SERIES MOD | SUPPLY BOARD

TEESING
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- Diaphragm single stage
- Balanced-Valve Technology
- Purity up to 5.5 (6.0 without the ball valve)
- Inlet pressure: 200 bar (2900 psi) or 300 bar (4350 psi)
- Outlet pressure: 10/16/30/50 bar 145/232/435/725 psi

★ 1 duobloc
★ 3 inlets/1 outlet
★ Inlet/outlet pressure gauges
★ 1 safety relief valve
★ 1 purge outlet
★ O_2 application compatible (see technical data)
★ Acetylene version available
★ Propane version available

Special requirements on request

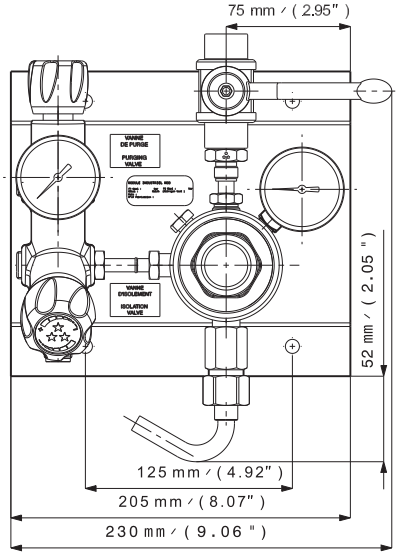
APPLICATIONS

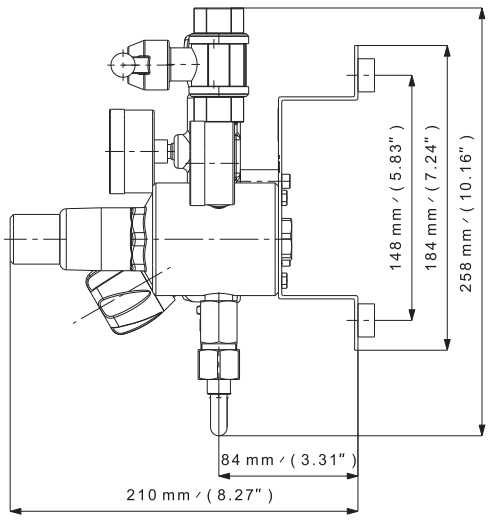
- Used in combination with a switch over board for the regulation of the emergency source during maintenance on the principal source. This avoids installing extensions and reduces the amount of leaking points.
- Suitable for the high flow supply of industrial gases except toxic and corrosive gases.

KEY FEATURES

- Possible to connect 2 gas cylinders and a gas for purging operation (up to 3 cylinders without any extension - without using the purge line).
- Ready to install: all components are pre-mounted on a board.
- Best-of-class pressure stability with Balanced-Valve Technology: the effect of inlet pressure fluctuations on outlet pressure are minimized. Balanced-Valve Technology enables the delivery of a very stable outlet pressure and flow even with high flow line regulators.
- Non-whipping filter improves safety of the operator during the cylinder replacement.
- Can be equipped with an outlet ¼ turn shut-off valve (Multi-turn valve with 30 bar or 50 bar version for oxygen use).
- Can be connected to an alarm box using contact gauges.
- Acetylene version available: P1 = 25 bar / P2 = 1 bar/Q = 6,5 Nm^3/h.
- For use with acetylene this product must be installed with a flash back arrestor complying with the standard EN 730 located downstream.
- Propane version available: P1 = 25 bar/P2 = 4 bar/Q = 10 Nm^3/h.

3 inlet ports



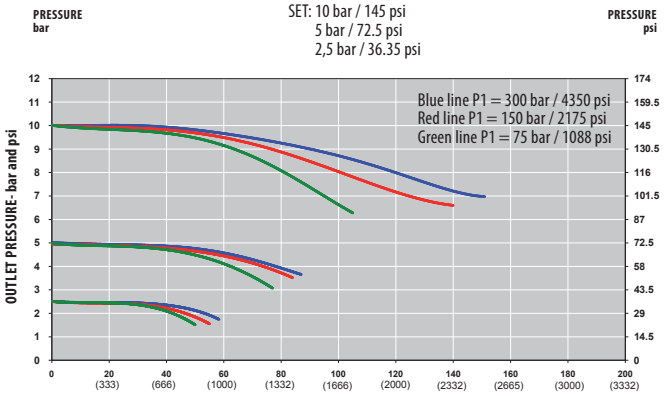


SPECIFICATIONS

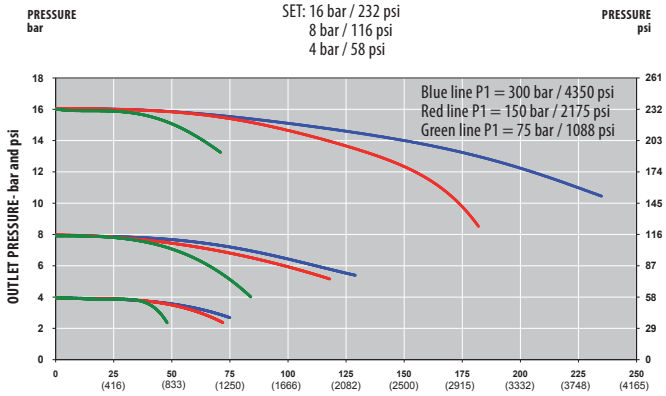
Female ports	In: G ⅜ - Out: G ½ In: NPT ⅜ - Out: G ½
Seat seal	PCTFE
O-ring	EPDM - Standard NBR FPM
Diaphragm (regulator)	AISI 304 or Hastelloy®
Weight	± 6,0 kg ± 13.0 lbs
Leak rate	w/outlet valve: 1.10^{-4} mbar ℓ/s He w/o outlet valve: 1.10^{-8} mbar ℓ/s He
Temperature range	-20°C to + 60°C -4°F to + 140°F
Gauges	High and low pressure (M10 x 1 or G ¼)
Inlet pressure	200 bar / 300 bar 2900 psi / 4350 psi AD and PR4: 25 bar (362.5 psi)
Outlet pressure	10/16/30/50 bar 145/232/435/725 psi AD: 1 bar (14.5 psi) PR4: 4 bar (58 psi)
Nominal Flow 200 bar version	70/110/150/180 Nm^3/h (N_2)
Nominal Flow 300 bar version	50/70/100/130 Nm^3/h (N_2)
Nominal Flow AD and PR4	AD: 6,5 Nm^3/h PR4: 10 Nm^3/h
Oxygen use	OK with inlet pressure 200 and 300 bar

