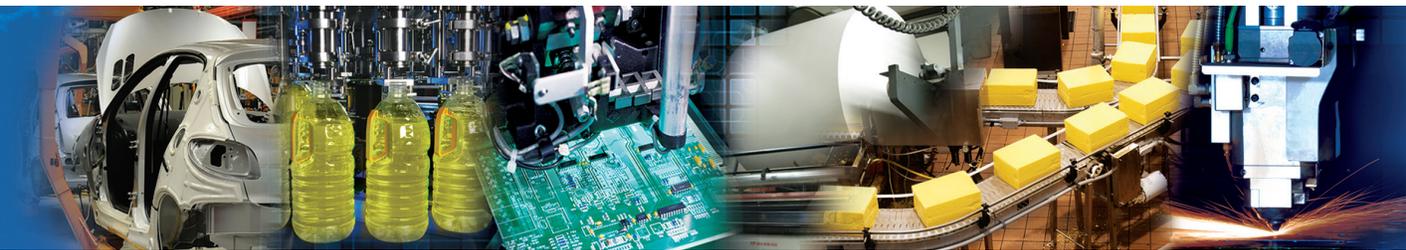


NUMATICS®

E22

Proportional Technology



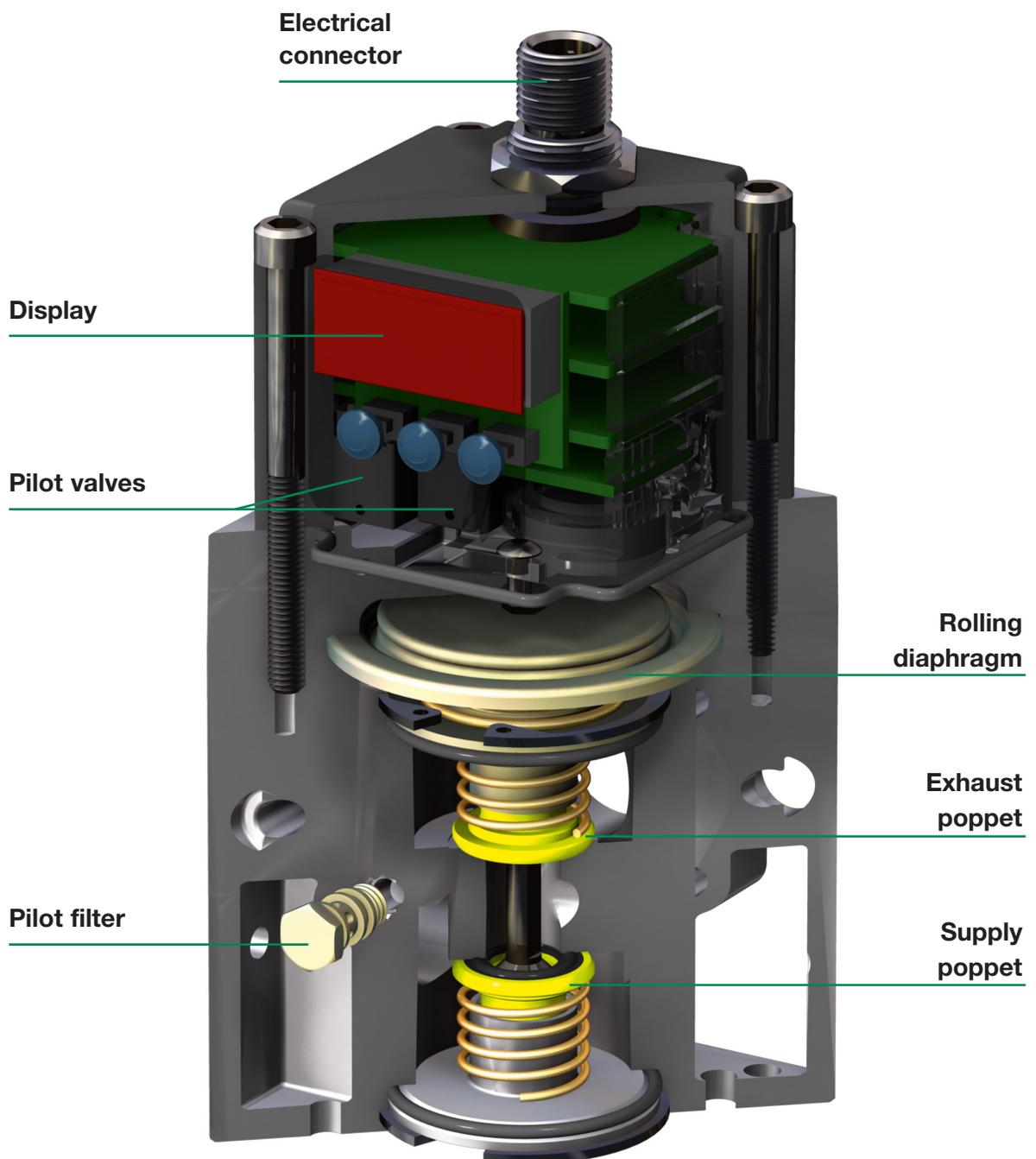
www.numatics.com


EMERSON
Industrial Automation

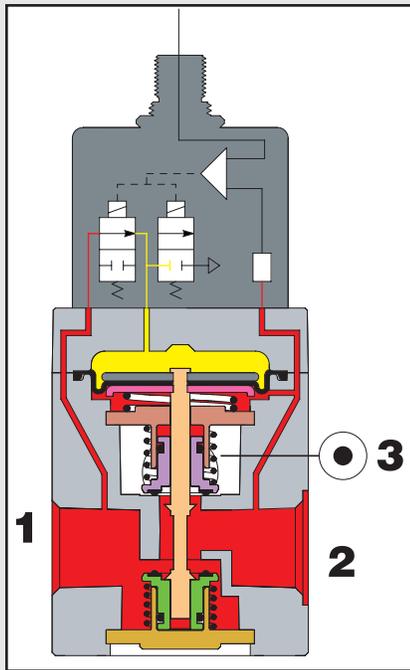
E22 Series

Unlike SENTRONIC valves, E-Series valves operate with pulsed pilot valves which change the pressure in a control chamber. A pressure booster converts the pilot pressure into an outlet pressure with increased flow. The outlet pressure is measured with a pressure sensor and fed into the internal control loop. The setpoint is established over the electrical plug-in connector as a standard signal [0 to 5 (10) V, 4 to 20 mA].

E-Series is particularly suited for pressure control applications with a constant flow, e.g. flow control over nozzles, turbine speed control, glue and lacquer dosing, or pressure control of welding equipment.

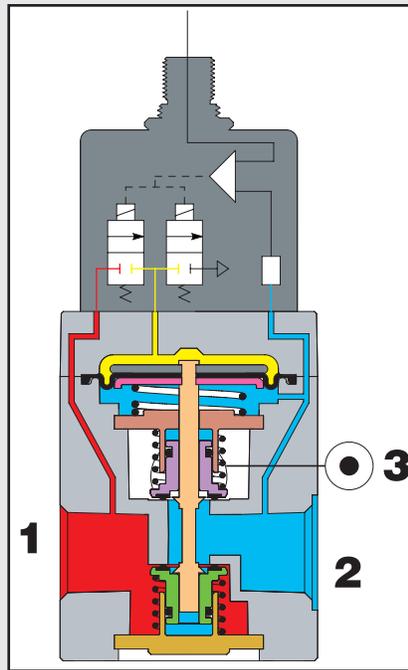


Operating Principle



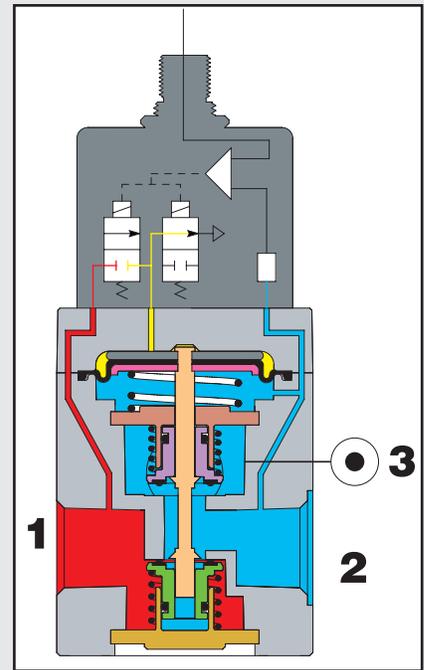
Increasing pressure

The inlet poppet is operated and air flows from port 1 to port 2.



Maintaining pressure

The poppets are in their central position: the flow between port 2 and port 1 or port 3 is blocked.



Exhausting pressure

The exhaust poppet is lifted and air flows from port 2 to port 3.

Specifications

- Fluids: Air, neutral gases
- Pressure range: 0 to 150 psi (10.2 bar)
- Ports: (directly operated) 1/4, 3/8, 1/2, (NPT, GTap or BSPT)
- Construction: Poppet valve
- Actuation: 2 control valves
- Setpoint: 0 – 10 V, 4 – 20 mA, 0 – 5 V
- Options: Internal pressure switch
Analog output (feedback)

Introducing the E22 Series

The E22 Series electronic proportional regulators quickly and accurately adjust output pressure in relation to an electrical control signal. They meet requirements of industrial environments including rapid cycling, quick response, and repeatability, which are found in paint, welding, packaging, textile, medical, and many other process applications.

