

Short Form
Catalogue

ControlAir

Precision Pneumatic and Electropneumatic Controls

Current-to-Pressure (I/P) Transducers
Voltage-to-Pressure (E/P) Transducers
Pressure-to-Current (P/I) Transducers
Precision Air Pressure Regulators
Filter Regulators
Volume Boosters
Snap Acting Relays & Bias Relays
Motorized Regulators
Liquid Level Systems
Friction-free Diaphragm Air Cylinders
Custom Engineered Devices



Regulators

Type 100

Multi-stage regulator provides the highest level of regulation accuracy and repeatability available. Output pressure is controlled to within 0.1% of full range.

- ▲ Insensitive to changes in supply pressure and flow
- ▲ Able to hold set pressure over long periods of time
- ▲ High relief capacity, plunger operated, manifold mounted, and low range models are available
- ▲ Compact size



Precision Air Pressure Regulator

Flow Capacity SCFM (NI/min)	14 (420)
Exhaust Capacity SCFM (NI/min)	3 (90)
Sensitivity Inch wc (mm)	0.125 (3.2)
Supply Pressure Max PSIG (BAR)	150 (10)
Approximate Size (inches)	2.0 x 2.06 x 4.26
Approximate Size (mm)	52 x 52 x 108

Range PSIG (BAR)	Port Size NPT/BSP	Model# NPT/BSP
2-40 (0.14-2.7)	1/8	100-AA/100-AAU
	1/4	100-BA/100-BAU
	3/8	100-CA/100-CAU
2-60 (0.14-4)	1/8	100-AB/100-ABU
	1/4	100-BB/100-BBU
	3/8	100CB/100-CBU
2-120 (0.14-8)	1/8	100-AC/100-ACU
	1/4	100-BC/100-BCU
	3/8	100-CC/100-CCU

Type 350/360/370SS

Designed to provide instrument quality air in corrosive environments. Will also provide precise pressure control of sour gases.

- ▲ Low temperature option
- ▲ Autodrain option
- ▲ 316 stainless steel internal and external
- ▲ Viton® seals
- ▲ NACE approved
- ▲ Large flow capacity
- ▲ Low air consumption
- ▲ Tapped exhaust



Stainless Steel Filter Regulator, Regulator & Filter

Maximum Flow Capacity SCFM (NI/min)	
1/4" NPT	20 (600)
1/2" NPT	160 (4,800)
Exhaust Capacity SCFM (NI/min)	
1.0 (30)	
Sensitivity Inch wc (mm)	
1.0 (25.0)	
Supply Pressure Max PSIG (BAR)	
290 (20)	
Type 350SS Filter Regulator	
1/4" NPT Approx. Size (inches)	2.13 x 2.13 x 8.11
1/4" NPT Approx. Size (mm)	54.1 x 54.1 x 206
1/2" NPT Approx. Size (inches)	2.13 x 2.72 x 8.52
1/2" NPT Approx. Size (mm)	54.1 x 69.1 x 216.4

Range PSIG (BAR)	Port Size NPT	Model# Filter Regulator/Regulator
0-30 (0-2)	1/4	350-BA/360-BA
	1/2	350-DA/360-DA
0-60 (0-4)	1/4	350-BB/360-BB
	1/2	350-DB/360-DB
0-100 (0-7)	1/4	350-BC/360-BC
	1/2	350-DC/360-DC
0-150 (0-10)	1/4	350-BD/360-BD
	1/2	350-DD/360-DD

Type 100M

Designed to provide precise pneumatic control by using an electrical control.



Motorized Precision Air Pressure Regulator

- ▲ Ideal for control from a remote location
- ▲ Regulation accuracy and sensitivity of the Type 100
- ▲ Maintains set output pressure in the event of a power failure
- ▲ Compact size

Type 400

General purpose regulator provides reliable performance under variable operating conditions.

- ▲ Repeatable pressure output
- ▲ Corrosion-resistant construction
- ▲ Low cost makes this unit ideal for high volume OEM applications



General Service Pressure Regulator

Flow Capacity SCFM (NI/min)	20 (600)
Exhaust Capacity SCFM (NI/min)	0.1 (3)
Sensitivity Inch wc (mm)	1.0 (25.0)
Supply Pressure Max PSIG (BAR)	250 (17)
Approximate Size (inches)	
DIA 2.5 H 5.63	
Approximate Size (mm)	
DIA 63 H 143	

Range PSIG (BAR)	Port Size NPT	Model#
0-10 (0-0.7)	1/4	400-BD
0-30 (0-2)	1/4	400-BA
0-60 (0-4)	1/4	400-BB
0-120 (0-8)	1/4	400-BC

Type 300

Designed to provide clean, accurate air pressure to instruments, valves, and other control equipment. Durable materials of construction in combination with an epoxy paint finish provide long lasting corrosion resistance in harsh industrial environments.

