Instrumentation and Process Control Solutions for the Oil & Gas Industry

ControlAir's Precision Pressure Regulators, Filter Regulators, Volume Boosters, Air Relays and I/P Transducers help ensure precise pressure adjustment for instrumentation and process control in the oil and gas markets. These demanding applications require accurate and repeatable pressure regulation, sometimes under extreme conditions. ControlAir's family of Stainless Steel and NACE units provide longer life in offshore and other harsh environments.

Pneumatic and Electro-Pneumatic Regulators are used in the following applications

Process Control Valves
Control of valves with Precision Regulators, I/P Pressure Transducers and Volume Boosters

Separator Skids
Water and oil separators

Rotational Speed Controls on Compressors and Turbines
I/P Transducers are used to control throttle speed

Emergency Shutdown System Controls
Filter Regulators and Volume Boosters for quick and reliable valve actuation

Flare and Burner Systems
High Flow Regulators used for gas vent control

Wellhead Instrumentation and Analysis
Precision Regulators and low bleed I/P Transducers for sensitive instrument control

Tank Blanketing Precision Regulators for controling tank pressures

Natural Gas Compressors
Regulators for fuel systems on compressor skids

ControlAir Inc.

ControlAir







	TYPE 310/335 Filter Regulators	TYPE 350/360/370 Filter Regulator/Regulator/Filter	TYPE 380/390SS Filter Regulator / Regulator	TYPE 3500/3600 High Pressure Regulators	TYPE 6000 Volume Booster	TYPE 6100 Volume Booster	TYPE 6500/6600 Large Flow Volume Booster
Features	• Corrosion Resistant Construction • NACE MR0175 Compliant • Depth Filter • Two Outlet Connections • Stable Output and Repeatability • Low Droop At High Flow Levels • Tight Shutoff • Low Air Consumption • Tapped Exhaust	• 316 Stainless Steel (Type 350/360/370) • NACE MR0175 Compliant • Autodrain Option (Type 350 & 370) • 1/4" & 1/2" NPT Ports • Low Temp Option • High Flow Capacity • Tapped Exhaust Port • Minimal Air Consumption	• 316L Stainless Steel Construction • High Flow Capacity • 3/4" or 1" NPT Porting • 2 Gauge Ports • Automatic Drain Option • Soft Seat Self Relieving Design	• 316 Stainless Steel (Type 3600) • NACE MR0175 Compliant (Type 3600) • Choice of Three Output Pressures • Choice of Three Output Ports • Socket Head or Tee Handle • Replacement Valve Seat • Non-Relieving Design (T3600) • High Maximum Inlet Pressure	• Fast Response • Adjustable Bypass Valve • Soft Seat Sealing • Corrosion and Wear Resistant • Choice of Porting	• 1/4", 1/2" or 3/4" NPT Porting • Integral Adjustable Bypass Valve • High Flow Capacity • Soft Valve Seat Design • High Temperature Operation • 2 High Output Exhaust Vents • 2 1/4" NPT Gauge Ports • Balanced Supply Valve	• 3/4" or 1" NPT Porting • Integral Adjustable Bypass Valve • High Flow Capacity • Soft Valve Seat • High Temp. Operation • Tapped High Output Exhaust Port • 2 Gauge Ports-Optional • Low Temp. Option • IEC 65108 SIL 3 Compliant
NACE Compliant	**Type 310 & Type 335**	**Type 350, 360 & 370**		**Type 3600**			
Material (Body)	Diecast Aluminum with Baked Epoxy Finish	316L Stainless Steel	316L Stainless Steel	**Type 3500:** Brass **Type 3600:** 316 Stainless Steel	**Type 6000-EA:** Aluminum **Type 6000-ES:** Stainless Steel	Aluminum	**Type 6500:** Aluminum **Type 6600:** 316 Stainless Steel
Output Ranges	0-30 psig (0-2.1 bar) 0-60 psig (0-4.1 bar) 0-100 psig (0-6.9 bar)	**Type 350 & Type 360:** 0-30 psig (0-2.1 bar) 0-60 psig (0-4.1 bar) 0-100 psig (0-6.9 bar) 0-150 psig (0-10.3 bar) **Type 370**: N/A	0-30 psig (0-2.1 bar) 0-60 psig (0-4.1 bar) 0-100 psig (0-6.9 bar) 0-150 psig (0-10.3 bar) 0-200 psig (0-13.8 bar)	0-125 psig (0-8.6 bar) 0-150 psig (0-10.3 bar) 0-225 psig (0-15.5 bar)	0-150 psig (0-10.3 bar)	0-150 psig (0-10.3 bar)	0-150 psig (0-15 bar)
Maximum Supply Pressure	250 psig (17.2 bar)	**Type 350:** 290 psig (20.0 bar) **Autodrain:** 150 psig (10.34 bar) **Type 360:** 290 psig (20.0 bar) **Type 370:** 150 psig (10.34 bar) **Autodrain:** 150 psig (10.34 bar)	290 psig (20.0 bar) **Autodrain:** 150 psig (10.0 bar)	6000 psig (413 bar)	150 psig (10.3 bar)	250 psig (17.0 bar)	250 psig (17.0 bar)
Maximum Flow Coefficients (Cv)	**Type 335:** 0.5 at 150 psig supply and 80 psig setpoint	1/4" = 1.2 1/2" = 3.3	**Type 380:** 3/4": 9.0; 1": 10.0 **Type 390:** 3/4": 11.0; 1": 11.0	0.13	1/2" Forward: 6.6 Exhaust: 5.8 3/4" Forward: 6.8 Exhaust: 5.8	Port / Forward / Exhaust 3/4" 5.0 3.5 1/2" 4.5 3.5 1/4" 2.0 2.5	3/4" Forward: 8.0 Exhaust: 8.0 1" Forward: 9.0 Exhaust: 8.0
Air Consumption	Less than 5 scfh (2.5 Nl/min)	4 scfh (2 Nl/min) maximum	4 scfh (2 Nl/min) maximum				