FLOW CURVES

FLOW CURVE S 800-10 REGULATOR
SET: 10 bar / 145 psi
5 bar / 72.5 psi
2,5 bar / 36.35 psi



FLOW CURVE SL 800-16 REGULATOR
SET: 16 bar / 232 psi
8 bar / 116 psi
4 bar / 58 psi



PRODUCT CONFIGURATOR

Inlet pressure		Outlet		Body Material		End Connections		O-ring Material	Gauges		Fix or adjustable Outlet Pressure		Oulet valve		Configuration	
MOD300		16		L		G		EPDM	1		FX		V		A	
200 bar 2900 psi	200	10 bar 145 psi	10	Raw brass	LB	In: G ⅜ Out: G ½ Female	G	EPDM - Standard	With gauges - standard	1	With fixed P2 (standard)	FX	With outlet shut-off valve	V	Standard configuration	A
300 bar 4350 psi	300	16 bar 232 psi	16	Chrome plated brass	L	In: NPT ⅜ Out: G ½ Female	N	NBR	With HP inductive contact gauge	2	With adjustable P2 (handwheel)	ADJ	Without outlet shut-off valve	NV	"Mirror" version - duobloc on right side	R
		30 bar 435 psi	30					FPM	With HP sliding contact gauge	3					With connected purge	CL
		30 bar 435 psi oxygen use	30 OX						With LP inductive contact gauge	4					"Mirror" with connected purge	RCL
		50 bar 725 psi	50						With LP sliding contact gauge	5						
		50 bar 725 psi oxygen use	50 OX						With HP & LP inductive contact gauges	6						
		Acetylene special version (P2 = 1 bar)	AD													
		Propane special version (P2 = 4 bar)	PR4													

SERIES CM 104 | SUPPLY BOARD

- Diaphragm single Stage
- Purity up to 6.0
- Inlet Pressure:
  200 bar (2900 psi)
- Outlet Pressure:
  10/25/50 bar
  145/363/725 psi
- Ammonia (NH_3) version:
  P1 = 8 bar (116 psi)
  P2 = 3 bar (43.5 psi)

★ 1 duobloc
★ 3 inlets/1 outlet
★ Inlet/outlet pressure gauges
★ 1 safety relief valve
★ 1 purge outlet
★ Equipped with
SI 220 regulator
★ Only in stainless steel

Special requirements on request

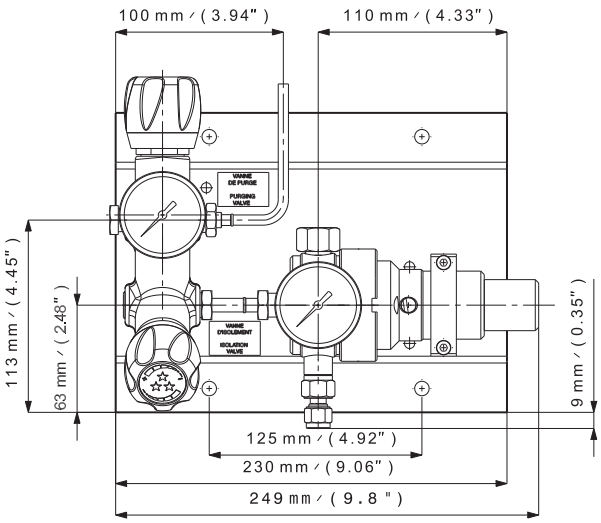
3 inlet ports

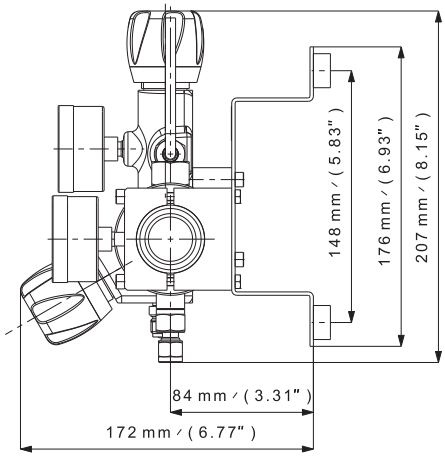
APPLICATIONS

- Used in combination with a switch over board for the regulation of the emergency source during maintenance on the principal source. This avoids installing some extension and reducing the amount of leaking points.
- Suited for pure and corrosive gases for high purity applications
- Specifically dedicated to the supply of gas to analyzers and to the creation of controlled atmosphere in laboratories, control units.

KEY FEATURES

- Possible to connect 2 gas cylinders and a gas for purging operation (up to 3 cylinders without any extension - without using the purge line).
- Ready to install with all components pre-mounted on a board.
- Can be equipped with a collection tube on the safety relief valve and purge outlet.
- Also can be equipped with an outlet shut-off valve.
- The CMI 104 can be connected to an alarm box using contact gauges.
- NH_3 version available:
  P1 = 8 bar/P2 = 3 bar/Q = 5 Nm^3/h.





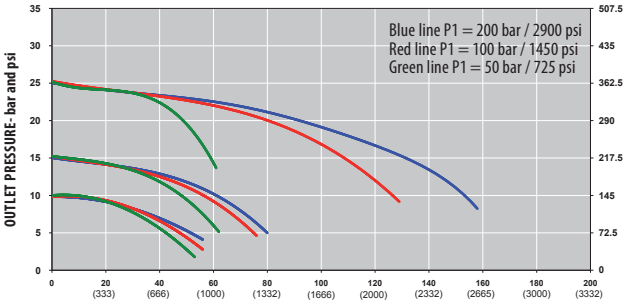
SPECIFICATIONS

Female ports	G ⅜ (inlet/outlet) or ¼ NPT (inlet/outlet)	**Weight**	± 4,5 kg ± 9.9 lbs	**Inlet pressure**	200 bar (2900 psi) NH_3: 8 bar (116 psi)
Seat seal	PCTFE	**Leak rate**	10^{-8} mbar ℓ/s He	**Outlet pressure**	10/25/50 bar 145/363/725 psi NH_3: 3 bar (43.5 psi)
O-ring (safety relief valve)	EPDM - standard NBR FPM	**Temperature range**	-20°C to + 60°C -4°F to + 140°F	**Nominal Flow**	10/10/50 Nm^3/h (N_2) NH_3: 5 Nm^3/h (NH_3)
Diaphragm	AISI 304 Hastelloy® (50 bar)	**Gauges**	High and low pressure (M10 x 1 or ⅛ NPT)	**Oxygen use**	No