- ▲ Provides constant control of pressure under variable flow rates and supply pressures
- ▲ High capacity, long lasting depth filter
- ▲ Epoxy finish is standard
- ▲ Low droop
- ▲ Through body mounting
- ▲ Materials in the Type 310 meet NACE MR-01-75 requirements



Instrument Air Filter & Air Filter Regulator

Flow Capacity SCFM (NI/min)	22 (660)
Exhaust Capacity SCFM (NI/min)	0.1 (3)
Sensitivity Inch wc (mm)	1.0 (25.0)
Supply Pressure Max PSIG (BAR)	250 (17)

Type 300 & Type 310 Filter Regulators

Approximate Size (inches)	3.13 x 3.13 x 7.50
Approximate Size (mm)	80 x 80 x 190

Type 320 Filter	
Approximate Size (inches)	3.13 x 3.13 x 3.96
Approximate Size (mm)	80 x 80 x 100

Range PSIG (BAR)	Port Size NPT	Model#
0-10 (0-0.7)	1/4	300-BD
0-30 (0-2)	1/4	300-BA
0-60 (0-4)	1/4	300-BB
0-120 (0-8)	1/4	300-BC

Type 310 NACE Compliant

Range PSIG (BAR)	Port Size NPT	Model#
0-30 (0-2)	1/4	310-BA
0-60 (0-4)	1/4	310-BB
0-100 (0-7)	1/4	310-BC

Type 3500

General purpose regulator provides reliable performance under variable operating conditions.

- ▲ Repeatable pressure output
- ▲ Corrosion-resistant construction
- ▲ Low cost makes this unit ideal for high volume OEM applications



High Pressure Regulator

Supply Pressure Max PSIG (BAR)	6000 (413)
Temperature Range	-70° to 225°F
Approximate Size (inches)	
DIA 3.35 H 6.26	
Approximate Size (mm)	
DIA 85.1 H 159	

Range PSIG (BAR)	Port Size NPT	Adjustment	Model#
0-125 (0-9)	1/4	socket	3500-BC
0-150 (0-10)	1/4	socket	3500-BD
0-225 (0-16)	1/4	socket	3500-BE
0-125 (0-9)	1/4	Tee Handle	3500-CC
0-150 (0-10)	1/4	Tee Handle	3500-CD
0-225 (0-16)	1/4	Tee Handle	3500-CE

Type 330

Provides clean, accurate air pressure in a durable, compact housing. For long lasting corrosion resistance in harsh industrial environments.

- ▲ Second gauge port option
- ▲ Direct, pipe or bracket mounting
- ▲ Low air consumption
- ▲ Tapped exhaust and panel mount options



Instrument Air Filter Regulator

Flow Capacity SCFM (NI/min)	22 (660)
Exhaust Capacity SCFM (NI/min)	0.1 (3)
Sensitivity Inch wc (mm)	1.0 (25.0)
Supply Pressure Max PSIG (BAR)	250 (17)
Approximate Size (inches)	3.42 x 2.56 x 3.10

Range	Port Size	Gauge Ports	Model #
0-30 (0-2)	1/4	1	330-BAA
0-60 (0-4)	1/4	1	330-BBA
0-120 (0-8)	1/4	1	330-BCA
0-30 (0-2)	1/4	2	330-BAB
0-60 (0-4)	1/4	2	330-BBB
0-120 (0-8)	1/4	2	330-BCB

Type 700

Ideal for applications that require high flow capacity and accurate pressure control.

- ▲ Allows flow capacity up to 80 SCFM
- ▲ Dampening action of aspirator tube provides stability under varying flow conditions
- ▲ Sensitive to minute changes in down stream pressure



Precision High Flow Pressure Regulator

Flow Capacity SCFM (NI/min)	80 (2,400)
Exhaust Capacity SCFM (NI/min)	4 (120)
Sensitivity Inch wc (mm)	0.25 (6.4)
Supply Pressure Max PSIG (BAR)	250 (17)
Approximate Size (inches)	
DIA 3.0 H 6.0	
Approximate Size (mm)	
DIA 76 H 152	

Range PSIG (BAR)	Port Size NPT/BSP	Model# NPT
0-2 (0-0.14)	1/4, 3/8, 1/2	700-BA, 700-CA, 700-DA
0-15 (0-1)	1/4, 3/8, 1/2	700-BC, 700-CC, 700-DC
0-30 (0-2)	1/4, 3/8, 1/2	700-BD, 700-CD, 700-DD
0-60 (0-4)	1/4, 3/8, 1/2	700-BE, 700-CE, 700-DE
0-150 (0-10)	1/4, 3/8, 1/2	700-BF, 700-CF, 700-DF

For BSP porting add "U" to end of Model#.

