

UHP

RC Series



RC01 Series

Specification

Pressure Ratings

Per criteria of ANSI/ASME B31.3

Max. Inlet Pressure	600 or 3500 psig (41.4 or 241 bar)
Outlet Pressure Range	30, 60, 100, 150 and 250 psig (2.1, 4.1, 6.9, 10.3 and 17.3 bar)
Design Proof Pressure	150% of maximum rated

Operating Temperature

PCTFE Seat	-40~60°C (-40°F~140°F)
Vespel® Seat	-40~177°C (-40°F~350°F)

Flow Capacity

3500 psig / 241 bar	0.06 Cv (Optional 0.15 Cv)
600 psig / 41.4 bar	0.15 Cv

Helium Leak Test

Inboard Leak Rate	1x10 ⁻⁹ atm cc/sec
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Media Contact Materials

Body	316L Stainless Steel
Diaphragm	316L Stainless Steel or Hastelloy®
Seat	PCTFE (Optional Vespel®)
Spring	316L Stainless Steel or Inconel®
Poppet, Retainer	316L Stainless Steel or Hastelloy®

Internal Surface Finish

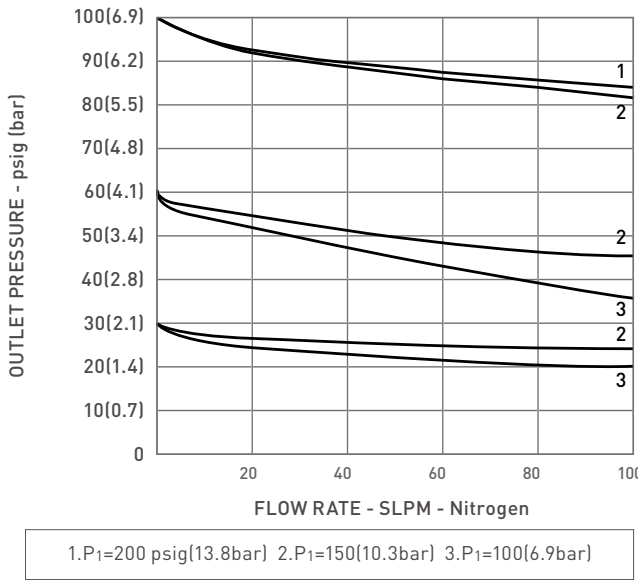
Designator	Surface Finish(μm)	
	Average	Maximum
BA	< 0.4	< 1.6
EP	< 0.125	< 0.4



Features

- The RC01 series provides excellent stability of set pressure with accuracy, sensitivity.
- Metal to metal diaphragm seals provide enhanced leak integrity
- Optimum performance and cleanliness at a great value
- Low internal volume
- Adjustable stop to limit outlet pressure
- All performed in class 100 and class 10 clean rooms

Flow Chart



How To Order

RC01	C	-	04F	-	22	2	2		-	4			
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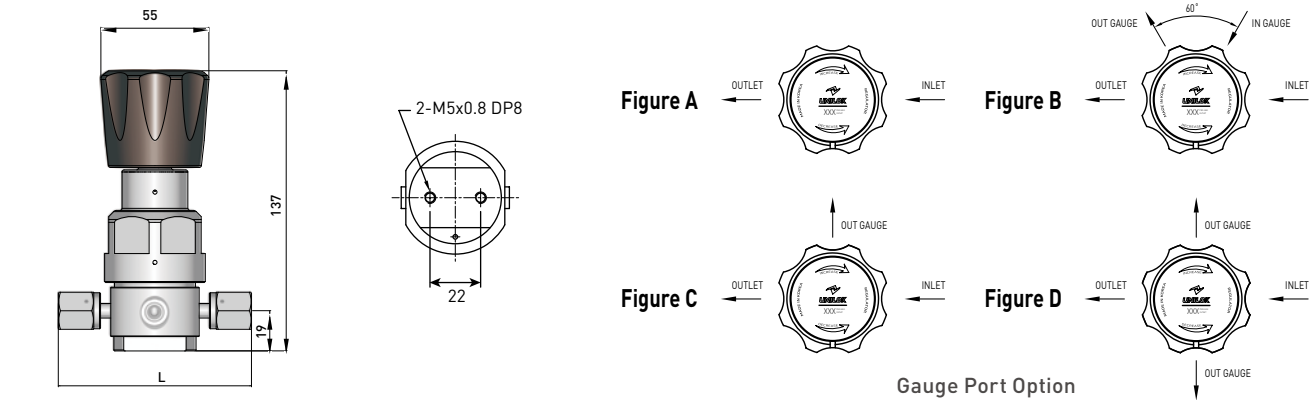
Regulator Type	Connection Type	Connection Size	Inlet / Outlet Pressure	Gauge Port Option	Outlet Gauge	Inlet Gauge	Body Material	Surface Finish	Trim Material	Seat Material
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Regulator Type	
RC01	UHP Regulator
Connection Type	
C-*M	Male UCR Swivel
C-*F	Female UCR Swivel
WB-*T	Tube Butt Weld
U-*T	UNILOK Tube Fitting
Connection Size	
04	1/4 inch
Maximum Inlet Pressure	
1	3500 psig (0.06 Cv)
2	600 psig (0.15 Cv)
4	3500 psig (0.15 Cv)
Outlet Pressure Range	
0	1~30 psig / 0.1~2.1 bar
1	1~60 psig / 0.1~4.1 bar
2	1~100 psig / 0.1~6.9 bar
3	1~150 psig / 0.1~10.3 bar
4	1~250 psig / 0.1~17.2 bar

Gauge Port Option	
0	None (Fig. A)
1	1/4" Internal UCR (Fig. B)
2	1/4" Internal UCR (Fig. C)
3	1/4" Internal UCR (Fig. D)
4	1/4" Male Swivel (Fig. B)
5	1/4" Male Swivel (Fig. C)
6	1/4" Male Swivel (Fig. D)
7	1/4" Female Swivel (Fig. B)
8	1/4" Female Swivel (Fig. C)
9	1/4" Female Swivel (Fig. D)
Outlet Gauge	
None	No Gauge
0	0~30 psig
1	0~60 psig
2	0~100 psig
3	0~160 psig
4	0~200 psig
5	0~300 psig

Inlet Gauge	
None	No Gauge
A	0~600 psig
B	0~1000 psig
C	0~2500 psig
D	0~3500 psig
Body Material	
2	316L VAR Stainless Steel
4	316L Stainless Steel
Internal Surface Finish	
None	EP – Electro Polished
BA	BA
Trim Material	
None	316 SS
H	Hastelloy®
Seat Material	
None	PCTFE
V	Vespel®

Ordering Information & Dimensions



Part Number		End Connection		Dimensions(mm)
		Inlet	Outlet	L ± 1
RC01	U-04T	1/4" UNILOK Tube Fitting		109.7
	C-04M-	1/4" Male UCR Swivel		94
	C-04F-	1/4" Female UCR Swivel		94
	C-04MF-	1/4" Male UCR Swivel	1/4" Female UCR Swivel	94
	C-04FM-	1/4" Female UCR Swivel	1/4" Male UCR Swivel	94
	WB-04T-	1/4" Tube Butt Weld		76.2

Dimensions are for reference only and are subject to change without prior notice.

RC02 Series

Specification

Pressure Ratings

Per criteria of ANSI/ASME B31.3

Max. Inlet Pressure	600, 1000, 3500 psig (41.4, 69.0, 241 bar)
Outlet Pressure Range	30, 60, 100, 130, 150 psig (2.1, 4.1, 6.9, 8.9, 10.3 bar)
Design Proof Pressure	150% of maximum rated

Operating Temperature

PCTFE Seat	-40~60°C (-40°F~140°F)
Vespel® Seat	-40~177°C (-40°F~350°F)

Flow Capacity

Flow Capacity	0.5 Cv
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Helium Leak Test

Inboard Leak Rate	1x10 ⁻⁹ atm cc/sec
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Media Contact Materials

Body	316L Stainless Steel
Diaphragm	316L Stainless Steel or Hastelloy®
Seat	PCTFE (Optional Vespel®)
Spring	316 Stainless Steel or Inconel®
Poppet, Retainer	316L Stainless Steel or Hastelloy®

Internal Surface Finish

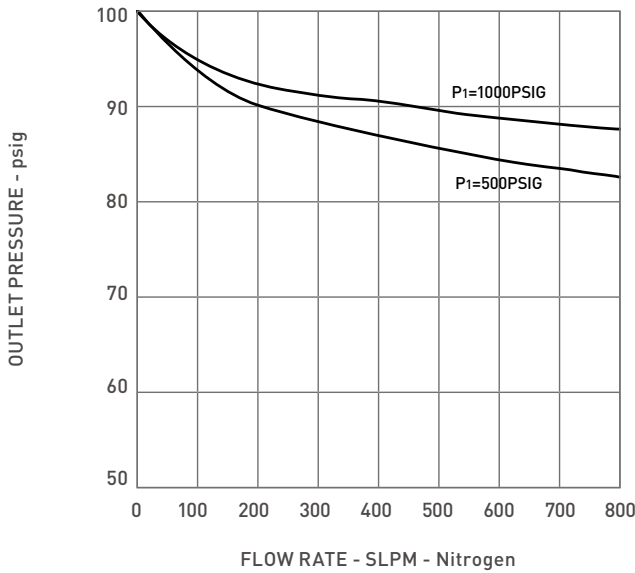
Designator	Surface Finish(μm)	
	Average	Maximum
BA	< 0.4	< 1.6
EP	< 0.125	< 0.4