FLOW CURVES

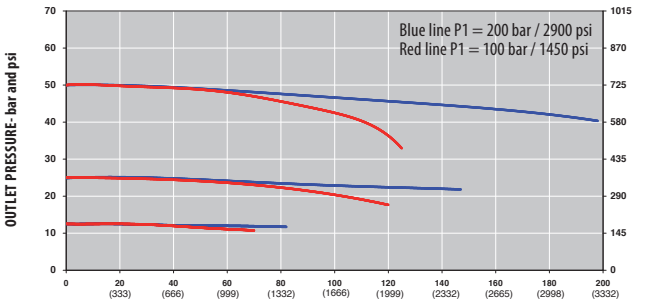
FLOW CURVE S 220-25 REGULATOR

SET: 25 bar / 362.5 psi
15 bar / 217.5 psi
10 bar / 145 psi



FLOW CURVE S 220-50 REGULATOR

SET: 50 bar / 725 psi
25 bar / 362.5 psi
12,5 bar / 181.25 psi



PRODUCT CONFIGURATOR

Body Material			Outlet Pressure		End Connections		O-ring Material (safety relief valve)	Gauges		Outlet Valve		Configuration	
CMI		104	10		G		EPDM	1		NV		A	
Stainless steel	CMI		10 bar 145 psi	10	G ⅜ - Female	G	EPDM - standard	with gauges - standard	1	without outlet shut-off valve (standard)	NV	standard configuration	A
			25 bar 362.5 psi	25	NPT ¼ - Female	N	NBR	with HP inductive contact gauge	2	with outlet shut-off valve	V	"mirror" version - duoblock on right side	R
			50 bar 725 psi	50			FPM	with HP sliding contact gauge	3			with connected purge and safety valve	CL
			Ammonia special version (P2 = 3 bar)	NH_3				with LP inductive contact gauge	4			"mirror" with connected purge and S.V.	RCL
								with LP sliding contact gauge	5				
								with HP & LP sliding contact gauges	6				

SERIES CM 104 UC | ULTRA CLEAN SUPPLY BOARD

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- Diaphragm single stage
- UHP applications
- Inlet pressure: 200 bar (2900 psi)
- Outlet pressure: 15 bar (218 psi)

★ 1 straight duobloc Ultra Clean
★ 2 inlets/1 outlet
★ 1 outlet face seal ¼ turn shut-off valve
★ Inlet/outlet pressure gauges
★ 1 purge outlet
★ 1 burst disc
★ Regulation done by a SI 220 Ultra Clean regulator

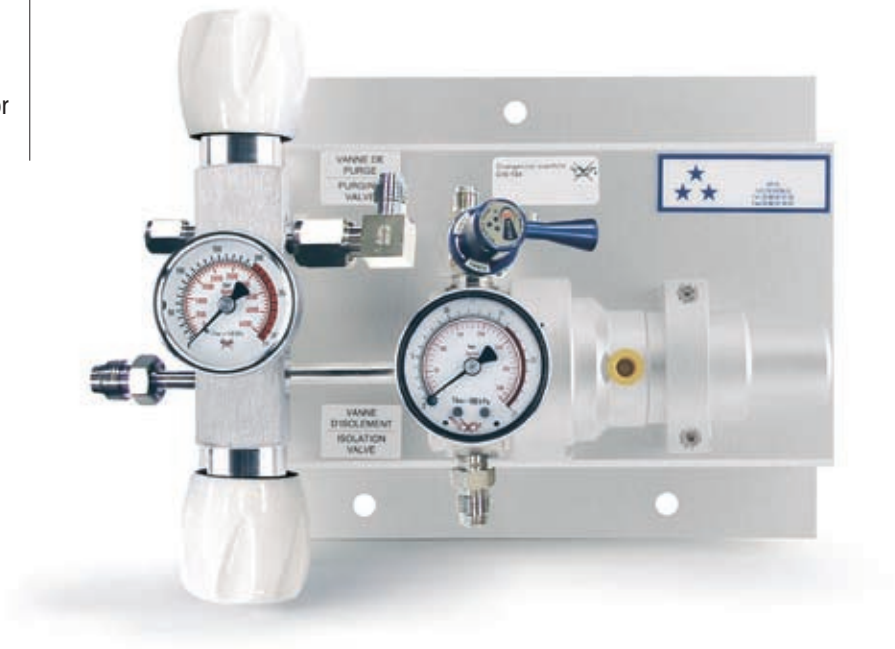
Special requirements on request

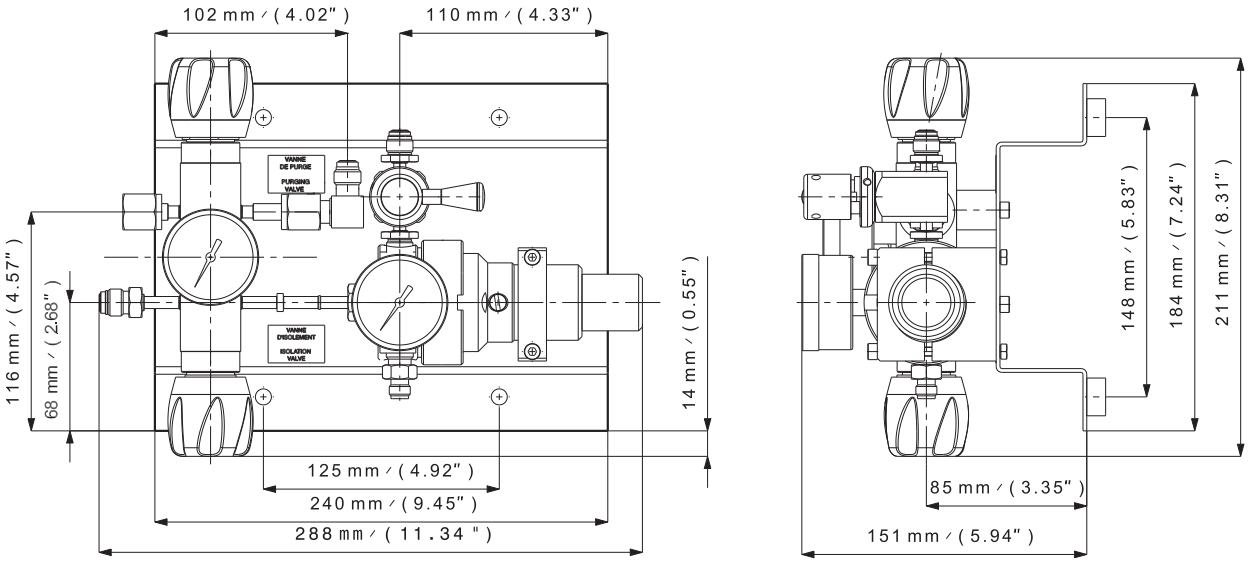
APPLICATIONS

- Used in combination with a switch over board for the regulation of the emergency source during maintenance on the principal source. This avoids installing some extension and reducing the amount of leaking points.
- Ideally suited for pure and corrosive gases for high purity applications - primarily dedicated to the supply of gas to analyzers and to the creation of controlled atmosphere in laboratories, control units.

