

Type 3510 & 3520

Digital Weatherproof Regulators

Description

The Type 3510 single and 3520 double loop electro-pneumatic servo pressure controllers combine the advantages of reliable solenoid valves and digital control. Available with a local keypad programming option or RS-485 Digital Communications for PLC or PC control. The digital pressure controller is one of the most precise, accurate, and reliable devices available in the industry today, by giving the user the ability to set and extract data directly from the transducer with a PC or automation system. With a forward flow of 1.25 SCFM at 100 PSI, the 3510/3520 can be used alone for many applications or combined with a volume booster for flows in excess of 2,000 SCFM. Many output ranges are available, from 29" Hg vacuum to 600 PSIG. Standard accuracy is $\pm 0.5\%$ FS or better. A four digit display of the output pressure is available with the keypad model.

Applications include: Gripper Control, Welding Operations, Actuator Control, Machinery Automation, Precision Robotics, Tire Production and Testing, Web Tension, Semiconductor Equipment, and Molding and Forming Operations.

Features

- Digital Display
- Serial Interface
- Digital or Analog Inputs
- Analog Monitor Output
- Single Loop and Dual Loop Control
- Forward Flow 1.25 SCFM at 100 PSI
- Weather Proof Housing

Type 3510 and 3520 Ordering Information

5	0	0	P	1	
↑	↑	↑	↑	↑	Loops
1					1 loop
2					2 loops
0					
	S				Digital Interface
	P				Serial RS-485 (RS-232 and USB via converters) Keypad/display programmer
		E			Analog Control Signal
		I			0-10V 4-20mA
			0		Lower Output Pressure
					Lower Limit of Output Pressure (PSIG)
				G	Pressure Units
				A	PSIG
				V	PSIG Absolute
				W	Vacuum
					Inches of Water Column
		001			Upper Output Pressure
		005			1 PSIG
		015			5 PSIG
		030			15 PSIG
		100			30 PSIG
		150			100 PSIG
		300			150 PSIG
		600			300 PSIG
					600 PSIG Upper Limit
			P		Mounting
					Pipe Mount
				0	Supply and Output Ports
				1	1/8 NPT
				2	1/8 BSPT
					1/8 BSPP
				1	
					Options
				00	None
				15	15VDC Supply
				--	External Volume Booster: X2, X3, Z2, Z3, Z4, N3, N4, N6, N8, Q6, Q8, QA, QB, QC, V2, V3: see chart on page 88



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Performance	Full-Scale Accuracy 0.5%	
Electrical Inputs		
Supply Voltage	24VDC (optional 15VDC)	
Stand by Supply Current	80 mA	
Maximum Supply Current	325 mA	
Supply Pressure	Max. Output PSIG (BAR)	Max. Supply PSIG (BAR)
	Up to 5 (.35)	20 (1.4)
	>5 to 15 (.35-1.0)	30 (2.1)
	>15 to 30 (1.0-2.1)	60 (4.1)
	>30 to 100 (2.1-6.9)	165 (11.4)
	>100 to 150 (6.9-10.3)	200 (13.8)
	>150 to 300 (10.3-20.7)	350 (24.1)
	>300 to 600 (20.7-41.4)	650 (44.8)
Outputs		
Atmospheric Pressure Ranges	1, 5, 15, 30, 100, 150, 300, 500, 600 PSIG	
Vacuum Pressure Ranges	30" Hg, 150 PSIA (2.1 bar, 10.3 bar)	
Forward Flow Capacity	1.25 SCFM (425 LPM)	
Exhaust Flow Capacity	1.25 SCFM (198 LPM)	
Analog Setpoint Control	0-5V, 0-10V, 4-20mA	
Digital Setpoint Control	0-100% full scale (installed sensor=100%)	
Digital Communications	Serial RS-485 interface	
Serial Address	Addresses a-z available (except p and q reserved). 'r' default selectable and configurable via Serial or Keypad Display Interface	
Loop Options	Regulate first loop (onboard sensor) or 2nd loop (remote sensor)	
Remote Sensor Feedback	0-10V, 0-5V, 4-20 mA, (Forward and Reverse Acting)	
Analog Output Source	Follow Setpoint, Output Pressure, or Remote Sensor	
Analog Output Range	0-10V, 0-5V	
Environmental		
Operating Temperature	32-141 °F (0-60 °C)	
Media-Wetted Materials	Aluminum, copper alloys, nickel, buna-n, silicon, 316SS	