Features

- RC02 series provides excellent stability of set pressure with accuracy, sensitivity.
- Metal to metal diaphragm seals provide enhanced leak integrity
- Optimum performance and cleanliness at a great value
- Low internal volume
- Adjustable stop to limit outlet pressure
- All performed in class 100 and class 10 clean rooms

Flow Chart



How To Order

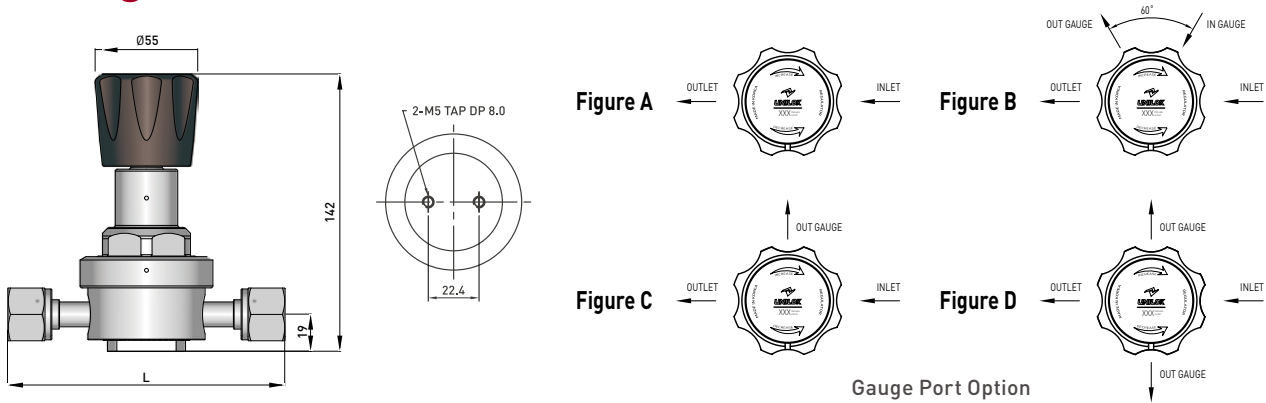
RC02	C	08F	32	2	2		4			
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Regulator Type	Connection Type	Connection Size	Inlet / Outlet Pressure	Gauge Port Option	Outlet Gauge	Inlet Gauge	Body Material	Surface Finish	Trim Material	Seat Material
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Regulator Type		Gauge Port Option		Inlet Gauge	
RC02	UHP Regulator	0	None (Fig. A)	None	No Gauge
Connection Type		1	1/4" Internal UCR (Fig. B)	A	0~600 psig
C-*M	Male UCR Swivel	2	1/4" Internal UCR (Fig. C)	B	0~1000 psig
C-*F	Female UCR Swivel	3	1/4" Internal UCR (Fig. D)	C	0~2500 psig
WB-*T	Tube Butt Weld	4	1/4" Male Swivel (Fig. B)	D	0~3500 psig
U-*T	UNILOK Tube Fitting	5	1/4" Male Swivel (Fig. C)	Body Material	
Connection Size		6	1/4" Male Swivel (Fig. D)	2	316L VAR Stainless Steel
06	3/8 inch	7	1/4" Female Swivel (Fig. B)	4	316L Stainless Steel
08	1/2 inch	8	1/4" Female Swivel (Fig. C)	Internal Surface Finish	
Maximum Inlet Pressure		9	1/4" Female Swivel (Fig. D)	None	EP – Electro Polished
1	3500 psig / 241bar	Outlet Gauge		BA	BA
2	1000 psig / 68.9 bar	None	No Gauge	Trim Material	
3	600 psig / 41.4 bar	0	0~30 psig	None	316 SS
Outlet Pressure Range		1	0~60 psig	H	Hastelloy®
0	1~30 psig / 0.1~2.1 bar	2	0~100 psig	Seat Material	
1	1~60 psig / 0.1~4.1 bar	3	0~160 psig	None	PCTFE
2	1~100 psig / 0.1~6.9 bar	4	0~200 psig	V	Vespel®
3	1~130 psig / 0.1~8.9 bar				
4	1~150 psig / 0.1~10.3 bar				

Vespel® seat for 3500 psig only

Ordering Information & Dimensions



Part Number		End Connection		Dimensions(mm)
		Inlet	Outlet	L ± 1
RC02	U-06T	3/8" UNILOK Tube Fitting		136.7
	U-08T	1/2" UNILOK Tube Fitting		136.7
	C-08M-	1/2" Male UCR Swivel		142
	C-08F-	1/2" Female UCR Swivel		142
	WB-06T-	3/8" Tube Butt Weld		94
	WB-08T-	1/2" Tube Butt Weld		94

Dimensions are for reference only and are subject to change without prior notice.

RCT01 Series

Tied Diaphragm

Specification

Pressure Ratings

Per criteria of ANSI/ASME B31.3

Max. Inlet Pressure	600 or 3500 psig (41.4 or 241 bar)
Outlet Pressure Range	30, 60, 100 psig (2.1, 4.1, 6.9 bar)
Design Proof Pressure	150% of maximum rated

Operating Temperature

PCTFE Seat	-40~60°C (-40°F~140°F)
Vespel® Seat	-40~177°C (-40°F~350°F)

Flow Capacity

3500 psig / 241 bar	0.06 Cv
600 psig / 41.4 bar	0.15 Cv

Helium Leak Test

Inboard Leak Rate	1x10 ⁻⁹ atm cc/sec He
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Media Contact Materials

Body	316L VAR Stainless Steel
Diaphragm	Hastelloy®
Seat	PCTFE (Optional Vespel®)
Poppet	Hastelloy®
Rear Seal	316L Stainless Steel

Internal Surface Finish

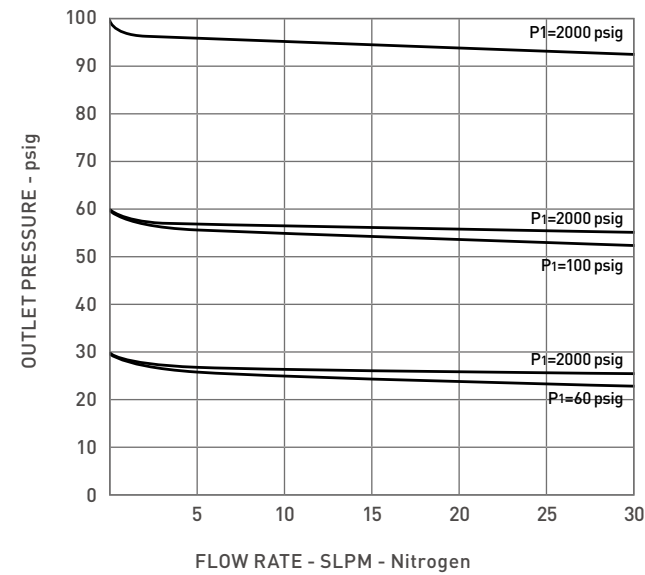
Designator	Surface Finish(μm)	
	Average	Maximum
BA	< 0.4	< 1.6
EP	< 0.125	< 0.4



Features

- The RCT01 series ultra high purity, tied diaphragm pressure reducing regulator provides excellent stability of set pressure with accuracy, sensitivity.
- Internal springless and threadless design and low internal volume minimizes particles
- Metal to metal diaphragm seals provide enhanced leak integrity
- Positive shutoff seal reduces creep
- Optimum performance and cleanliness at a great value
- All performed in class 100 and class 10 clean rooms

Flow Chart



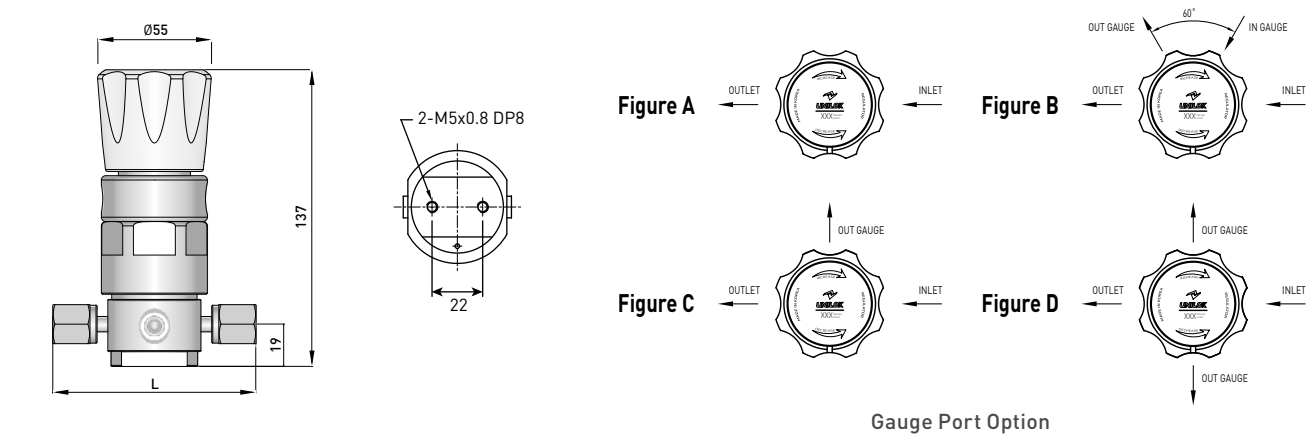
How To Order

RCT01	C	-	04F	-	22	2	2		-	2			
Regulator Type	Connection Type		Connection Size		Inlet / Outlet Pressure	Gauge Port Option	Outlet Gauge	Inlet Gauge		Body Material	Surface Finish	Trim Material	Seat Material