KEY FEATURES

- Possible to connect 1 gas cylinder and a gas for purging operation.
- Ready to install with all components pre-mounted on a board.
- The CMI 104 can be connected to an alarm box using a contact gauge.



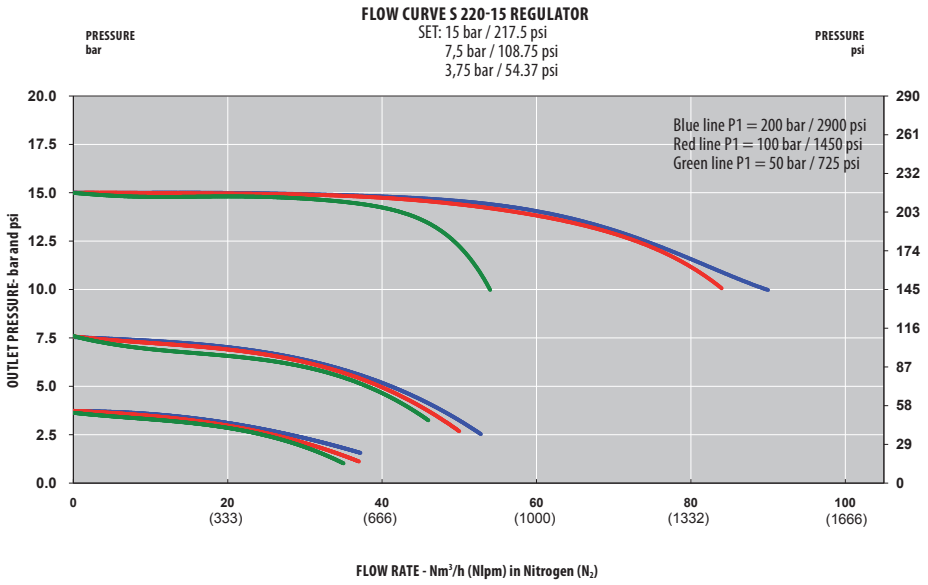


ROTAREX EQUIPMENT

SPECIFICATIONS

Female ports	¼ face seal (inlet/outlet)	**Weight**	± 4,5 kg ± 9.9 lbs	**Inlet pressure**	200 bar 2900 psi
Surface finish	< 0.4 µm Ra (15 µin Ra)	**Leak rate**	10^{-9} mbar ℓ/s He	**Outlet pressure**	15 bar 218 psi
Seat seal	PCTFE	**Temperature range**	-20°C to + 60°C -4°F to + 140°F	**Nominal Flow**	25 Nm^3/h (N_2)
Diaphragm	Hastelloy®	**Gauges**	High and low pressure (¼ face seal)	**Oxygen use**	No

FLOW CURVES



PRODUCT CONFIGURATOR

Body Material					Gauges	
CMI		104	UC	15	1	
Stainless steel	CMI				with gauges - standard	1
					with HP inductive contact gauge	2
					with HP sliding contact gauge	3
					with LP inductive contact gauge	4
					with LP sliding contact gauge	5
					with HP & LP sliding contact gauges	6

SERIES CM 204/304 | SUPPLY BOARD

- Diaphragm single stage
- Purity up to 6.0
- Inlet pressure:
  200 bar (2900 psi)
  or 300 bar (4350 psi)
- Outlet pressure:
  10 bar (145 psi)
  or 16 bar (232 psi)
- Acetylene (C_2H_2) version:
  P1 = 20 bar (290 psi)
  P2 = 1 bar (14.5 psi)

★ 1 duobloc
★ 3 inlets/1 outlet
★ Inlet/Outlet pressure gauges
★ 1 safety relief valve
★ 1 purge outlet
★ O_2 application compatible (200 bar version)
★ Series 215 regulator integrated

Special requirements on request

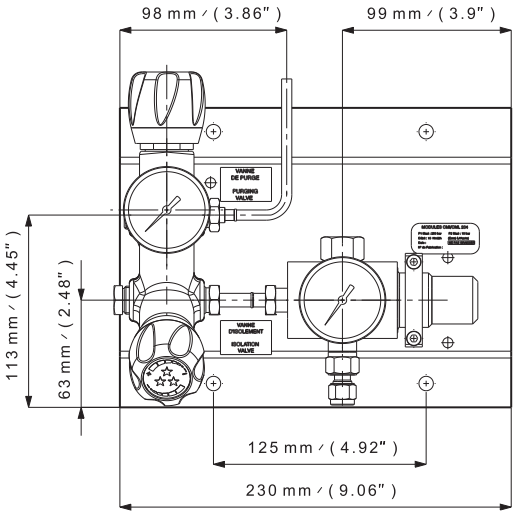
3 inlet ports

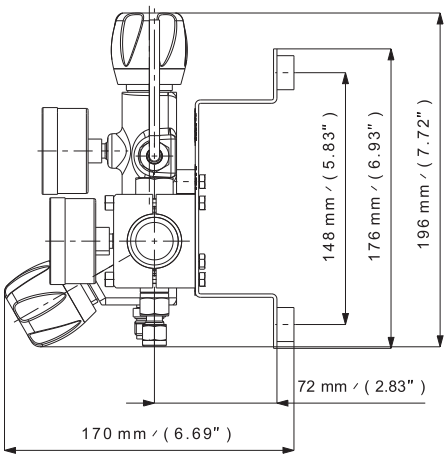
APPLICATIONS

- Used in combination with a switch over board for the regulation of the emergency source during maintenance on the principal source. This avoids installing extensions and reduces the amount of potential leak-points.
- Ideally suited for pure and corrosive gases for high purity applications dedicated to the supply of gas to analyzers and to the creation of controlled atmosphere in laboratories, control units, and for petrochemical application.
- Acetylene version is recommended for atomic absorption analyzers.

KEY FEATURES

- Possible to connect 2 gas cylinders and a gas for purging operation (up to 3 cylinders without any extension - without using the purge line).
- Ready to install with all components are mounted on a board.
- The CM 204 can be connected to an alarm box using contact gauges.
- Can be equipped with a collection tube on the safety relief valve and purge outlet.
- Can also be equipped with an outlet shut-off valve.
- Acetylene version available:
  P1 = 20 bar / P2 = 1 bar / Q = 1 Nm^3/h.
- For use with acetylene this product must be installed with a flash back arrestor complying with the standard EN 730 located downstream.