Type 700BP

Provides sensitive protection against over pressurization in the downstream portion of a pneumatic system. Operates as a high precision relief valve with an adjustable set point.

- ▲ Provides quick response to controlled system pressure variation
- ▲ Flow capacity up to 50 SCFM
- ▲ Compensating flow control from venturi tube design



Precision Back Pressure Regulator

Flow Capacity SCFM (NL/min)	50 (1,500)
Sensitivity Inch wc (mm)	0.25 (6.4)
Supply Pressure Max PSIG (BAR)	250 (17)
Approximate Size (inches)	DIA 3.0 H 6.0
Approximate Size (mm)	DIA 76 H 152

Range PSIG (BAR)	Port Size NPT/BSP	Model# NPT
0-2 (0-0.14)	1/4, 3/8, 1/2	710-BA, 710-CA, 710-DA
0-15 (0-1)	1/4, 3/8, 1/2	710-BC, 710-CC, 710-DC
0-30 (0-2)	1/4, 3/8, 1/2	710-BD, 710-CD, 710-DD
0-60 (0-4)	1/4, 3/8, 1/2	710-BE, 710-CE, 710-DE
0-150 (0-10)	1/4, 3/8, 1/2	710-BF, 710-CF, 710-DF

For BSP porting add "U" to end of Model#.



Type 800

Compact unit that supplies precise air pressure regulation for applications where space is limited.

- ▲ Flow capacity up to 5 SCFM
- ▲ Stable output
- ▲ Repeatable
- ▲ Self relieving
- ▲ Lightweight construction
- ▲ Viton® elastomers
- ▲ Available with threaded post / manifold mounting



Subminiature Precision Air Pressure Regulator

Flow Capacity SCFM (NL/min)	5 (150)
Exhaust Capacity SCFM (NL/min)	0.4 (12)
Supply Pressure Max PSIG (BAR)	250 (17)
Approximate Size (inches)	DIA 1.0 H 3.4
Approximate Size (mm)	DIA 24.5 H 86.4

Range PSIG (BAR)	Port Size		
	1/16 NPT	10-32	M5
0-5 (0-0.4)	800-AA	800-CA	800-BA
0-15 (0-1)	800-AB	800-CB	800-BB
0-30 (0-2)	800-AC	800-CC	800-BC
0-60 (0-4)	800-AD	800-CD	800-BD
0-100 (0-7)	800-AE	800-CE	800-BE



Type 850/860

Air/Water regulator provides stable output pressure in a small, economical package.

- ▲ Relieving and non-relieving models
- ▲ Non-rising adjustment knob with locking capability
- ▲ Lightweight construction
- ▲ OEM friendly cast



Low Cost Miniature Air/Water Pressure Regulator

Flow Capacity SCFM (NL/min) [gal/min]	24 (720) [2.4]
T850 Exhaust Capacity SCFM (NL/min)	.5 (15)
T850 Supply Pressure Max PSIG (BAR)	250 (17)
T860 Supply Pressure Max PSIG (BAR)	150 (10)
Approximate Size (inches)	1.5 x 1.63 x 2.80
Approximate Size (mm)	38.1 x 41.4 x 71.1

Range PSIG (BAR)	Port Size NPT/BSP	Air Model# NPT/BSP	Water Model# NPT/BSP
0-5 (0-0.4)	1/8	850-AE/850-AEU	860-AEN/860-AENU
	1/4	850-BE/850-BEU	860-BEN/860-BENU
0-15 (0-1)	1/8	850-AA/850-AAU	860-AAN/860-AANU
	1/4	850-BA/850-BAU	860-BAN/860-BANU
0-30 (0-2)	1/8	850-AB/850-ABU	860-ABN/860-ABNU
	1/4	850-BB/850-BBU	860-BBN/860-BBNU
0-60 (0-4)	1/8	850-AC/850-ACU	860-ACN/860-ACNU
	1/4	850-BC/850-BCU	860-BCN/860-BCNU
0-100 (0-7)	1/8	850-AD/850-ADU	860-ADN/860-ADNU
	1/4	850-BD/850-BDU	860-BDN/860-BDNU

Type 90

Compact, lightweight unit provides precise pressure regulation for space-limited applications. A force balanced pilot control maintains output pressure to within 0.05 psig (3.44 millibar) with minimal drift over time.