Flow Capacity	**Type 310:** 20 scfm at 100 psig with 20 psig output		**Type 380:** 3/4" &1": 425 scfm (12,027 Nl/min) **Type 390:** 3/4": 450 scfm (12,735 Nl/min); 1": 500 scfm (14,150 Nl/min)		300 scfm (8,490 Nl/min)	250 scfm (7,075 Nl/min)	3/4": 375 scfm (10,613 Nl/min) 1": 425 scfm (12,028 Nl/min)
Operating Temperatures	-20° to 180°F (-29° to 82°C)	-20° to 185°F (-29° to 85°C) **Autodrain option (Type 350 & Type 370 only):** 32° to 185°F (0° to 85°C) **Low temp option:** -61° to 194°F (-52° to 90°C)	-40° to 200°F (-40° to 93°C) **Autodrain:** 32° to 200° (0° to 93°C)	**Type 3500:** -70° to 225°F (-57° to 107°C) **Type 3600:** -40° to 225°F (-40° to 107°C)	**Standard:** -40° to 160°F (-40° to 71°C) **EPDM option:** -40° to 230°F (-40° to 110°C) **Silicone option:** -60° to 230°F (-51° to 110°C)	-40˚ to 200˚F (-40˚ to 93˚C)	-40˚ to 200˚F (-40˚ to 93˚C) **Low temperature option:** -62˚ to 194˚F (-52˚ to 90˚C)
Filter	40 micron (5 micron option)	**Type 350/360:** 25 micron; optional 5 micron; **Type 370:** N/A	**Type 380:** 40 micron (5 micron option) **Type 390:** N/A				
Porting Inlet/Outlet: Gauge(s): Exhaust:	 1/4" NPT 1/4" NPT 1/4" NPT	**Type 350/360** / **Type 370** 1/4" NPT or 1/2" NPT / 1/4" NPT or 1/2" NPT 1/4" NPT / 1/4" NPT 1/8" NPT / —	3/4" NPT or 1" NPT (2) 1/4" NPT 1/8" NPT	1/4" NPT	1/2" or 3/4" NPT 1/4" NPT 1/2" or 3/4" NPT **Signal port:** 1/4" NPT	1/4" NPT, 1/2" NPT or 3/4" NPT 1/4" NPT ø7/16" or 1/4" NPT option	3/4" or 1" NPT (2) 1/4" NPT 3/4" NPT **Signal port:** 1/4" NPT **Feedback port option:** 1/4" NPT
Weight	**Type 310:** 1.6 lb. (0.72 kg) **Type 335:** 1.2 lb. (0.54 kg)	**Type 350:** 1/4" NPT: 2.2 lbs. (1.0 kg) 1/2" NPT: 2.8 lbs. (1.3 kg) **Type 360:** 1/4" NPT: 2.0 lbs. (0.9 kg) 1/2" NPT: 2.6 lbs. (1.2 kg) **Type 370:** 1/4" NPT: 2.1 lbs. (0.95 kg) 1/2" NPT: 2.5 lbs. (1.14 kg)	**Type 380:** 16.6 lbs (7.5 kg) **Type 390:** 14.5 lbs (6.6 kg)	3.25 lbs (1.5 kg)	**Aluminum:** 5 lbs. (2.3 kg) **Stainless Steel:** 11.7 lbs. (5.3 kg)	2.5 lbs (1.13 kg)	**Type 6500:** 6.5 lbs. (2.95 kg) **Type 6600:** 15 lbs. (6.80 kg)
Operating Media	Air, inert gas, sweet (natural) and sour gases	Air, inert gas, sweet (natural) and sour gases	Air, inert gas, sweet (natural gas)	**Type 3500:** Air, inert gas, noncorrosive gases **Type 3600:** Air, inert gas, sweet (natural) and sour gases	Air, inert gas, sweet (natural gas)	Air, inert gas, sweet (natural gas)	Air, inert gas, sweet (natural gas)