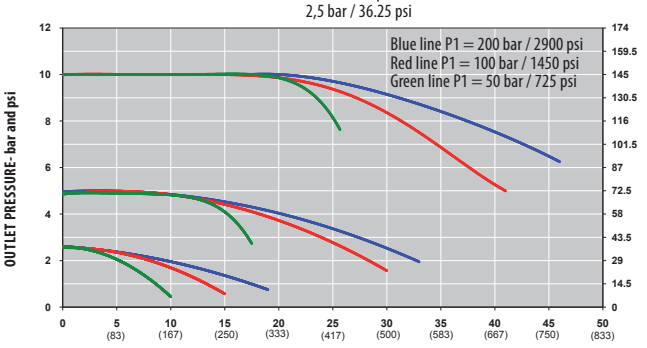
SPECIFICATIONS

Female ports	G ⅜ (inlet/outlet) or ¼ NPT (inlet/outlet)	**Weight**	± 4,5 kg ± 9.9 lbs	**Inlet pressure**	200 bar / 300* bar 2900 psi / 4350 psi AD: 20 bar (290 psi)
Seat seal	PCTFE	**Leak rate**	10^{-8} mbar ℓ/s He	**Outlet pressure**	10/16 bar 145/232 psi AD: 1 bar (14.5 psi)
O-ring	EPDM - standard NBR FPM	**Temperature range**	-20°C to + 60°C -4°F to + 140°F	**Nominal Flow**	10 Nm^3/h (N_2) 1 Nm^3/h (C_2H_2)
Diaphragm	AISI 304 Hastelloy®	**Gauges**	High and low pressure (M10 x 1 or ⅛ NPT)	**Oxygen use**	OK for brass and stainless steel, only with 200 bar inlet pressure

*Only in chrome plated version

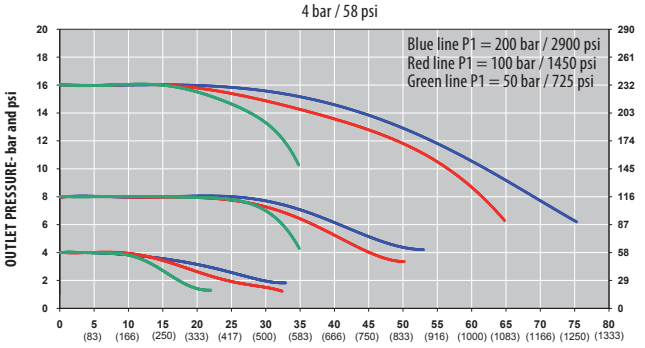
FLOW CURVES

FLOW CURVE S 215-10 REGULATOR
SET: 10 bar / 145 psi
5 bar / 72.5 psi
2,5 bar / 36.25 psi



FLOW RATE - Nm^3/h (Nlpm) in Nitrogen (N_2)

FLOW CURVE S 215-16 REGULATOR
SET: 16 bar / 232 Psi
8 bar / 116 Psi
4 bar / 58 psi



FLOW RATE - Nm^3/h (Nlpm) in Nitrogen (N_2)

PRODUCT CONFIGURATOR

Body Material		Inlet Pressure		Outlet Pressure		End Connections		O-ring Material	Gauges		Outlet Valve		Configuration	
CML		204		10		G		EPDM	1		NV		A	
Chrome Plated Brass	CML	200 bar 2900 psi	204	10 bar 145 psi	10	G ⅜ - Female	G	EPDM - standard	with gauges - standard	1	without outlet shut-off valve (standard)	NV	standard configuration	A
Stainless steel	CMI	300* bar 4350 psi	304	16 bar 232 psi	16	NPT ¼ - Female	N	NBR	with HP inductive contact gauge	2	with outlet shut-off valve	V	"mirror" version - duoblock on right side	R
				Acetylene version 1 bar (14.5 psi)	AD			FPM	with HP sliding contact gauge	3			with connected purge and safety valve	CL
									with LP inductive contact gauge	4			"mirror" with connected purge and S.V.	RCL
									with LP sliding contact gauge	5				
									with HP & LP sliding contact gauges	6				

*Only in chrome plated version

ROTAREX EQUIPMENT

SERIES CM 204 COMPACT | SUPPLY BOARD

- Diaphragm single stage
- Purity up to 6.0
- Inlet Pressure:
  200 bar (2900 psi)
- Outlet Pressure:
  10 bar (145 psi)
- Acetylene (C_2H_2) version:
  P1 = 20 bar (290 psi)
  P2 = 1 bar (14.5 psi)

★ 1 inlet/1 outlet
★ Inlet/outlet pressure gauges
★ 1 safety relief valve
★ SL/SI 215 regulator integrated

Special requirements on request

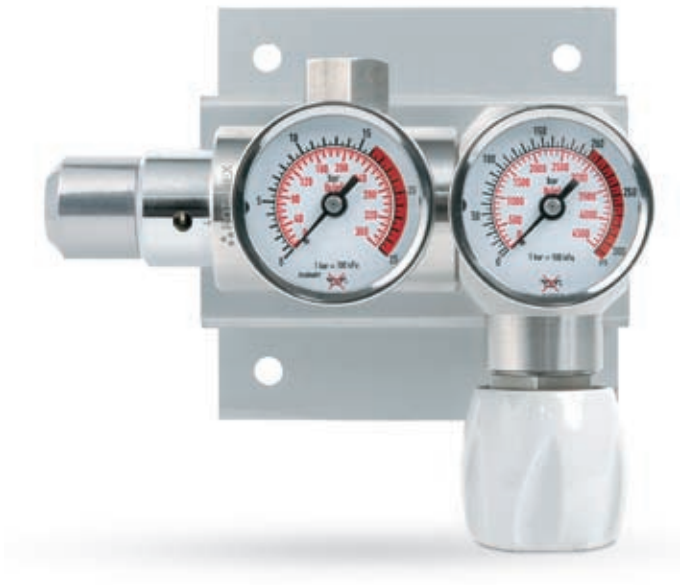
APPLICATIONS

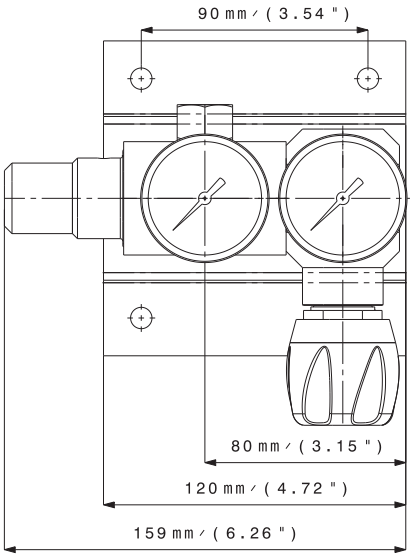
- Used in combination with a switch over board for the regulation of the emergency source during maintenance on the principal source. This avoids installing extensions and reduces the amount of potential leak-points.
- Ideally suited for high purity gases in laboratories and petrochemical industries.