- ▲ High resolution adjustment of set pressure
- ▲ Will fit into tight space requirements
- ▲ Light weight die cast aluminum construction
- ▲ Two gauge ports allow flexible piping



Subminiature Precision Air Pressure Regulator

Flow capacity SCFM (NL/min)	14 (420)
Exhaust Capacity SCFM (NL/min)	7 (210)
Sensitivity Inch wc (mm)	.25 (6.4)
Supply Pressure Max PSIG (BAR)	150 (10)
Approximate Size (inches)	1.38x1.38x3.88
Approximate Size (mm)	35.1x35.1x98.5

Range PSIG (BAR)	Port Size NPT/BSP	Model# NPT/BSP
0.70-30 (0.05-2)	1/8"	90-AA,90-UA
1.4-60 (0.1-4)	1/8"	90-AB,90-UB
1.4-120 (0.1-8)	1/8"	90-AC,90-UC



Type 500X

This electronic pressure regulator converts a current or voltage input signal to a linearly proportional pneumatic output pressure.

- ▲ Output pressure from 3-15 psig to 3-120 psig
- ▲ NEMA 4X (IP65) Enclosure (optional)
- ▲ Integral volume booster
- ▲ Agency approvals
- ▲ Field reversible
- ▲ Easy span and zero adjustment



Also Available:

Type 500X High Pressure Range
Flow Capacity SCFM (NL/min) 20 (600)
Terminal Based Linearity (% of span) ±1.5
Supply Pressure Max PSIG (BAR) 150 (10)

Input Signal	Output Range PSI (BAR)	Model# NPT/BSP
4-20 mA	2-60 (0.14-4)	500-AG/500-AGU
4-20 mA	3-120 (0.2-8)	500-AH/500-AHU
0-60 mA	2-120 (0.14-8)	500-BF/500-BFU
0-5 V	2-60 (0.14-4)	500-CF/500-CFU
0-10 V	3-120 (0.2-8)	500-EH/500-EHU

Transducer (I/P, E/P)

Flow Capacity SCFM (NL/min)	12.0 (360)
Terminal Based Linearity (% of span)	±0.75
Repeatability (% of span)	<0.5
Supply Pressure Max PSIG (BAR)	100 (7)
Port Size (Pneumatic)	1/4 NPT, 1/4 BSP
Port Size (Electric)	1/2 NPT
Approximate Size (inches)	2.18 x 2.18 x 4.24
Approximate Size (mm)	55.4 x 55.4 x 107.7

Input Signal	Output Range PSI (BAR)	Model# NPT/BSP
4-20 mA	3-15 (0.2-1)	500-AC/500-ACU
4-20 mA	3-27 (0.2-1.8)	500-AD/500-ADU
4-20 mA	6-30 (0.4-2)	500-AE/500-AEU
4-20 mA	1-17 (0.07-1.2)	500-AF/500-AFU
10-50 mA	3-15 (0.2-1)	500-BC/500-BCU
10-50 mA	6-30 (0.2-1.8)	500-BD/500-BDU
10-50 mA	3-27 (0.2-1.8)	500-BE/500-BEU
0-5 V	3-15 (0.2-1)	500-CC/500-CCU
0-5 V	3-27 (0.2-1.8)	500-CD/500-CDU
0-5 V	6-30 (0.4-2)	500-CE/500-CEU
1-9 V	3-15 (0.2-1)	500-DC/500-DCU
1-9 V	3-27 (0.2-1.8)	500-DD/500-DDU
1-9 V	6-30 (0.4-2)	500-DE/500-DEU



Type 550X

This electronic regulator provides accurate and economic control for proportional pressure applications.

- ▲ Compact size, accessible porting and easy adjustments for space constrained applications
- ▲ DIN rail, manifold, pipe, wall or panel mounting available
- ▲ NEMA 4X / IP65 housing
- ▲ DIN 43650, terminal block or conduit electrical connections
- ▲ Zero based and high pressure versions available



Transducer (I/P, E/P)

Flow Capacity SCFM (NL/min)	12.0 (360)
Linearity (Independent) % of span	≤±0.5
Repeatability % of span	<0.5
Supply Pressure Max PSIG (BAR)	100 (7)
Port Size (Pneumatic)	1/4 NPT, 1/4 BSP
Approximate Size (inches)	1.5 x 2.2 x 3.7
Approximate Size (mm)	38.1 x 55.4 x 93.7
Input Signal	4-20mA, 0-10 VDC
Output Ranges PSI (BAR)	3-15 (0.2-1), 3-27 (0.2-1.8), 6-30 (0.4-2), 2-60 (0.14-4), 3-120 (0.2-8)

