85~2.4)

Cryogenic Economizers Regulator

Model Number	Maximum Pressure psi (MPa)	Operating Temperature °F (°C)	Inlet / Outlet Connection	Set Pressure psi (MPa)	Pressure Range psi (MPa)
LCE851-22	550 (3.8)	-320~165 (-196~74)	1/4" NPT(F)	22 (0.15)	10~150 (0.07~1.03)
LCE851-70	550 (3.8)	-320~165 (-196~74)	1/4" NPT(F)	70 (0.50)	10~150 (0.07~1.03)
LCE851-140	550 (3.8)	-320~165 (-196~74)	1/4" NPT(F)	140 (0.97)	10~150 (0.07~1.03)
LCE851-325	550 (3.8)	-320~165 (-196~74)	1/4" NPT(F)	325 (2.24)	150~350 (1.03~2.40)

Cryogenic Pressure Build / Economizer Regulator

Model Number	Maximum Pressure psi (MPa)	Operating Temperature °F (°C)	Inlet / Outlet Connection	Set Pressure psi (MPa)	Pressure Range psi (MPa)
LCC851-125	550 (3.8)	-320~165 (-196~74)	1/4" NPT(F)	125 (0.85)	25~250 (0.17~1.7)
LCC851-300	550 (3.8)	-320~165 (-196~74)	1/4" NPT(F)	300 (2.1)	150~350 (1.03~2.4)
LCC851-325	550 (3.8)	-320~165 (-196~74)	1/4" NPT(F)	325 (2.24)	150~350 (1.03~2.4)

V902 SERIES CRYOGENIC SHUT-OFF VALVE

is used on the cryogenic liquid cylinders or cryogenic piping systems as inline shut-off valve



FEATURES

- Compact, easy to install in confined space
- Robust exterior designed to prevent humidity and condensation
- Conical swivel seal design to protect the seat from galling due to over-torquing
- Maximum operating pressure: 600 psi (4.14 MPa)
- Operating temperature: -321 ~ 165°F (-196 ~ 74°C)
- Conforms to CGA G-4.1 standard for cleaning components
- oxygen compatible

MATERIALS

- Bonnet: Brass
- Body: Brass
- Inlet Tube: Stainless Steel
- Outer Seal: PTFE
- Inner Seal: PCTFE
- Handwheel: Aluminum
- Spring: Stainless Steel



Shut-off valve with inlet tube

Model Number	Inlet Connection	Outlet Connection	Diameter (in.)	Inlet Tube Length	Max Cv
V902	3/8" NPT (F)	3/8" NPT (F)	0.393	N / L	0.98
V902A	ø16x1.5 mm	3/8" NPT (F)	0.393	1-1/8"	0.98
V902B	ø16x1.5 mm	3/8" NPT (F)	0.393	2-1/8"	0.98
V902C	ø16x1.5 mm	3/8" NPT (F)	0.393	3-1/8"	0.98

CRYOGENIC RELIEF VALVE, designed for cryogenic gases, can be used in pipeline systems, cryogenic cylinders, or small cryogenic tanks. When the pressure in the system surpasses the preset pressure in the relief valve, the valve will automatically relieve the pressure from system.

FEATURES

- Safety valve will open when system pressure reaches the preset level and reseal when the system pressure falls below the preset level (95%)
- Operating temperature: -321 ~ 165°F (-196 ~ 74°C)
- Available set pressure: 22 ~ 500 psi (0.15 ~ 3.45 MPa)
- Self reseating
- Conform to CGA G-4.1 standard for cleaning components
- oxygen compatible



MATERIALS

- Body: Brass or Stainless Steel
- Spring: Stainless Steel
- Adjusting Screw: Brass & Stainless Steel
- Seal Washer:
Fluorosilicone Copolymer @ 22 ~ 100 psi
PTFE @ 150 ~ 500 psi

Pressure Labels

Set Pressure	Color	Set Pressure	Color
22	Yellow	230	Blue
35	Purple	350	Orange
50	White	450	Pink
100	Gray	500	Light Blue
150	Red		

B	RV95	T	150	NT4
Valve Material: B: Brass SS: Stainless Steel	Series:	Seat Material : F: Fluorosilicone Copolymer T: PTFE	Set Pressure (psi) : 22, 35, 50, 100, 150, 230, 350, 450, 500	Inlet Connection: NT4: 1/4" NPT(M) NT6: 3/8" NPT(M) NT8: 1/2" NPT(M)

BRASS PRESSURE GAUGE

- 2" gauge
- Operating temperature:
-40 ~ 158°F (-40 ~ 70°C)
- Inlet Connection: 1/4" NPT Male
- Rear Entry Configuration
- MODEL: GR20B-200
- GR20B-400
- GR20B-600





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