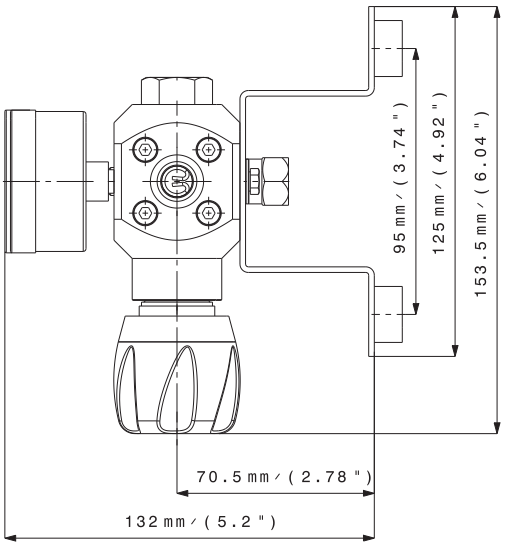
KEY FEATURES

- Ready to install due with all components pre-mounted on a board.
- Compact and ergonomic design make this supply board suitable for laboratories furniture.
- Can be connected to an alarm box using contact gauges.
- Acetylene version available:
  P1 = 20 bar/ P2 = 1 bar/Q = 1 Nm^3/h.
- For use with acetylene this product must be installed with a flash back arrestor complying with the standard EN 730 located downstream.

1 inlet port



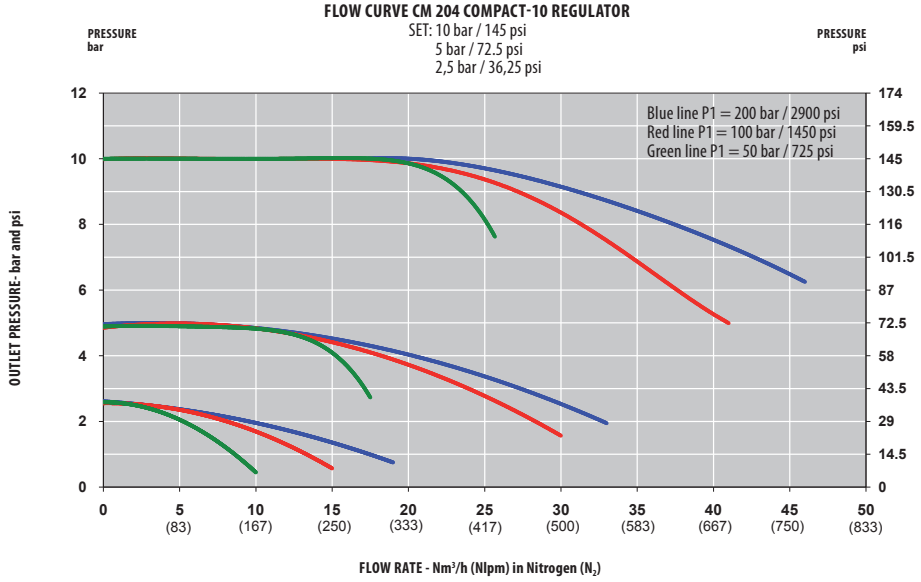




SPECIFICATIONS

Female ports	G ⅜ (inlet/outlet) or ¼ NPT (inlet/outlet)	**Weight**	± 4,5 kg ± 9.9 lbs	**Inlet pressure**	200 bar (2900 psi) AD: 20 bar (290 psi)
Seat seal	PCTFE	**Leak rate**	10^{-8} mbar ℓ/s He	**Outlet pressure**	10 bar (145 psi) AD: 1 bar (14.5 psi)
O-ring	EPDM - standard NBR FPM	**Temperature range**	-20°C to + 60°C -4°F to + 140°F	**Nominal Flow**	10 Nm^3/h (N_2) 1 Nm^3/h (C_2H_2)
Diaphragm	AISI 304 Hastelloy®	**Gauges**	High and low pressure (M10 x 1 or ⅛ NPT)	**Oxygen use**	No

FLOW CURVES



PRODUCT CONFIGURATOR

Body Material			Outlet Pressure		End Connections		O-ring Material	Gauges	
CML		204 COMPACT	10		G		EPDM	1	
Chrome Plated Brass	CML		10 bar 145 psi	10	G ⅜ - Female	G	EPDM - standard	with gauges - standard	1
Stainless steel	CMI		Acetylene version 1 bar (14.5 psi)	AD	NPT ¼ - Female	N	NBR	with HP inductive contact gauge	2
							FPM	with HP sliding contact gauge	3
								with LP inductive contact gauge	4
								with LP sliding contact gauge	5
								with HP & LP sliding contact gauges	6

SERIES CM 254 / CM 454 | SUPPLY BOARD

- Piston single stage
- Purity up to 6.0
- Inlet Pressure:
  200 bar (2900 psi)
- Outlet Pressure:
  60 bar (870 psi)
  or 160 bar (2320 psi)

★ 1 duobloc
★ 3 inlets/1 outlet
★ Inlet/outlet pressure gauges
★ 1 purge outlet
★ O_2 application compatible
★ SL 250 regulator integrated (CM 254)
★ SL 400 regulator integrated (CM 454)