Regulator Type		Gauge Port Option		Inlet Gauge	
RCT01	UHP Regulator	0	None (Fig. A)	None	No Gauge
		1	1/4" Internal UCR (Fig. B)	A	0~600 psig
		2	1/4" Internal UCR (Fig. C)	B	0~1000 psig
		3	1/4" Internal UCR (Fig. D)	C	0~2500 psig
		4	1/4" Male Swivel (Fig. B)	D	0~3500 psig
		5	1/4" Male Swivel (Fig. C)		
		6	1/4" Male Swivel (Fig. D)	Body Material	
		7	1/4" Female Swivel (Fig. B)	2	316L VAR Stainless Steel
		8	1/4" Female Swivel (Fig. C)	Internal Surface Finish	
		9	1/4" Female Swivel (Fig. D)	None	EP – Electro Polished
		Outlet Gauge		BA	BA
		None	No Gauge	Trim Material	
		0	0~30 psig	None	316 SS
		1	0~60 psig	H	Hastelloy®
		2	0~100 psig	Seat Material	
		3	0~160 psig	None	PCTFE
				V	Vespel®

Vespel® seat for 3500 psig only

Ordering Information & Dimensions



Part Number		End Connection		Dimensions(mm)
		Inlet	Outlet	L ± 1
RCT01	C-04M-	1/4" Male UCR Swivel		94
	C-04F-	1/4" Female UCR Swivel		94
	WB-04T-	1/4" Tube Butt Weld		76.2

Dimensions are for reference only and are subject to change without prior notice.

RCT02 Series

Tied Diaphragm

Specification

Pressure Ratings

Per criteria of ANSI/ASME B31.3

Max. Inlet Pressure	600, 1000, 2200, 3500 psig [41.4, 69.0, 151, 241 bar]
Outlet Pressure Range	30, 60, 100, 130, 150 psig [2.1, 4.1, 6.9, 8.9, 10.3 bar]
Design Proof Pressure	150% of maximum rated

Operating Temperature

PCTFE Seat	-40~60°C (-40°F~140°F)
Vespel® Seat	-40~177°C (-40°F~350°F)

Flow Capacity

Flow Capacity	0.5 Cv
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Helium Leak Test

Inboard Leak Rate	1x10 ⁻⁹ atm cc/sec
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Media Contact Materials

Body	316L VAR Stainless Steel
Diaphragm	Hastelloy®
Seat	PCTFE (Optional Vespel®)
Poppet	Hastelloy®
Rear Seal	316L Stainless Steel

Internal Surface Finish

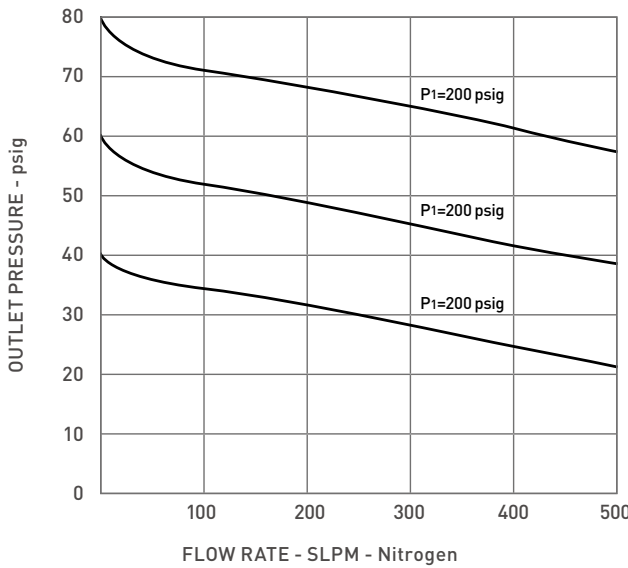
Designator	Surface Finish(μm)	
	Average	Maximum
BA	< 0.4	< 1.6
EP	< 0.125	< 0.4



Features

- The RCT02 series ultra high purity, tied diaphragm pressure reducing regulator provides excellent stability of set pressure with accuracy, sensitivity.
- Internal springless and threadless design and low internal volume minimizes particles
- Metal to metal diaphragm seals provide enhanced leak integrity
- Positive shutoff seal reduces creep
- Optimum performance and cleanliness at a great value
- All performed in class 100 and class 10 clean rooms

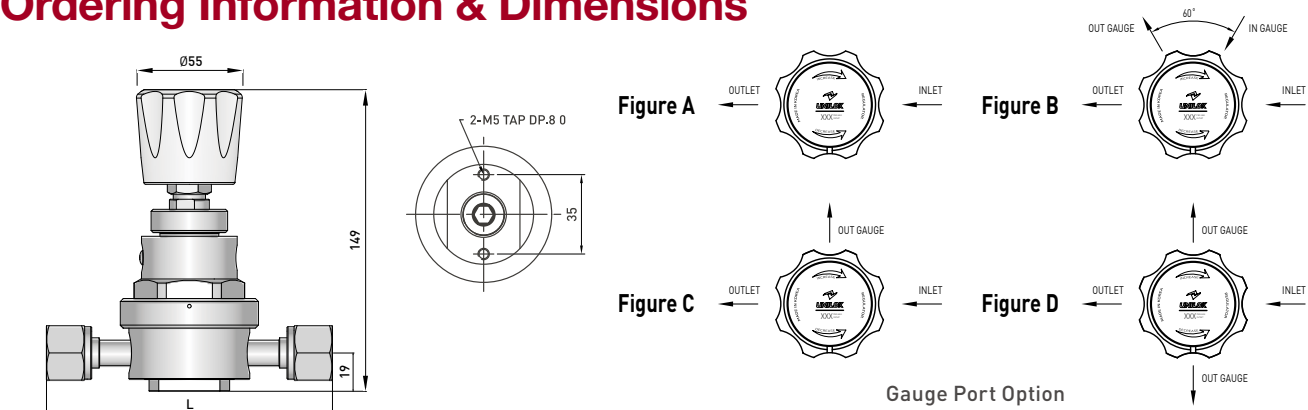
Flow Chart



How To Order

RCT02	C	08F	32	2	2		2				
Regulator Type	Connection Type	Connection Size	Inlet / Outlet Pressure	Gauge Port Option	Outlet Gauge	Inlet Gauge	Body Material	Surface Finish	Trim Material	Seat Material	
Regulator Type		Gauge Port Option		Inlet Gauge		Body Material		Internal Surface Finish		Trim Material	
RCT02		UHP Regulator		0		None (Fig. A)		None		No Gauge	
		Connection Type		1		1/4" Internal UCR (Fig. B)		A		0~600 psig	
C-*M		Male UCR Swivel		2		1/4" Internal UCR (Fig. C)		B		0~1000 psig	
C-*F		Female UCR Swivel		3		1/4" Internal UCR (Fig. D)		C		0~2500 psig	
WB-*T		Tube Butt Weld		4		1/4" Male Swivel (Fig. B)		D		0~3500 psig	
U-*T		UNILOK Tube Fitting		5		1/4" Male Swivel (Fig. C)					
		Connection Size		6		1/4" Male Swivel (Fig. D)		2		316L VAR Stainless Steel	
06		3/8 inch		7		1/4" Female Swivel (Fig. B)					
08		1/2 inch		8		1/4" Female Swivel (Fig. C)					
		Maximum Inlet Pressure		9		1/4" Female Swivel (Fig. D)					
1		3500 psig / 241 bar									
2		2200 psig / 151 bar									
3		1000 psig / 68.9 bar									
4		600 psig / 41.4 bar									
		Outlet Pressure Range									
0		1~30 psig / 0.1~2.1 bar									
1		1~60 psig / 0.1~4.1 bar									
2		1~100 psig / 0.1~6.9 bar									
3		1~130 psig / 0.1~8.9 bar									
4		1~150 psig / 0.1~10.3 bar									

Ordering Information & Dimensions



Part Number		End Connection		Dimensions(mm)
		Inlet	Outlet	L ± 1
RCT02	U-06T	3/8" UNILOK Tube Fitting		163
	U-08T	1/2" UNILOK Tube Fitting		152.4
	C-08M-	1/2" Male UCR Swivel		142
	C-08F-	1/2" Female UCR Swivel		142
	WB-06T-	3/8" Tube Butt Weld		94
	WB-08T-	1/2" Tube Butt Weld		94

Dimensions are for reference only and are subject to change without prior notice.