Also Available:

Type 550X Zero Based Range
Max. Flow Capacity SCFM (NL/min) 20 (600)
Linearity (Independent) % of span <±1.0
Repeatability % of span <1.0
Supply Pressure Max PSIG (BAR) 150 (10)
Port Size (Pneumatic) 1/4 NPT
Approximate Size (inches) 1.5 x 2.2 x 5.1
Approximate Size (mm) 38.1 x 55.4 x 130
Input Signals 4-20 mA, 0-10 VDC
Output Ranges PSI (BAR) 0-30 (0-2), 0-60 (0-4), 0-120 (0-8)



Type 5500

Multi-station Digital to Pneumatic Pressure Regulator

This multi-station manifold uses a common air supply to provide electronic proportional control of output pressure through the use of a DeviceNet™ or Profibus™ communication network.

- ▲ 4, 6, or 8 station air pressure control from one fieldbus node
- ▲ Easy commissioning and reduced system wiring
- ▲ Individual shut-off valve for each station
- ▲ Optional diagnostic feedback of output pressure
- ▲ Common air supply simplifies piping
- ▲ Compact design ideal for high-density mounting



Type 590X

I/P transducer uses open loop control and a low mass magnet to produce accurate pressure control at an economical cost. Position insensitive and impervious to RFI/EMI interference.

- ▲ Vibration and position insensitive
- ▲ Din rail and manifold mounting
- ▲ Manifold or 1/8" NPT porting available
- ▲ Wide operating temperature limits
- ▲ Worldwide safety approvals



Transducer (I/P)

Terminal Based Linearity (% of span)	±0.5
Supply Pressure Max PSIG (BAR)	
Manifold (M)	150 (10.0)
1/8" NPT (P)	3-15: 22 (1.5) 3-27, 6-30: 42 (2.8)
Approximate Size (inches)	3.3 x 1.4 x 2.0
Approximate Size (mm)	84.9 x 36.1 x 53.1

Input Signal	Output Range PSI (BAR)	Connection	Model#
4-20 mA	3-15 (0.2-1)	Manifold	590-ACM
4-20 mA	3-27 (0.2-1.8)	Manifold	590-ADM
4-20 mA	6-30 (0.4-2)	Manifold	590-AEM
4-20 mA	3-15 (0.2-1)	1/8" NPT	590-ACP
4-20 mA	3-27 (0.2-1.8)	1/8" NPT	590-ADP
4-20 mA	6-30 (0.4-2)	1/8" NPT	590-AEP



Type 595XP

Converts a 4–20mA electrical current signal to a proportionally linear pneumatic output utilizing open loop control to provide a high level of accuracy and repeatability. Available with an integral volume booster or as a low-flow signal converter.

- ▲ Compact design
- ▲ Worldwide safety approvals
- ▲ Vibration and position insensitive
- ▲ Low power consumption



Explosion-Proof Transducer (I/P)

Flow Capacity SCFM (NI/min)	2.4 (72)
Terminal Based Linearity (% of span)	±0.5
Repeatability (% of span)	<0.3
Supply Pressure Max PSIG (BAR)	42 (2.8)
Port Size (Pneumatic)	1/4 NPT
Port Size (Electric)	1/2 NPT
Approximate Size (inches)	DIA 2.90 H 5.16
Approximate Size (mm)	DIA 73.7 H 131.0

Input Signal	Output Range PSI (BAR)	Model#
4-20 mA	3-15 (0.2-1)	595-AC
4-20 mA	3-27 (0.2-1.8)	595-AD
4-20 mA	6-30 (0.4-2)	595-AC



Type 900X

Internal feedback system provides accurate conversion of a variable electrical signal to a linearly proportional pneumatic output.