Special requirements on request

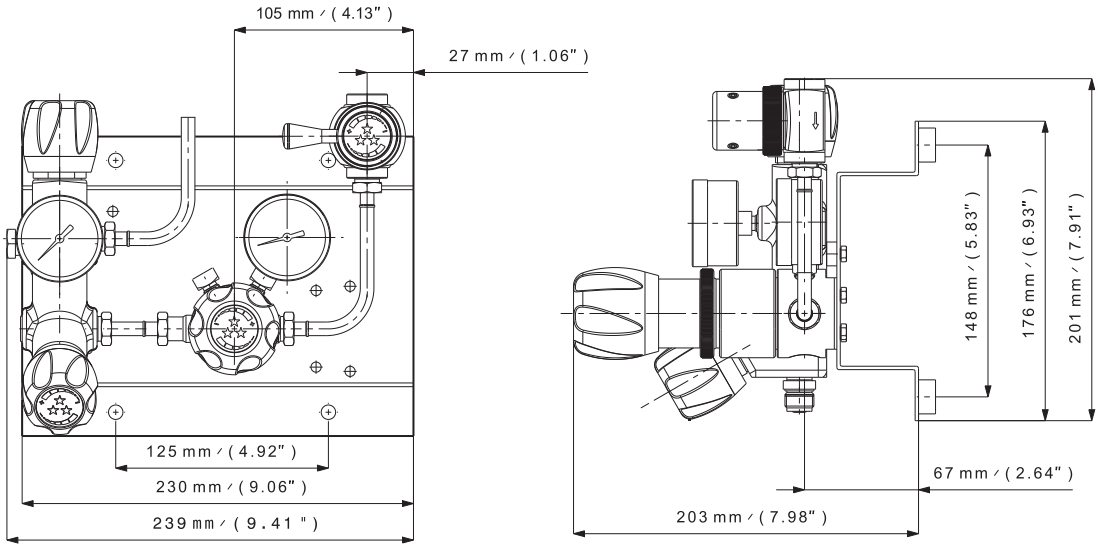
APPLICATIONS

- Ideally suited for pure gases for high purity applications to put vessels under pressure and for leak detection and purge of pipe work.
- Used in combination with a switch over board for the regulation of the emergency source during maintenance on the principal source. This avoids installing some extension and reducing the amount of leaking points.

KEY FEATURES

- Adjustable outlet pressure
- Possible to connect 2 gas cylinders and a gas for purging operation (up to 3 cylinders without any extension - without using the purge line).
- Ready to install with all components pre-mounted on a board.
- Connectable to an alarm box using contact gauges.
- Can also be equipped with a ¼ turn shut-off valve on the outlet.
- Collection tube available on the safety relief valve and purge outlet.
- Downstream regulation system can be decompressed by turning the hand wheel counter-clockwise.

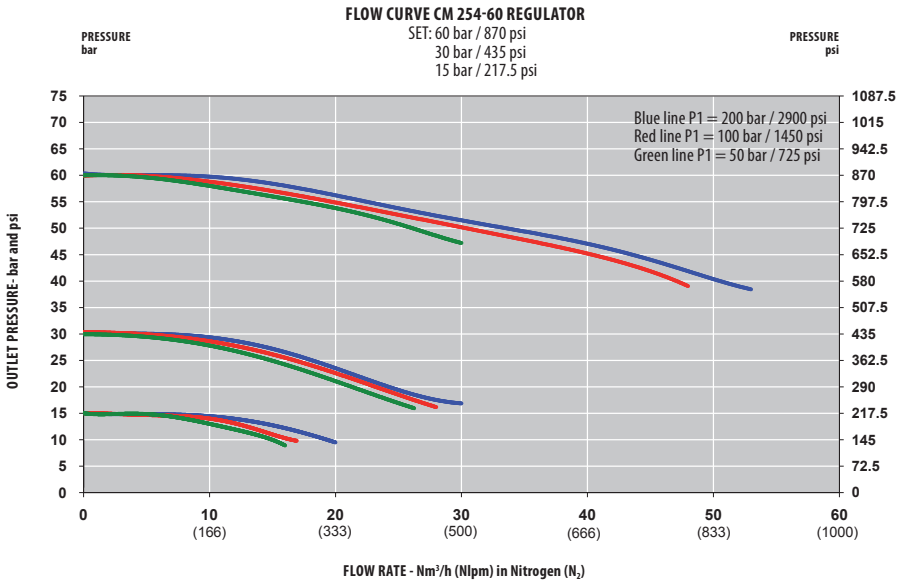
3 inlet ports



SPECIFICATIONS

Female ports	G ⅜ (inlet/outlet)	**Weight**	± 4,5 kg ± 9.9 lbs	**Inlet pressure**	200 bar 2900 psi
Seat seal	PCTFE	**Leak rate**	10^{-8} mbar ℓ/s He	**Outlet pressure**	60/160 bar 870/2320 psi
O-ring	NBR - standard EPDM FPM	**Temperature range**	-20°C to + 60°C -4°F to + 140°F	**Nominal Flow**	10/30 Nm^3/h (N_2)
Piston	AISI 316L	**Gauges**	High and low pressure (M10 x 1)	**Oxygen use**	OK for brass with 200 bar inlet pressure

FLOW CURVES



PRODUCT CONFIGURATOR

Body Material		Outlet Pressure		End Connections		O-ring Material	Gauges		Outlet valve		Configuration	
CML		454		G		NBR	1		V		A	
Chrome Plated Brass	CML	60 bar 870 psi	254	G ⅜ - Female	G	NBR - standard	with gauges - standard	1	without outlet shut-off valve (standard)	NV	Standard Configuration	A
		160 bar 2320 psi	454			EPDM	with HP inductive contact gauge	2	with outlet shut-off valve	V	with connected purge and safety valve	CL
						FPM	with HP sliding contact gauge	3				
							with LP inductive contact gauge	4				
							with LP sliding contact gauge	5				
							with HP & LP sliding contact gauges	6				

SERIES CM 504 | SUPPLY BOARD

- Diaphragm single stage
- Balanced-Valve Technology
- Purity up to 6.0
- Inlet pressure:
  200 bar (2900 psi)
- Outlet pressure:
  10/25/50 bar
  145/363/725 psi

★ 1 duobloc
★ 3 inlets/1 outlet
★ Inlet/outlet pressure gauges
★ 1 safety relief valve
★ 1 purge outlet
★ O_2 application compatible (brass only)
★ Regulator with Balanced-Valve Technology