RCM3 Series

Specification

Pressure Ratings

Per criteria of ANSI/ASME B31.3

Max. Inlet Pressure	250, 500 psig (17.3, 34.5 bar)
Outlet Pressure Range	30, 60, 100, 150 psig (2.1, 4.1, 6.9, 10.3 bar)
Design Proof Pressure	150% of maximum rated

Operating Temperature

PCTFE Seat	-40~60°C (-40°F~140°F)
PTFE Seat	-40~71°C (-40°F~160°F)

Flow Capacity

Flow Capacity	0.1 Cv (Optional 0.17 Cv)
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Helium Leak Test

Inboard Leak Rate	1x10 ⁻⁹ atm cc/sec
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Media Contact Materials

Body	316L Stainless Steel
Diaphragm	Hastelloy®
Seat	PCTFE (Optional PTFE)
Spring	316 Stainless Steel or Inconel®
Poppet, Retainer	316L Stainless Steel or Hastelloy®

Internal Surface Finish

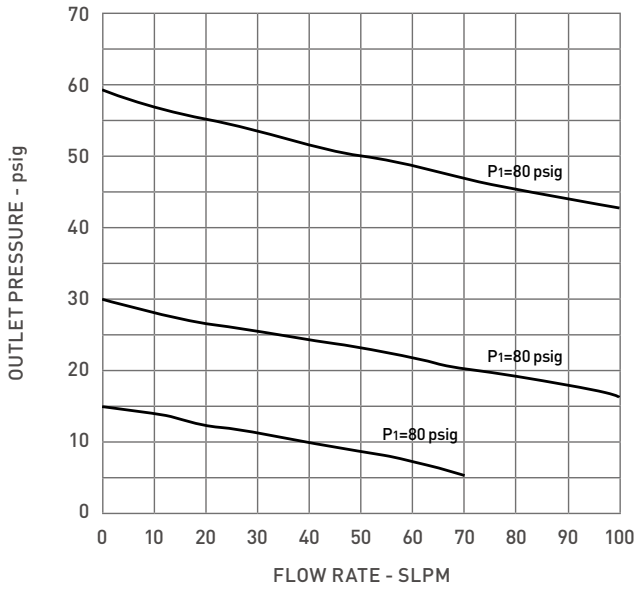
Designator	Surface Finish(μm)	
	Average	Maximum
BA	< 0.4	< 1.6
EP	< 0.125	< 0.4



Features

- The RCM3 series ultra high purity, pressure reducing regulator provides precise performance and repeatability
- Compact size
- Low internal volume
- Metal to metal diaphragm seals provide enhanced leak integrity
- Optimum performance and cleanliness at a great value
- All performed in class 100 and class 10 clean rooms

Flow Chart

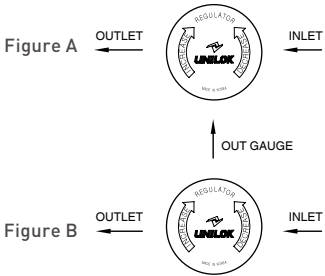
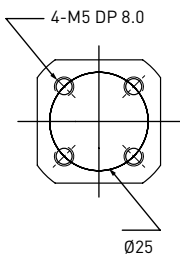
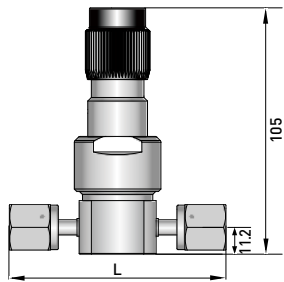


How To Order

RCM3	C	04F	11	0		2			
Regulator Type	Connection Type	Connection Size	Inlet /Outlet Pressure	Gauge Port Option	Outlet Gauge	Body Material	Surface Finish	Trim Material	Seat Material

Regulator Type		Outlet Pressure Range		Body Material	
RCM3	UHP Regulator	0	1~30 psig / 0.1~2.1 bar	2	316L VAR Stainless Steel
Connection Type		1	1~60 psig / 0.1~4.1 bar	4	316L Stainless Steel
C-*M	Male UCR	2	1~100 psig / 0.1~6.9 bar	Internal Surface Finish	
C-*F	Female UCR Swivel	3	1~150 psig / 0.1~10.3 bar	None	EP – Electro Polished
WB-*T	Tube Butt Weld	Gauge Port Option		BA	BA
Connection Size		0	None (Fig. A)	Trim Material	
04	1/4 inch	1	1/4" Male Swivel (Fig. B)	None	316 SS
Maximum Inlet Pressure		2	1/4" Female Swivel (Fig. B)	H	Hastelloy®
1	500 psig (0.1 Cv)	Outlet Gauge		Seat Material	
2	250 psig (0.1 Cv)	None	No Gauge	None	PCTFE
4	500 psig (0.17 Cv)	0	0~30 psig	T	PTFE
5	250 psig (0.17 Cv)	1	0~60 psig		
		2	0~100 psig		
		3	0~150 psig		

Ordering Information & Dimensions



Gauge Port Option

Part Number		End Connection		Dimensions(mm)
		Inlet	Outlet	L ± 1.5
RCM3	C-04M-	1/4" Male UCR		70.6
	C-04F-	1/4" Female UCR Swivel		70.6
	WB-04T-	1/4" Tube Butt Weld		57.0

Dimensions are for reference only and are subject to change without prior notice.

RCIB3 Series

Tied Diaphragm

Specification

Pressure Ratings

Per criteria of ANSI/ASME B31.3

Max. Inlet Pressure	125, 150 psig (8.6, 10.3 bar)
Outlet Pressure Range	30, 60, 100 psig (2.1, 4.1, 6.9 bar)
Design Proof Pressure	150% of maximum rated

Operating Temperature

PCTFE Seat	-40~60°C (-40°F~140°F)
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Flow Capacity

Flow Capacity	0.04 Cv (Optional 0.08 Cv)
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Helium Leak Test

Inboard Leak Rate	1x10 ⁻⁹ atm cc/sec He
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Media Contact Materials

Body	316L Stainless Steel
Diaphragm regulator	Hastelloy®
Diaphragm Valve	Elgiloy®
Seat	PCTFE
Poppet	Hastelloy®

Internal Surface Finish

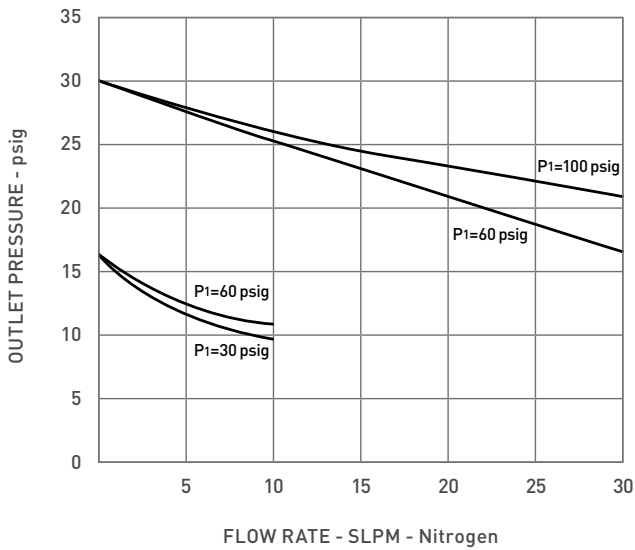
Designator	Surface Finish(μm)	
	Average	Maximum
BA	< 0.4	< 1.6
EP	< 0.125	< 0.4



Features

- The RCIB3 series ultra high purity, pressure reducing regulator and diaphragm valve mounted provides in a single body construction
- Compact size
- Tied diaphragm RCI series regulator
- Internal springless and threadless design and low internal volume minimizes particles
- Metal to metal diaphragm seals provide enhanced leak integrity
- Optimum performance and cleanliness at a great value
- All performed in class 100 and class 10 clean rooms

Flow Chart

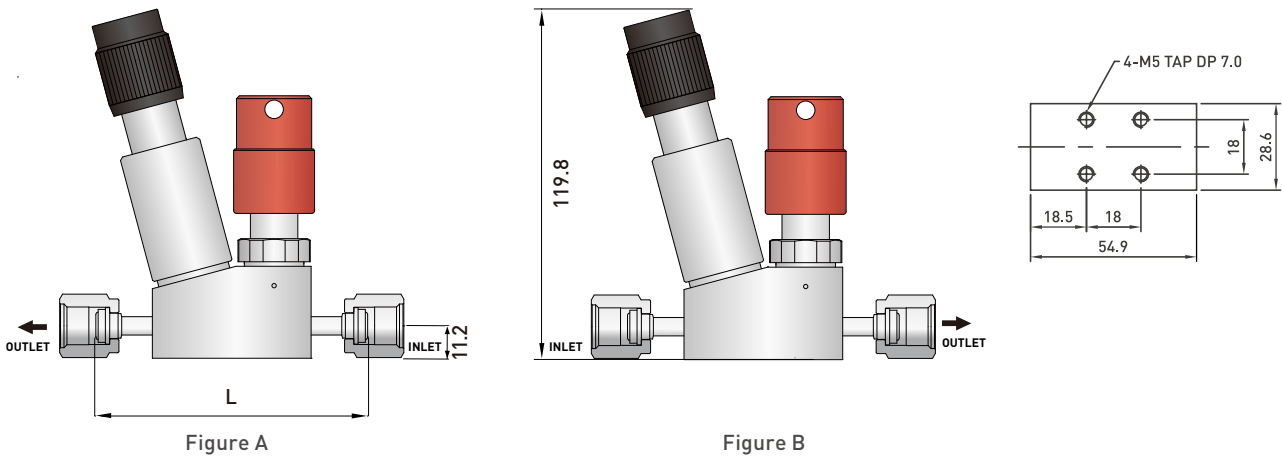


How To Order

RCIB3	5	C	—	04F	—	11	—	2	
Regulator Type	Valve Type	Connection Type		Connection Size		Inlet /Outlet Pressure		Body Material	Surface Finish

Regulator Type		Connection Type		Outlet Pressure Range	
RCIB3	UHP Regulator	C-*M	Male UCR	0	1~30 psig / 0.1~2.1 bar
Valve Type		C-*F	Female UCR Swivel	1	1~60 psig / 0.1~4.1 bar
1	Inlet manual valve outlet regulator (Figure A)	Connection Size		2	1~100 psig / 0.1~6.9 bar
2	Outlet manual valve inlet regulator (Figure B)	04	1/4 inch	Body Material	
3	Inlet pneumatic valve outlet regulator (Figure A)	Maximum Inlet Pressure		2	316L VAR Stainless Steel
4	Outlet pneumatic valve inlet regulator (Figure B)	1	150 psig (0.04 Cv)	Internal Surface Finish	
5	Inlet LOTO valve outlet regulator (Figure A)	2	125 psig (0.04 Cv)	None	EP – Electro Polished
6	Outlet LOTO valve inlet regulator (Figure B)	4	150 psig (0.08 Cv)	BA	BA
		5	125 psig (0.08 Cv)		

Ordering Information & Dimensions



Part Number		End Connection		Dimensions(mm)
		Inlet	Outlet	L ± 1
RCIB3*	C-04M-	1/4" Male UCR		94
	C-04F-	1/4" Female UCR Swivel		94
	C-04MF-	1/4" Male UCR	1/4" Female UCR Swivel	94
	C-04FM-	1/4" Female UCR Swivel	1/4" Male UCR	94

Dimensions are for reference only and are subject to change without prior notice.