- ▲ Unit self-corrects to maintain precise control of output pressure
- ▲ Shock, vibration and position insensitive
- ▲ High accuracy
- ▲ Noninteractive zero and span
- ▲ NEMA-4X(IP65) Enclosure
- ▲ Supply pressures up to 130 PSIG
- ▲ Built-in volume booster
- ▲ Wall, panel, pipe, DIN rail (optional) or manifold mounting
- ▲ Direct / reverse acting, full / split range



Transducer (I/P, E/P)

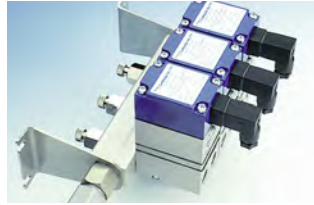
Flow Capacity SCFM (NI/min)	12.0 (360)
Terminal Based Linearity (% of span)	±0.10
Repeatability (% of span)	<0.10
Supply Pressure Max PSIG (BAR)	100 (7)
Port Size (Pneumatic)	1/4 NPT, 1/4 BSP
Port Size (Electric)	1/2 NPT
Approximate Size (inches)	1.5 x 2.2 x 3.7
Approximate Size (mm)	38.1 x 55.9 x 93.7

Input Signal	Output Range PSI (BAR)	Model# NPT/BSP
4-20 mA	3-15 (0.2-1)	900-ACA/900-ACAU
4-20 mA	3-27 (0.2-1.8)	900-ADA/900-ADAU
4-20 mA	6-30 (0.4-2)	900-AEA/900-AEAU
4-20 mA	2-60 (0.14-4)	900-AGA/900-AGAU
4-20 mA	2-100 (0.14-7)	900-AHA/900-AHAU
0-10 V	3-15 (0.2-1)	900-ECA/900-ECAU
0-10 V	3-27 (0.2-1.8)	900-EDA/900-EDAU
0-10 V	2-60 (0.14-4)	900-EGA/900-EGAU
0-10 V	2-100 (0.14-7)	900-EHA/900-EHAU

Now Available: Zero Based Outputs 0-15, 0-30 & 0-60 psi



Type 925



Multi-Function Supply Manifold

Provides a common supply port for the Type 550 or Type 900X I/P, E/P. Individual shut-offs allow in use service.

- ▲ One supply line for multiple outlets
- ▲ Patented individual shut-off valve
- ▲ DIN rail mountable
- ▲ Easy set-up
- ▲ Adaptable to provide common output for solenoid valves

Type 950XP

Compact I/P transducer in an explosion-proof housing delivers reliable performance in hazardous areas. Internal electronic feedback system maintains accurate control of output pressure.

- ▲ Explosion-proof NEMA-4X(IP65) enclosure.
- ▲ RFI, EMI protected
- ▲ Shock, vibration and position insensitive.
- ▲ Field-selectable outputs (optional)
- ▲ Highly tolerant of impure air
- ▲ Optional tapped exhaust and conduit seal required for FM/CSA approval when using natural gas (sweet) or methane



Explosion-Proof Transducer (I/P)

Flow Capacity SCFM (NI/min)	12.0 (360)
Terminal Based Linearity (% of span)	±0.10
Repeatability (% of span)	<0.10
Supply Pressure Max PSIG (BAR)	100 (7)
Port Size (Pneumatic)	1/4 NPT
Port Size (Electric)	1/2 NPT
Approximate Size (inches)	DIA 3.50 H 4.60
Approximate Size (mm)	DIA 88.9 H 116.6

Input Signal	Output Range PSI (BAR)	Model#
4-20 mA	3-15 (0.2-1)	950-AC
4-20 mA	3-27 (0.2-1.8)	950-AD
4-20 mA	6-30 (0.4-2)	950-AE
4-20 mA	Field Selectable	950-ACA



NEW! I/PAC

Explosion-proof field mounted I/P transducers offered as an integrated package, preassembled with a filter regulator and pressure gauge. Chosen from different versions of either the Type-950XP or Type-595XP I/P combined with the Type-330 filter regulator. The package is bracketed to mount on a 2" pipe as well as directly onto valve yokes or other devices that utilize 2.25" bolt spacing.



Integrated Process Air Control

- ▲ Seamless replacements for existing automated control valves in the field
- ▲ Convenient bracketing allows direct or 2" pipe mounting
- ▲ Units come preassembled with filter regulator and pressure gauge.
- ▲ Explosion-proof and intrinsically safe approvals from FM, CSA and ATEX

P200/P290M

All solid state circuitry converts standard 3-15, 3-27 or 6-30 psig instrument air into 4-20 or 10-50 mA outputs (4-20 mA only for FM and CSA approval) with uncompromising accuracy and durability. The P200 is FM approved and CSA certified as NEMA 4 (Enc. 4) for all locations and explosion-proof.