	TYPE 595 I/P Transducer	TYPE 900 I/P Transducer	TYPE 950 I/P Transducer	TYPE 2000 Valve Positioner Pneumatic/Electro-Pneumatic
Features	• Compact Size • Vibration & Position Insensitive • Low temperature Option • Worldwide Agency Approvals	• Electronic Closed-loop Feedback • Compact Size • Easy Wiring • Input/Output Ports on Front and Back • Intrinsic Safety Approvals • Field selectable outputs (optional) • Field reversable, RFI/EMI protection • Zero-based ranges available	• Optional Field-Selectable Outputs • Approved for Natural Gas • RFI/EMI Protected • Compact Size • Low Air / Gas Consumption	• Modular Construction • Rotary & Linear, Single & Double Acting • Optional 4-20 mA Feedback on Mechanical Switches • External Zero Adjustment • Compact Design and Low Weight • Vibration/Position/Shock Insensitive • Stainless Steel Spool Valve
Approvals	FM, CSA, ATEX, EAC	FM, CSA, ATEX, EAC	FM, CSA, ATEX, EAC	FM, CSA, ATEX
Material (Body)	Chromate-treated aluminum w/epoxy paint NEMA 4X (IP65)	Chromate-treated aluminum w/epoxy paint NEMA 4X (IP65)	Chromate-treated aluminum w/epoxy paint NEMA 4X (IP66)	NEMA 4X (IP66) aluminum w/polyester epoxy finish
Inputs	4-20 mA	**Standard Range** 4-20 mA, 0-5 Vdc 0-10 Vdc, 1-5 Vdc 1-9 Vdc **High Output Range** 4-20 mA, 0-5 Vdc 0-10 Vdc, 1-5 Vdc 1-9 Vdc	4-20 mA	**Pneumatic** 3-15 psi (0.2-1.0 bar) **Electro-Pneumatic** 4-20 mA (Ri<250 ohms)
Output Ranges psig (bar)	3-15 (0.2-1.0) 3-27 (0.2-1.9) 6-30 (0.4-2.1)	1-17 (0.1-1.2) 3-15 (0.2-1.0) 3-27 (0.2-1.9) 6-30 (0.4-2.1) 0-15 (0-1) 0-30 (0-2.1) 2-60 (0.14-4.1) 2-100 (0.14-6.9) 0-60 (0-4.1) 0-100 (0-6.9)	3-15 (0.2-1.0) 3-27 (0.2-1.9) 6-30 (0.4-2.1)	
Maximum Supply Pressure Note: Supply pressure must be a minimum of 5 psig (0.3 bar) above maximum output	3-15: 22 psig (1.5 bar) max 3-27, 6-30: 42 psig (2.8 bar) max	22-60 (1.5-4.1) 20-100 (1.4-6.9) 32-100 (2.2-6.9) 35-100 (2.4-6.9) 25-65 (1.7-4.5) 40-70 (2.8-4.8) 65-130 (4.5-9.0) 105-130 (7.2-9.0) 70-80 (4.8-5.5)	100 psig (6.9 bar)	<145 psi (<10 bar) 21.8-145 psi (1.50-10 bar)
Air Consumption Coefficients (Cv)	0.1 scfm (2.82 Nl/min)	1.5 scfh (0.75 Nl/min) at mid range typical 4.5 scfh (2.25 Nl/min) at mid range typical	3.0 scfh (1.5 Nl/min) at mid range	**Pneumatic scfm (Nl/min)** / **Electro-Pneumatic scfm (Nl/min)** @29 psi (2.0 bar): 0.18 (5.09) / 0.2 (5.7) @87 psi (6.0 bar): 0.53 (424.5) / 0.6 (17.0) @145 psi (10 bar): 0.88 (707.5) / 1.0 (28.3)
Operating Temperatures	-40°F to 158°F (-40°C to 70°C) **Low temperature (L) option:** -67ºF to 158ºF (-55ºC to 70ºC)	-40° to 158°F (-40° to 70°C)	-40° to +158°F (-40° to +70°C)	-40˚ to 185˚F (-40˚ to 85˚C)
Porting	**Pneumatic:** 1/4" NPT (P & N versions); 1/16" manifold mount (M version) 1/8" NPT Gauge Port (P version) **Electric:** 1/2" NPT or M20-1.5	**Pneumatic:** l/4" NPT/BSP **Electric:** l/2" NPT/BSP	**Pneumatic:** 1/4" NPT **Electric:** 1/2" NPT M20 x 1.5 (ATEX)	1/4" NPT; Gauge Ports 1/8" NPT 1/2" NPT; M20-1.5 (ATEX)
Flow Capacity	2.4 scfm (67.92 Nl/min) max	4.5 scfm (127.35 Nl/min) at 25 psig (1.7 bar) supply (3-15, 3-27, 6-30 psig) 20.0 scfm (566 Nl/min) at 150 psig (10.0 bar) supply (0-120 psig) 12.0 scfm (340 Nl/min) at 100 psig (6.9 bar) supply (3-15, 3-27, 6-30, 2-60 psig)	4.5 scfm (127 Nl/min) at 25 psig (1.7 bar) supply 12.0 scfm (340 Nl/min) at 100 psig (6.9 bar) supply	**scfm** / **Nl/min** @29 psi (2.0 bar) 9.5 / 268.9 @87 psi (6.0 bar) 28.3 / 800.1 @145 psi (10 bar) 47.1 / 1333
Operating Media	Clean, dry, oil-free, instrument air, filtered to 40 micron	Clean, dry, oil-free, instrument air, filtered to 40 micron	Clean, dry, oil-free, instrument air, filtered to 40 micron. Sweet natural gas or methane when purchased with (E) option.	Clean, dry, oil-free instrument air, filtered to 40 micron

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