RCIB4 Series

Tied Diaphragm

Specification

Pressure Ratings

Per criteria of ANSI/ASME B31.3

Max. Inlet Pressure	125, 150 psig (8.6, 10.3 bar)
Outlet Pressure Range	30, 60, 100 psig (2.1, 4.1, 6.9 bar)
Design Proof Pressure	150% of maximum rated

Operating Temperature

PCTFE Seat	-40~60°C (-40°F~140°F)
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Flow Capacity

Flow Capacity	0.04 Cv (Optional 0.08 Cv)
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Helium Leak Test

Inboard Leak Rate	1x10 ⁻⁹ atm cc/sec He
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Media Contact Materials

Body	316L Stainless Steel
Diaphragm regulator	Hastelloy®
Diaphragm Valve	Elgiloy®
Seat	PCTFE
Poppet	Hastelloy®

Internal Surface Finish

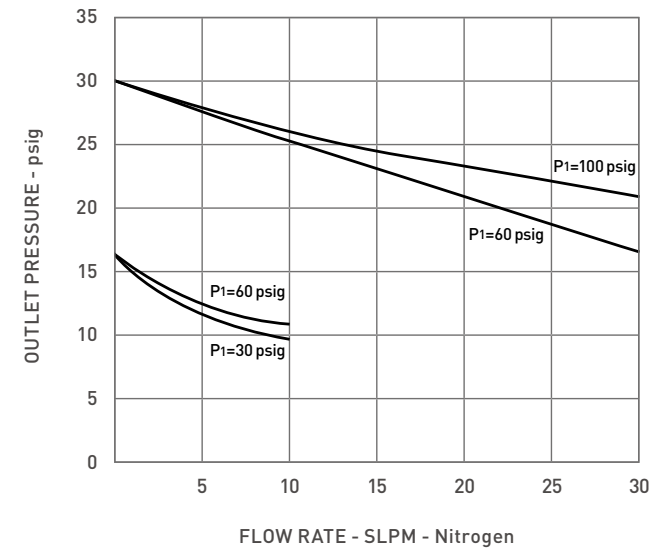
Designator	Surface Finish(μm)	
	Average	Maximum
BA	< 0.4	< 1.6
EP	< 0.125	< 0.4



Features

- The RCIB4 series ultra high purity, pressure reducing regulator and Diaphragm Valve mounted in a single body construction
- Compact size
- Low internal volume
- Metal to metal diaphragm seals provide enhanced leak integrity
- Optimum performance and cleanliness at a great value
- All performed in class 100 and class 10 clean rooms

Flow Chart

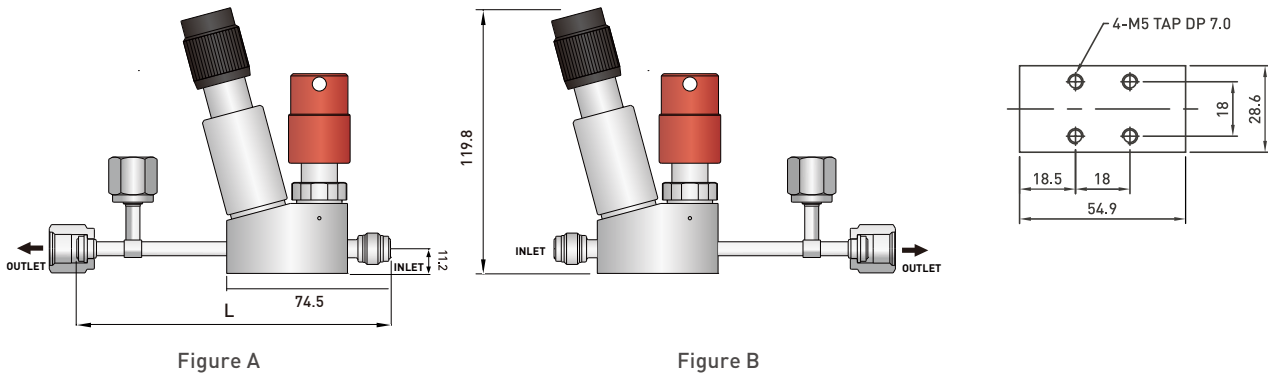


How To Order

RCIB4	5	C	04MF	11	2	1	2	
Regulator Type	Valve Type	Connection Type	Connection Size	Inlet /Outlet Pressure	Gauge Port Option	Outlet Gauge	Body Material	Surface Finish

Regulator Type		Connection Size		Gauge Port Option	
RCIB4	UHP Regulator	04	1/4 inch	1	1/4" Male Swivel
Valve Type		Maximum Inlet Pressure		2	1/4" Female Swivel
1	Inlet manual valve outlet regulator (Figure A)	1	150 psig (0.04 bar)	Outlet Gauge	
2	Outlet manual valve inlet regulator (Figure B)	2	125 psig (0.04 bar)	None	No Gauge
3	Inlet pneumatic valve outlet regulator (Figure A)	4	150 psig (0.08 bar)	0	0~30 psig
4	Outlet pneumatic valve inlet regulator (Figure B)	5	125 psig (0.08 bar)	1	0~60 psig
Outlet Pressure Range		Body Material		2	0~100 psig
5	Inlet LOTO valve outlet regulator (Figure A)	0	1~30 psig / 0.1~2.1 bar	3	0~160 psig
6	Outlet LOTO valve inlet regulator (Figure B)	1	1~60 psig / 0.1~4.1 bar	Internal Surface Finish	
Connection Type		2	1~100 psig / 0.1~6.9 bar	None	EP – Electro Polished
C-*M	Male UCR	Internal Surface Finish		BA	BA
C-*F	Female UCR Swive				

Ordering Information & Dimensions



Part Number		End Connection		Dimensions(mm)
		Inlet	Outlet	L ± 1
RCIB4*	C-04M-	1/4" Male UCR		152.4
	C-04F-	1/4" Female UCR Swivel		142
	C-04MF-	1/4" Male UCR	1/4" Female UCR Swivel	142
	C-04FM-	1/4" Female UCR Swivel	1/4" Male UCR	152.4

Dimensions are for reference only and are subject to change without prior notice.

RCI Series

Tied Diaphragm

Specification

Pressure Ratings

Per criteria of ANSI/ASME B31.3

Max. Inlet Pressure	150 psig (10.3 bar)
Outlet Pressure Range	30, 60, 100 psig (2.1, 4.1, 6.9 bar)
Design Proof Pressure	150% of maximum rated

Operating Temperature

PCTFE Seat	-40~60°C (-40°F~140°F)
Vespel® Seat	-40~177°C (-40°F~350°F)

Flow Capacity

Flow Capacity	0.04 Cv (Optional 0.08 Cv)
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Helium Leak Test

Inboard Leak Rate	1x10 ⁻⁹ atm cc/sec He
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Media Contact Materials

Body	316L VAR Stainless Steel
Diaphragm	Hastelloy®
Seat	PCTFE (Optional Vespel®)
Poppet	Hastelloy®

Internal Surface Finish

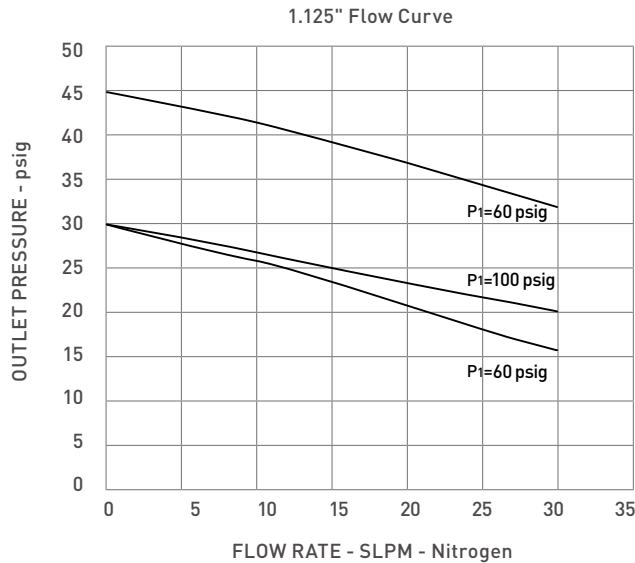
Designator	Surface Finish(μm)	
	Average	Maximum
BA	< 0.4	< 1.6
EP	< 0.125	< 0.4



Features

- The RCI series ultra high purity, tied diaphragm pressure reducing regulator provides excellent stability of set pressure with accuracy, sensitivity.
- Internal springless and threadless design and low internal volume minimizes particles
- Compact size
- Positive shutoff seal reduces creep
- Metal to metal diaphragm seals provide enhanced leak integrity
- Optimum performance and cleanliness at a great value
- All performed in class 100 and class 10 clean rooms

Flow Chart

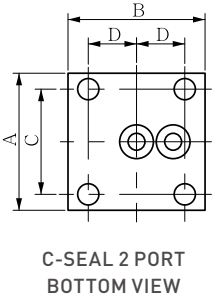
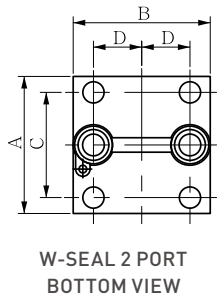
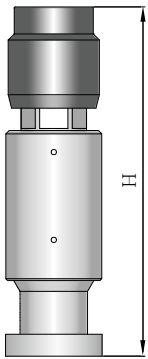