- ▲ ±0.15% accuracy
- ▲ Custom inputs up to 30 PSI



Pneumatic-to-Current P/I Transducers

Dahl P200 | Dahl P290

Inputs	3-15 psig (0.2-1 BAR), 3-27 psig (0.2-1.8 BAR), 6-30 psig (0.4-2 BAR) or customized up to 0-30 psig (0-2 BAR)
Outputs	2 wire: 4-20 mA and 10-50 mA with over-current limit 2 wire: 4-20 mA, with over-current limit
Loads (24 VDC)	700 Ω 2-wire: 700 Ω, standard.
Accuracy	± 0.15% of span; ±0.10% of span typical. Includes combined effects of linearity, hysteresis and repeatability errors
Temp. Stability	Span and zero: ± 0.007% of span per °F maximum deviation from 77 °F calibration
Approx. Size (inches)	3.5 x 3.125 .75 x 3.43 x 5.37

Input Signal PSI (BAR)	Output Range	Model#
3-15 (0.2-1)	4-20 mA	P200 + P11
3-27 (0.2-1.8)	4-20 mA	P200 + P12
6-30 (0.4-2)	4-20 mA	P200 + P13
3-15 (0.2-1)	4-20 mA	P290M + P11
3-27 (0.2-1.8)	4-20 mA	P290M + P12
6-30 (0.4-2)	4-20 mA	P290M + P13

Volume Boosters/Air Relays

Type 200

Pilot operated, multi-stage 1:1 relay with positive and negative biasing adjustment capability. It accurately and quickly reproduces a signal pressure with consistent repeatability.

- ▲ Output control to within 0.1% of full range
- ▲ Positive or negative bias up to 30 psig
- ▲ High relief capacity model available
- ▲ Compact unit
- ▲ Available with external bias adjustment (shown)



Precision Air Relay

Flow Capacity SCFM (NI/min)	14 (420)
Exhaust Capacity SCFM (NI/min)	
Standard Relief	2.0 (60)
High Relief Capacity	10 (300)
Sensitivity Inch wc (mm)	0.125 (3.2)
Supply Pressure Max PSIG (BAR)	150 (10)
Output Pressure Range PSIG (BAR)	2-120 (0.14-8)
Approximate Size (inches)	2.06 x 2.06 x 2.88
Approximate Size (mm)	52 x 52 x 73

Port Size NPT/BSP	Max. Output Pressure PSIG (BAR)	Model# NPT/BSP
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Standard Relief		
1/4	2-120 (0.14-8)	200-BC/200-BCU
3/8	2-120 (0.14-8)	200-CC/200-CCU

High Relief Capacity		
1/4	2-120 (0.14-8)	210-BC/210-BCU
3/8	2-120 (0.14-8)	210-CC/210-CCU

Type 250

Valve or damper position is maintained by capturing air pressure inside the diaphragm chamber (or piston cylinder) of the actuator, when the supply pressure falls below the desired set value.

- ▲ Two pressure ranges 15-60 psig (1-4 BAR) or 30-120 psig (2-8 BAR)
- ▲ Manual relief valve
- ▲ Corrosion-resistance construction
- ▲ Aluminum or stainless steel material option
- ▲ No leakage in lock-up position



Lock-up Air Relay

Cut-off Pressure Range PSIG (BAR)	15-60 (1-4)
Supply Pressure Max PSIG (BAR)	125 (8.35)
Temperature Limits:	0° to 160°F (-18° to 71°C)
Port Size NPT	1/4"

Set Point Range PSIG (BAR)	Part Number	Construction
15-60 (1-4)	250-AA	Aluminum
30-120 (2-8)	250-BA	Aluminum
15-60 (1-4)	250-AS	Stainless Steel
30-120 (2-8)	250-BS	Stainless Steel

Type 6000

1-to-1 signal to output relay that, when used with a positioner/actuator, increases speed of control valves.

- ▲ High air volume for rapid actuator stroking
- ▲ Adjustable bypass valve eliminates actuator overshoot or overdamping
- ▲ Soft seal seating for tight shutoff
- ▲ Available in aluminum or 316 stainless steel construction



Volume Booster

Supply & Signal Pressure	150 psig (10 BAR) max
Max Flow Coefficients (Cv)	Supply 3.0 / Exhaust 3.0
Flow Capacity	115 scfm (3,450 NI/min)
Deadband	Under 0.25 psig (0.017 BAR)
Signal to Output Ratio	1:1 ± 5%
Temperature Limits	-40° to 160°F (-40° to 71°C)
Signal Port	1/4" NPT
Supply/Output Port	1/2" or 3/4" NPT

Model #	In/Out Port	Construction
6000-DA	1/2" NPT	Aluminum
6000-EA	3/4" NPT	Aluminum
6000-DS	1/2" NPT	Stainless Steel
6000-ES	3/4" NPT	Stainless Steel

Mite 70/73/74/85

Precise control of air or gas service. Their snap-acting design automatically trips on either an increasing or decreasing signal. Mites are rugged, compact units engineered for high density applications. They are constructed to last and "make decisions" with crisp precision, cycle after cycle.