Special requirements on request

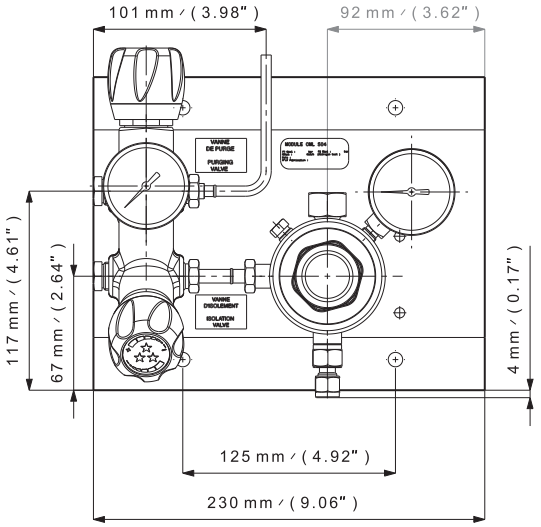
APPLICATIONS

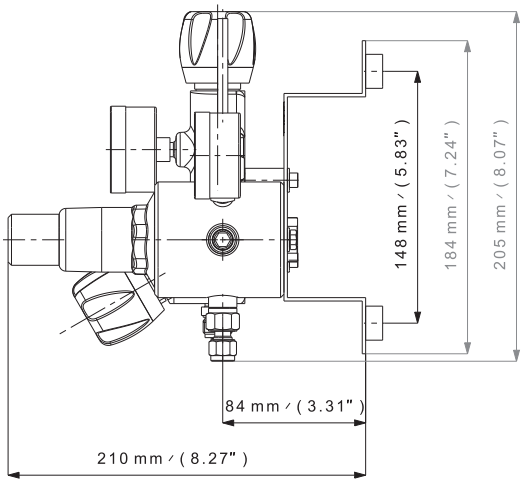
- Ideally suited for pure and corrosive gases for high purity applications dedicated to the supply of gas to analyzers and to the creation of controlled atmosphere in laboratories, control units, and for petrochemical applications where high flows are required.
- Used in combination with a switch over board for the regulation of the emergency source during maintenance on the principal source. This avoids installing some extension and reducing the amount of leaking points.

KEY FEATURES

- Possible to connect 2 gas cylinders and a gas for purging operation (up to 3 cylinders without any extension - without using the purge line).
- Ready to install with all components pre-mounted on a board.
- Best-in-class pressure stability with Balanced-Valve Technology: the effect of inlet pressure fluctuations on outlet pressure are minimized. Balanced-Valve Technology enables the delivery of a very stable outlet pressure and flow even with high flow line regulators.
- Increased regulator life and reduced ownership costs.
- Can be equipped with a collection tube on the safety relief valve and purge outlet.
- Can also be equipped with an outlet shut-off valve.
- The CM 504 can be connected to an alarm box using contact gauges.

3 inlet ports





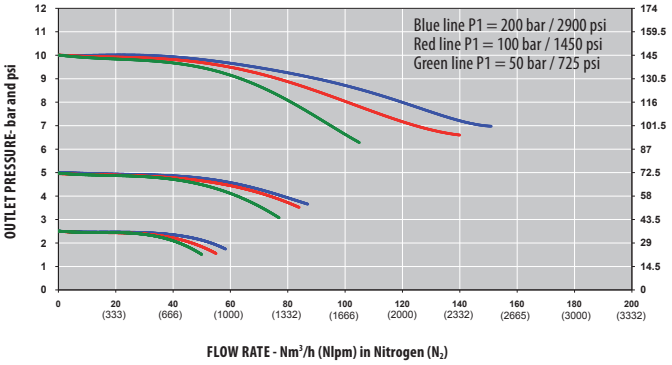
SPECIFICATIONS

Female ports	G ⅜ (inlet/outlet) or ¼ NPT (inlet/outlet)	**Weight**	± 5,4 kg ± 11.8 lbs	**Inlet pressure**	200 bar 2900 psi
Seat seal	PCTFE	**Leak rate**	10^{-8} mbar ℓ/s He	**Outlet pressure**	10/25/50 bar 145/363/725 psi
O-ring	EPDM - standard NBR FPM	**Temperature range**	-20°C to + 60°C -4°F to + 140°F	**Nominal Flow**	50/50/100 Nm^3/h (N_2)
Diaphragm	AISI 304 (chrome plated version) Hastelloy® (stainless steel version)	**Gauges**	High and low pressure (M10 x 1 or ⅛ NPT)	**Oxygen use**	OK for brass with 200 bar inlet pressure

FLOW CURVES

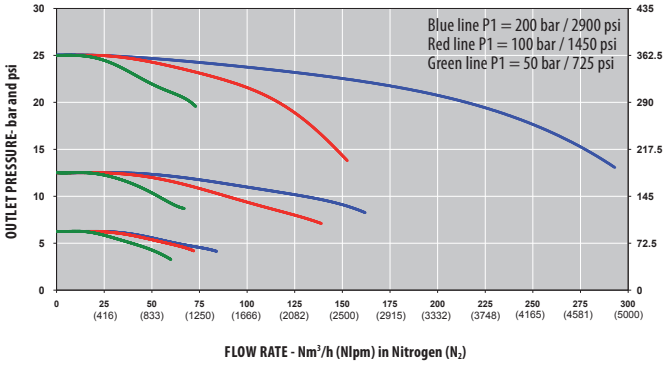
FLOW CURVE CM 504-10 REGULATOR

SET: 10 bar / 145 psi
5 bar / 72.5 psi
2,5 bar / 36.35 psi



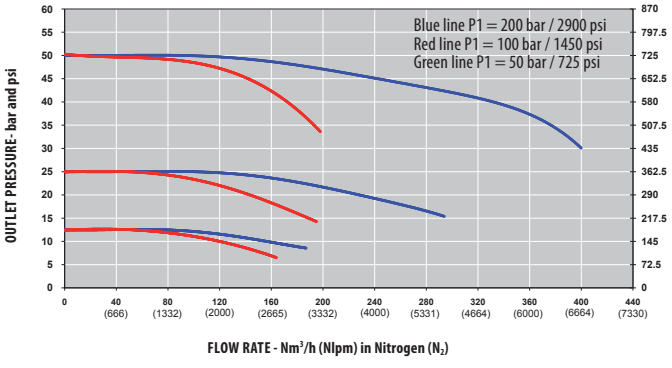
FLOW CURVE CM 504-25 REGULATOR

SET: 25 bar / 362.5 psi
12,5 bar / 181.25 psi
6.25 bar / 90.62 Psi



FLOW CURVE CM 504-50 REGULATOR

SET: 50 Bar / 725 Psi
25 Bar / 362.5 Psi
12,5 Bar / 181.25 Psi



PRODUCT CONFIGURATOR

Body Material			Outlet Pressure		End Connections		O-ring Material	Gauges		Fix or adjustable Outlet Pressure		Outlet Valve		Configuration	
CML		504	10		G		EPDM	1		FX		NV		A	
Chrome Plated Brass	CML		10 bar 145 psi	10	G ⅜ - Female	G	EPDM - standard	with gauges - standard	1	with fixed P2 (standard)	FX	without outlet shut-off valve (standard)	NV	standard configuration	A
Stainless steel	CMI		25 bar 362.5 psi	25	NPT ¼ - Female	N	NBR	with HP inductive contact gauge	2	with adjustable P2 (handwheel)	ADJ	with outlet shut-off valve	V	"mirror" version - duoblock on right side	R
			50 bar 725 psi	50			FPM	with HP sliding contact gauge	3					with connected purge and safety valve	CL
								with LP inductive contact gauge	4					"mirror" with connected purge and S.V.	RCL
								with LP sliding contact gauge	5						
								with HP & LP sliding contact gauges	6						