How To Order

RCI	C	-	11W	-	11	-	2		
Regulator Type	Connection Type		Connection Size		Inlet / Outlet Pressure		Body Material	Surface Finish	Seat Material

Regulator Type		Maximum Inlet Pressure		Body Material	
RCI	UHP Regulator	1	150 psig / 10.3 bar (0.04 Cv)	2	316L VAR Stainless Steel
Connection Type		3	150 psig / 10.3 bar (0.08 Cv)	Maximum Inlet Pressure	
C-*W	W-Seal	Outlet Pressure Range		None	EP – Electro Polished
C-*C	C-Seal	0	1~30 psig / 0.1~2.1 bar	BA	BA
C-*M	Male UCR	1	1~60 psig / 0.1~4.1 bar	Seat Material	
C-*F	Female UCR Swivel	2	1~100 psig / 0.1~6.9 bar	None	PCTFE
Connection Size				V	Vespel®
11	1.125"			T	PTFE
15	1.5"				
04	1/4 inch				

Ordering Information & Dimensions



Part Number		End Connection		A	B	C	D	H
		Inlet	Outlet					
RCI	C-11W-	1.125" W-Seal		28.6	28.6	21.8	10.0	117.5
	C-11C-	1.125" C-Seal		28.6	28.6	21.8	10.9	117.5
	C-15W-	1.5" W-Seal		39.0	39.0	30.0	13.0	119.0
	C-15C-	1.5" C-Seal		39.0	39.0	30.2	15.5	119.0

Dimensions are for reference only and are subject to change without prior notice.

RCV2 Series

Specification

Pressure Ratings

Per criteria of ANSI/ASME B31.3

Max. Inlet Pressure	300, 600, 1000, 3500 psig [41.4, 69.0, 241 bar]
Outlet Pressure Range	-30 in Hg-15 psig, 3-30, 3-60, 4-100, 4-150 psig
Design Proof Pressure	150% of maximum rated

Operating Temperature

PCTFE Seat	-40~60°C (-40°F~140°F)
Vespel® Seat	-40~177°C (-40°F~350°F)

Flow Capacity

Flow Capacity	0.5 Cv
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Helium Leak Test

Inboard Leak Rate	1x10 ⁻⁹ atm cc/sec He
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Media Contact Materials

Body	316L Stainless Steel
Diaphragm	316L Stainless Steel or Hastelloy
Seat	PCTFE (Optional Vespel®)
Poppet	316 Stainless Steel or Hastelloy®
Rear Seal	316L Stainless Steel

Internal Surface Finish

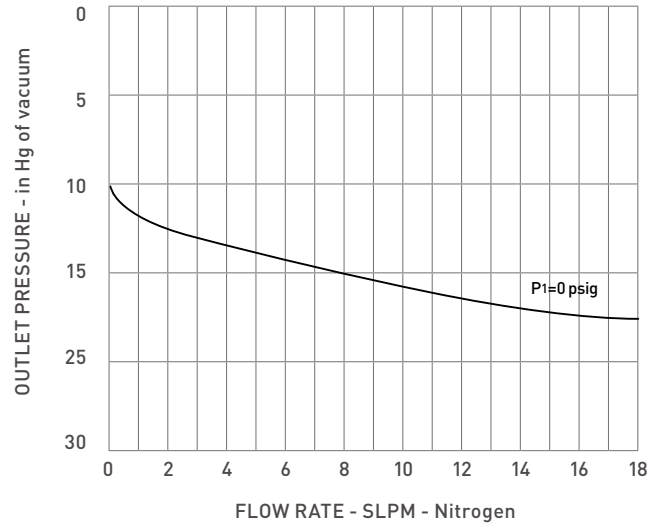
Designator	Surface Finish(μm)	
	Average	Maximum
BA	< 0.4	< 1.6
EP	< 0.125	< 0.4



Features

- The RCV2 series ultra high purity, non-tied diaphragm pressure reducing regulator provides excellent stability of set pressure with accuracy.
- Internal threadless design and low internal volume
- Negative pressure range model is available
- Metal to metal diaphragm seals provide enhanced leak integrity
- Optimum performance and cleanliness at a great value
- All performed in class 100 and class 10 clean rooms

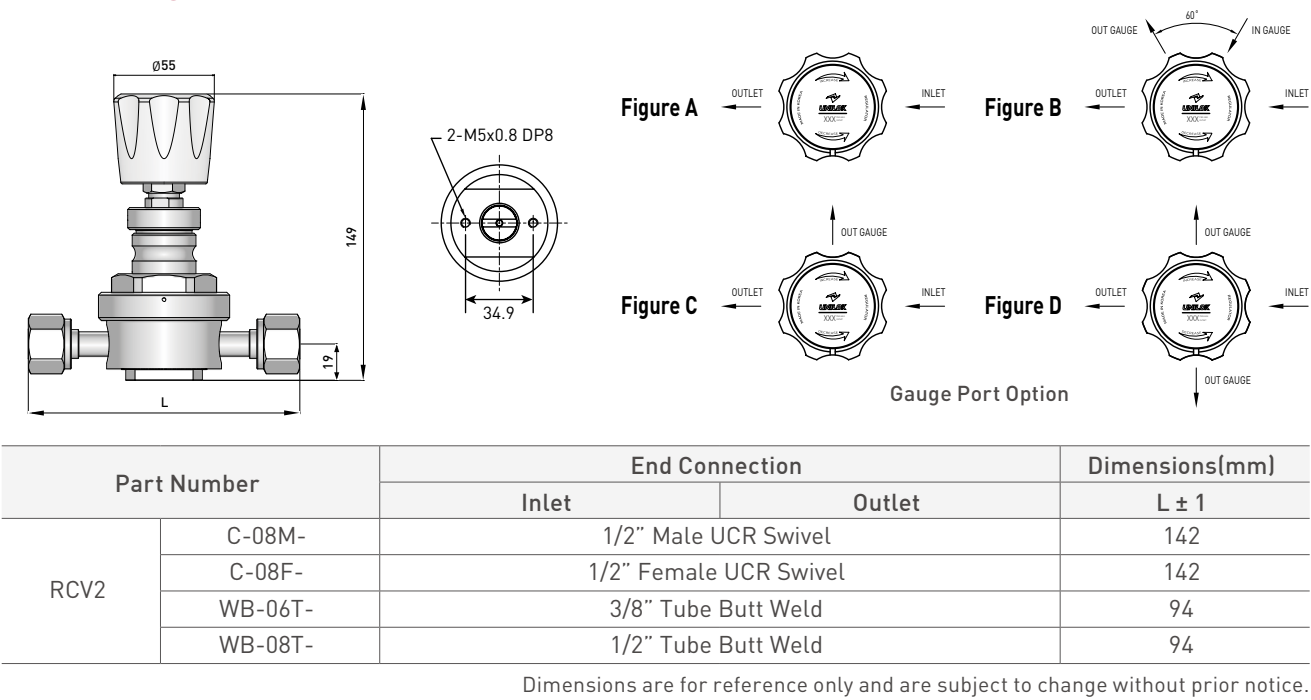
Flow Chart



How To Order

RCV2	C	08F	4A	2	0		2			
Regulator Type	Connection Type	Connection Size	Inlet / Outlet Pressure	Gauge Port Option	Outlet Gauge	Inlet Gauge	Body Material	Surface Finish	Trim Material	Seat Material
Regulator Type										
RCV2	UHP Regulator									
Connection Type										
C-*M	Male UCR Swivel									
C-*F	Female UCR Swivel									
WB-*T	Tube Butt Weld									
Connection Size										
06	3/8 inch									
08	1/2 inch									
Maximum Inlet Pressure										
1	3500 psig / 241 bar									
2	1000 psig / 69.0 bar									
3	600 psig / 41.4 bar									
4	300 psig / 20.7 bar									
Outlet Pressure Range										
A	-30 in Hg~15psig / -30 in Hg~1.0 bar									
0	3~30 psig / 0.2~2.1 bar									
1	3~60 psig / 0.2~4.1 bar									
2	4~100 psig / 0.3~6.9 bar									
3	4~150 psig / 0.3~10.3 bar									
Gauge Port Option										
0	None (Fig. A)									
1	1/4" Internal UCR (Fig. B)									
2	1/4" Internal UCR (Fig. C)									
3	1/4" Internal UCR (Fig. D)									
4	1/4" Male Swivel (Fig. B)									
5	1/4" Male Swivel (Fig. C)									
6	1/4" Male Swivel (Fig. D)									
7	1/4" Female Swivel (Fig. B)									
8	1/4" Female Swivel (Fig. C)									
9	1/4" Female Swivel (Fig. D)									
Outlet Gauge										
None	No Gauge									
0	-30 inHg~30 psig									
1	0~60 psig									
2	0~100 psig									
3	0~160 psig									
4	0~200 psig									
Inlet Gauge										
None	No Gauge									
A	0~300 psig									
B	0~600 psig									
C	0~1000 psig									
D	0~3500 psig									
Body Material										
2	316L VAR Stainless Steel									
4	316L Stainless Steel									
Internal Surface Finish										
None	EP – Electro Polished									
BA	BA									
Trim Material										
None	316 SS									
H	Hastelloy®									
Seat Material										
None	PCTFE									
V	Vespel®									