Snap-acting control relay with manual reset

Pressure Rating	100 psig max
Temperature Limits	-40°F to +180°F
Port Sizes	Tapped for 1/4" NPT with 1/8" internal ports
Materials	Aluminum, plated steel, neoprene, brass and stainless steel

Super Mite 71L/71H

Automatically selects the higher or lower of two pneumatic inputs and passes it downstream while blocking the other.



High pass or low pass pneumatic selecting relay

Pressure Rating	100 psig max
Temperature Limits	-40°F to +180°F
Port Sizes	Tapped for 1/4" NPT with 1/8" internal ports
Materials	Aluminum, plated steel, neoprene, brass and stainless steel

Capable of almost instantaneous selection, and can separate pressure differentials as low as a tenth of a psi.

Type 600

Utilizes a signal pressure to produce an output pressure with high flow capacity. Highly resistant to output variation due to changing flow and supply pressure conditions.

- ▲ Flow capacity to 50 SCFM
- ▲ Available with 1:1, 1:2, 1:3 or 1:6 signal to output ratio
- ▲ High relief capacity
- ▲ Negative bias option available



Volume Booster

Flow Capacity SCFM (NI/min)	50 (1,500)
Exhaust Capacity SCFM (NI/min)	15.0 (450)
Sensitivity Inch wc (mm)	0.25 (6.4)
Supply Pressure Max PSIG (BAR)	250 (17)
Output Pressure Range PSIG (BAR)	0-150 (0-10)
Approximate Size (inches)	DIA 3.0 H 3.5
Approximate Size (mm)	DIA 76 H 85

Port Size NPT/BSP	Signal/Output Ratio	Model# NPT
1/4", 3/8", 1/2"	1:1	600-BA, 600-CA, 600-DA
1/4", 3/8", 1/2"	1:2	600-BB, 600-CB, 600-DB
1/4", 3/8", 1/2"	1:3	600-BC, 600-CC, 600-DC
1/4", 3/8", 1/2"	1:6	600-BD, 600-CD, 600-DD

For BSP porting add "U" to end of Model#

Type 650

Signal-operated regulator provides an output pressure that is the sum of the input signal pressure plus an easily adjustable preset positive bias.

- ▲ Four bias ranges from 0-15 psig to 0-150 psig
- ▲ Flow capacity to 50 SCFM
- ▲ Relief capacity to 15 SCFM



Positive Bias Relay

Flow Capacity SCFM (NI/min)	50 (1,500)
Exhaust Capacity SCFM (NI/min)	15.0 (450)
Sensitivity Inch wc (mm)	0.25 (6.4)
Supply Pressure Max PSIG (BAR)	250 (17)
Output Pressure Range PSIG (BAR)	0-150 (0-10)
Approximate Size (inches)	DIA 3.0 H 3.5
Approximate Size (mm)	DIA 76 H 85

Port Size NPT/BSP	Model# NPT/BSP	Bias Range PSI
1/4	650-BF/650-BFU	0-150*
3/8	650-CF/650-CFU	0-150*

*Consult factory for other bias ranges and ratios.

L100

Bubble Tube Liquid Level System

Fully self-contained bubble-tube level system requires only connections to air or gas supply, dip tube and electrical power source to provide precise level indication.

- ▲ High accuracy and stability
- ▲ Visual purge rate indication
- ▲ Blow-down capability
- ▲ Excellent for hazardous, high-temp., corrosive or waste water



Description	Model#
Basic System	L100
Remote Sensing	L100R
Automatic Blow-Down	L100A
Remote Sensing & Automatic Blow-Down	L100AR

- ▲ NEMA 4X enclosures available

Diaphragm Air Cylinders

A rolling diaphragm provides a low-friction dynamic seal. This design provides virtually frictionless conversion of fluid pressure to linear force.

- ▲ Low hysteresis
- ▲ No blow-by leakage
- ▲ Available with linear ball bearings
- ▲ Standard units are easily modified to meet individual customer requirements



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Distributed by:

Cascadia Instrumentation Inc.
7360 - 137 Street
Surrey BC V3W 1A3
Phone: 778-578-7956
Sales@Cascadia-Instrumentation.com
www.Cascadia-Instrumentation.com

ControlAir Inc.

8 Columbia Drive / Amherst, NH 03031 USA
Website: www.controlair.com
Email: sales@controlair.com
603/886-9400 Fax: 603/889-1844



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