Ordering Information & Dimensions



RCTS1 Series

Tied Diaphragm

Specification

Pressure Ratings

Per criteria of ANSI/ASME B31.3

Max. Inlet Pressure	600 or 3500 psig (41.4 or 241 bar)
Outlet Pressure Range	30, 60, 100, 150 psig (2.1, 4.1, 6.9, 10.3 bar)
Design Proof Pressure	150% of maximum rated

Operating Temperature

PCTFE Seat	-40~60°C (-40°F~140°F)
Vespel® Seat	-40~177°C (-40°F~350°F)

Flow Capacity

3500 psig / 241 bar	0.06 Cv
600 psig / 41.4 bar	0.15 Cv

Helium Leak Test

Inboard Leak Rate	1x10 ⁻⁹ atm cc/sec He
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Media Contact Materials

Body	316L Stainless Steel
Diaphragm	316L Stainless Steel or Hastelloy®
Seat	PCTFE (Optional Vespel®)
Poppet	316 Stainless Steel or Hastelloy®
Retainer	316L Stainless Steel

Internal Surface Finish

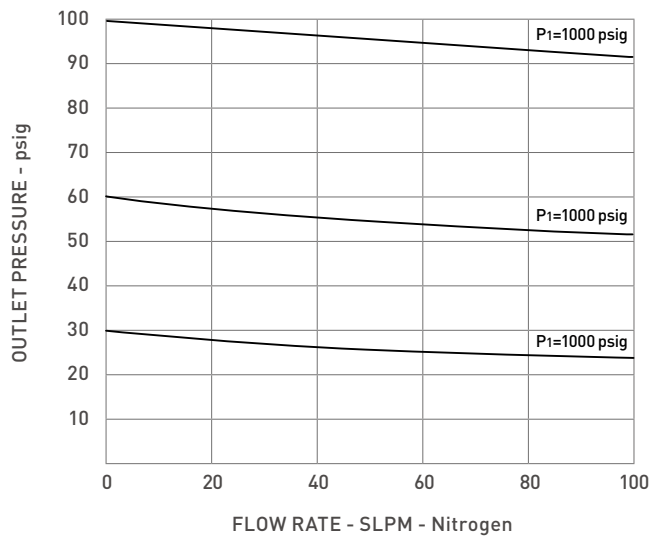
Designator	Surface Finish(μm)	
	Average	Maximum
BA	< 0.4	< 1.6
EP	< 0.125	< 0.4



Features

- The RCTS1 series ultra high purity, tied diaphragm pressure reducing regulator provides excellent stability of set pressure with accuracy, sensitivity.
- Low internal volume
- Metal to metal diaphragm seals provide enhanced leak integrity
- Positive shutoff seal reduces creep
- Optimum performance and cleanliness at a great value
- All performed in class 100 and class 10 clean rooms

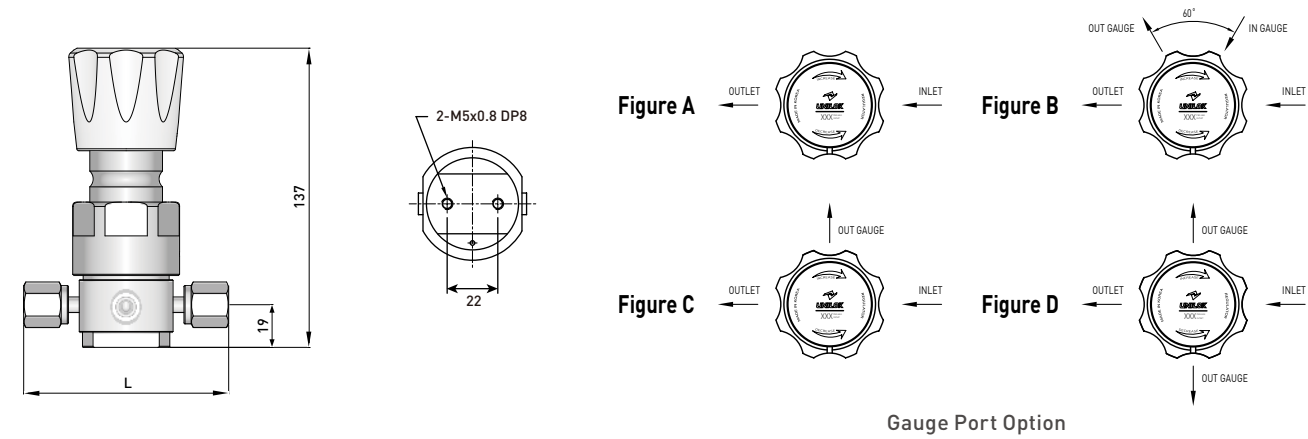
Flow Chart



How To Order

RCTS1	C	-	04F	-	22	2	2		-	2			
Regulator Type	Connection Type	Connection Size		Inlet / Outlet Pressure		Gauge Port Option	Outlet Gauge	Inlet Gauge		Body Material	Surface Finish	Trim Material	Seat Material
Regulator Type													
RCTS1	UHP Regulator												
Connection Type													
C-*M	Male UCR Swivel												
C-*F	Female UCR Swivel												
WB-*T	Tube Butt Weld												
Connection Size													
04	1/4 inch												
Maximum Inlet Pressure													
1	3500 psig / 241 bar (0.06 Cv)												
2	600 psig / 41.4 bar (0.15 Cv)												
4	3500 psig / 241 bar (0.15 Cv)												
Outlet Pressure Range													
0	1~30 psig / 0.1~2.1 bar												
1	1~60 psig / 0.1~4.1 bar												
2	1~100 psig / 0.1~6.9 bar												
3	1~150 psig / 0.1~10.3 bar												
Gauge Port Option													
0	None (Fig. A)												
1	1/4" Internal UCR (Fig. B)												
2	1/4" Internal UCR (Fig. C)												
3	1/4" Internal UCR (Fig. D)												
4	1/4" Male Swivel (Fig. B)												
5	1/4" Male Swivel (Fig. C)												
6	1/4" Male Swivel (Fig. D)												
7	1/4" Female Swivel (Fig. B)												
8	1/4" Female Swivel (Fig. C)												
9	1/4" Female Swivel (Fig. D)												
Outlet Gauge													
None	No Gauge												
0	0~30 psig												
1	0~60 psig												
2	0~100 psig												
3	0~160 psig												
4	0~200 psig												
Inlet Gauge													
None	No Gauge												
A	0~600 psig												
B	0~1000 psig												
C	0~2500 psig												
D	0~3500 psig												
Body Material													
2	316L VAR Stainless Steel												
4	316L Stainless Steel												
Internal Surface Finish													
None	EP – Electro Polished												
BA	BA												
Trim Material													
None	316 SS												
H	Hastelloy®												
Seat Material													
None	PCTFE												
V	Vespel®												

Ordering Information & Dimensions



Part Number		End Connection		Dimensions(mm)
		Inlet	Outlet	L ± 1
RCTS1	C-04M-	1/4" Male UCR Swivel		94
	C-04F-	1/4" Female UCR Swivel		94
	WB-04T-	1/4" Tube Butt Weld		76.2

Dimensions are for reference only and are subject to change without prior notice.

RCTS2 Series

Tied Diaphragm

Specification

Pressure Ratings

Per criteria of ANSI/ASME B31.3

Max. Inlet Pressure	600, 1000, 2500, 3000 psig (41.4, 69.0, 172, 206 bar)
Outlet Pressure Range	30, 60, 100, 130, 150 psig (2.1, 4.1, 6.9, 8.9, 10.3 bar)
Design Proof Pressure	150% of maximum rated

Operating Temperature

PCTFE Seat	-40~60°C (-40°F~140°F)
Vespel® Seat	-40~177°C (-40°F~350°F)

Flow Capacity

Flow Capacity	0.5 Cv 0.45 Cv (3000 psig, PCTFE Seat only)
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Helium Leak Test

Inboard Leak Rate	1×10^{-9} atm cc/sec He
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Media Contact Materials

Body	316L Stainless Steel
Diaphragm	316L Stainless Steel or Hastelloy®
Seat	PCTFE (Optional Vespel®)
Spring	316 Stainless Steel or Inconel®
Poppet, Retainer	316 Stainless Steel or Hastelloy®

Internal Surface Finish

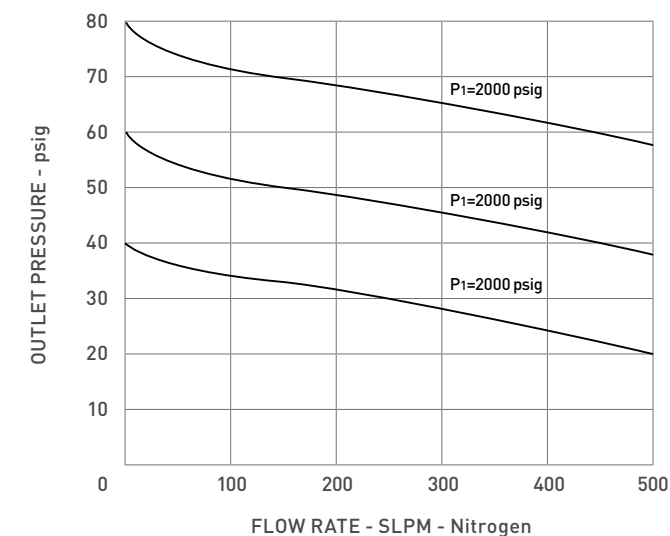
Designator	Surface Finish(μm)	
	Average	Maximum
BA	< 0.4	< 1.6
EP	< 0.125	< 0.4



Features

- The RCTS2 series ultra high purity, tied diaphragm pressure reducing regulator provides excellent stability of set pressure with accuracy, sensitivity.
- Low internal volume
- Metal to metal diaphragm seals provide enhanced leak integrity
- Positive shutoff seal reduces creep
- Optimum performance and cleanliness at a great value
- All performed in class 100 and class 10 clean rooms

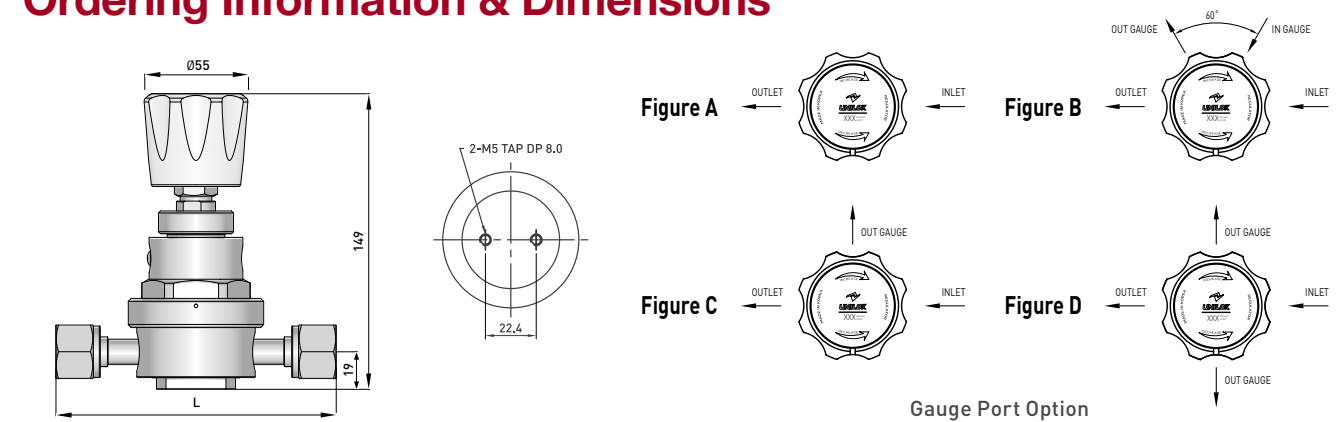
Flow Chart



How To Order

[illegible]

Ordering Information & Dimensions



Part Number		End Connection		Dimensions(mm)
		Inlet	Outlet	L ± 1
RCTS2	C-04M-	1/4" Male UCR Swivel		101.6
	C-04F-	1/4" Female UCR Swivel		94
	C-08M-	1/2" Male UCR Swivel		132.6
	C-08F-	1/2" Female UCR Swivel		132.6
	WB-06T-	3/8" Tube Butt Weld		94
	WB-08T-	1/2" Tube Butt Weld		94

Dimensions are for reference only and are subject to change without prior notice.

RCTHF4 Series

Tied Diaphragm

Specification

Pressure Ratings

Per criteria of ANSI/ASME B31.3

Max. Inlet Pressure	150, 250 psig (10.3, 17.2 bar)
Outlet Pressure Range	30, 60, 100 psig (2.1, 4.1, 6.9 bar)
Design Proof Pressure	150% of maximum rated

Operating Temperature

PCTFE Seat	-40~60°C (-40°F~140°F)
PTFE Seat	-40~71°C (-40°F~160°F)

Flow Capacity

Flow Capacity	1.8 Cv
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Helium Leak Test

Inboard Leak Rate	1x10 ⁻⁹ atm cc/sec He
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Media Contact Materials

Body	316L Stainless Steel
Diaphragm	316L Stainless Steel or Hastelloy®
Seat	PCTFE (Optional PTFE)
Poppet	316 Stainless Steel or Hastelloy®
Rear Seal	316L Stainless Steel

Internal Surface Finish

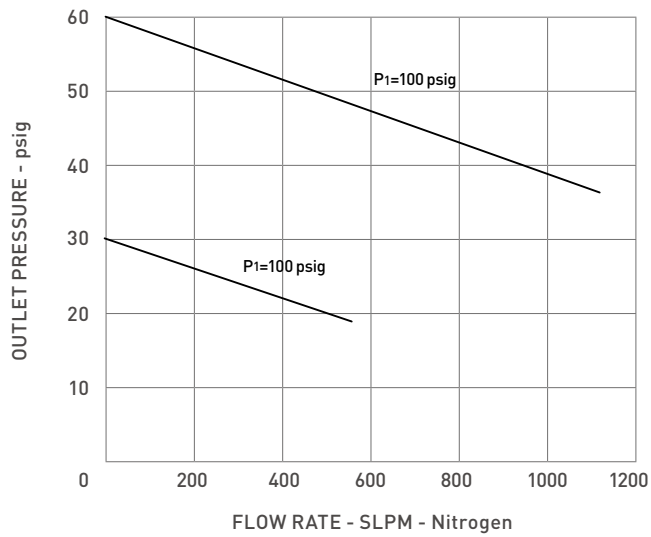
Designator	Surface Finish(μm)	
	Average	Maximum
BA	< 0.4	< 1.6
EP	< 0.125	< 0.4



Features

- The RCTHF4 series ultra high purity, tied diaphragm pressure reducing regulator with high flow capacities
- Internal springless and threadless design and low internal volume minimizes particles
- Metal to metal diaphragm seals provide enhanced leak integrity
- Positive shutoff seal reduces creep
- Optimum performance and cleanliness at a great value
- All performed in class 100 and class 10 clean rooms

Flow Chart

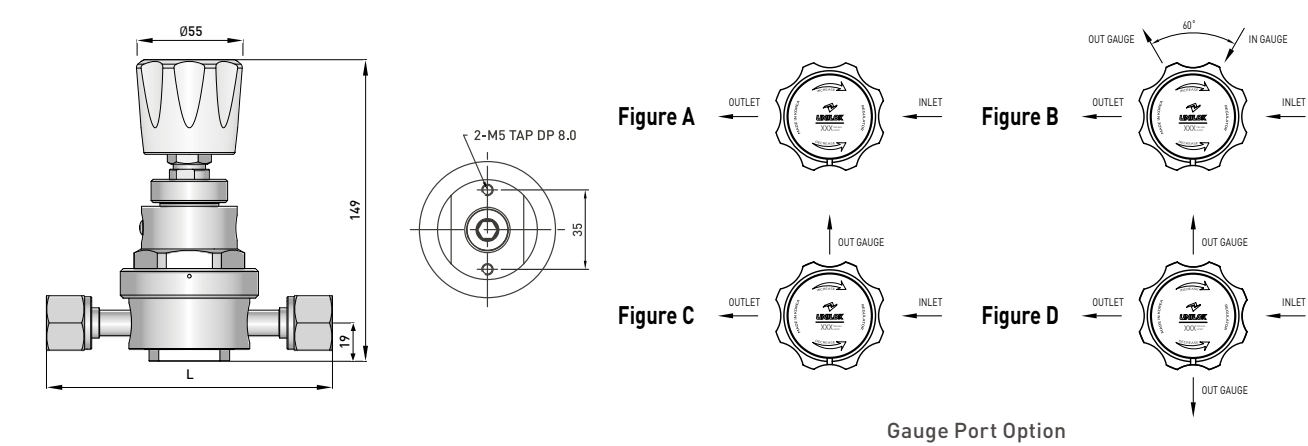


How To Order

RCTHF4	C	-	08F	-	12	2	2		-	2			
Regulator Type	Connection Type		Connection Size		Inlet / Outlet Pressure	Gauge Port Option	Outlet Gauge	Inlet Gauge		Body Material	Surface Finish	Trim Material	Seat Material

Regulator Type		Gauge Port Option		Inlet Gauge	
RCTHF4	UHP Regulator	0	None (Fig. A)	None	No Gauge
Connection Type		1	1/4" Internal UCR (Fig. B)	A	0~160 psig
C-*M	Male UCR Swivel	2	1/4" Internal UCR (Fig. C)	B	0~300 psig
C-*F	Female UCR Swivel	3	1/4" Internal UCR (Fig. D)	Body Material	
WB-*T	Tube Butt Weld	4	1/4" Male Swivel (Fig. B)	2	316L VAR Stainless Steel
Connection Size		5	1/4" Male Swivel (Fig. C)	4	316L Stainless Steel
04	1/4 inch	6	1/4" Male Swivel (Fig. D)	Internal Surface Finish	
08	1/2 inch	7	1/4" Female Swivel (Fig. B)	None	EP – Electro Polished
12	3/4 inch	8	1/4" Female Swivel (Fig. C)	BA	BA
Maximum Inlet Pressure		9	1/4" Female Swivel (Fig. D)	Trim Material	
1	250 psig / 17.2 bar	Outlet Gauge		None	316 SS
2	150 psig / 10.3 bar	None	No Gauge	H	Hastelloy®
Outlet Pressure Range		0	0~30 psig	Seat Material	
0	1~30 psig / 0.1~2.1 bar	1	0~60 psig	None	PCTFE
1	1~60 psig / 0.1~4.1 bar	2	0~100 psig	T	PTFE
2	1~100 psig / 0.1~6.9 bar	3	0~160 psig		

Ordering Information & Dimensions



Part Number		End Connection		Dimensions(mm)
		Inlet	Outlet	L ± 1
RCTHF4	C-04M-	1/4" Male UCR		100.8
	C-08M-	1/2" Male UCR Swivel		142
	C-08F-	1/2" Female UCR Swivel		142
	WB-08T-	1/2" Tube Butt Weld		94
	WB-12T-	3/4" Tube Butt Weld		146

Dimensions are for reference only and are subject to change without prior notice.