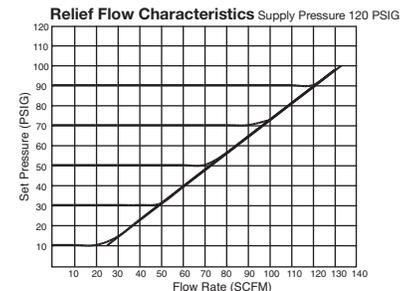
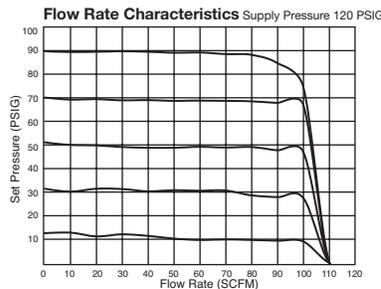
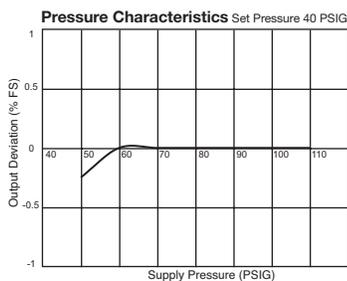
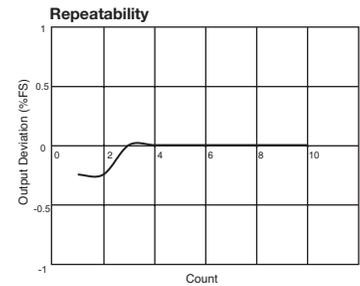
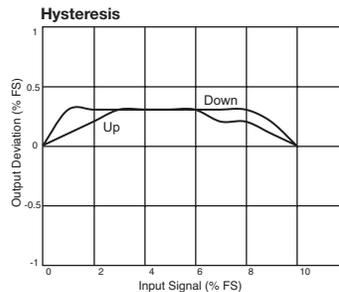
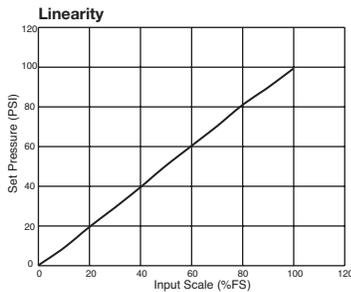
The electrical control signal can be either analog or digital. The analog unit controls any pressure setting directly proportional to the command signal of 4-20mA, 0-10VDC, or 0-5VDC. The optional digital unit uses a 2 bit binary signal to control four user defined pressures eliminating the need for an analog I/O card.



E22 Series Features:

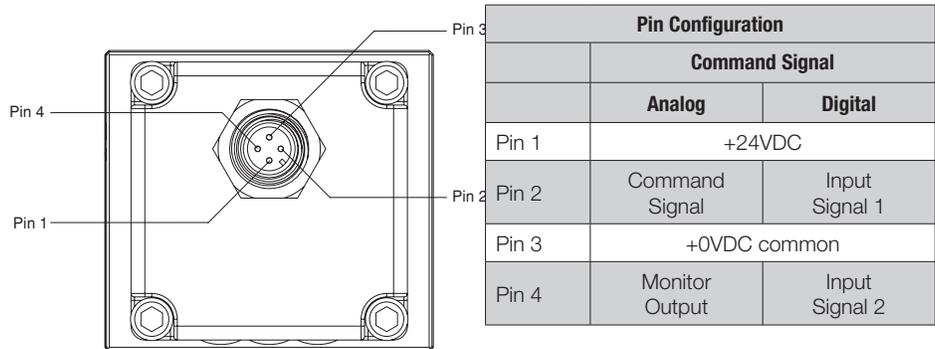
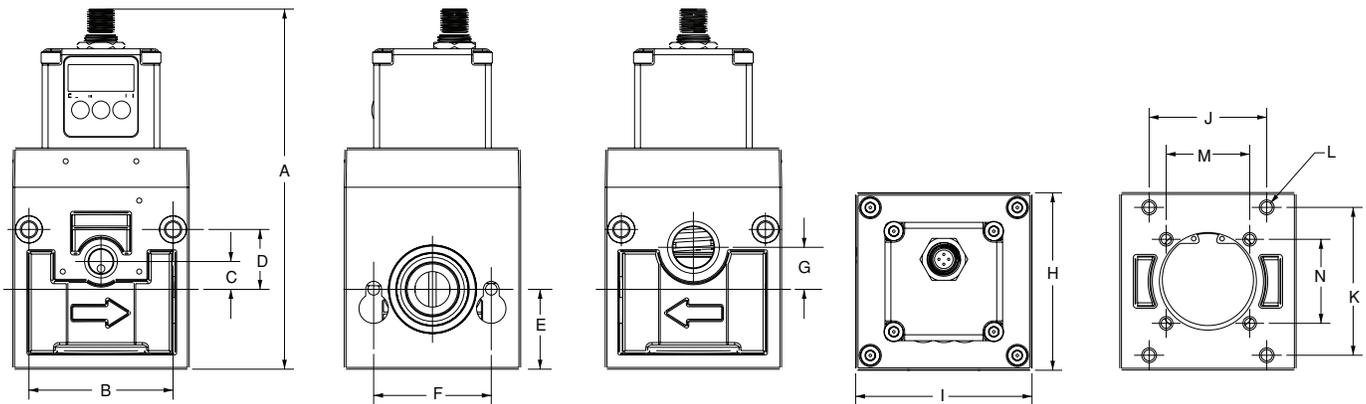
- Available in 1/4, 3/8, and 1/2 NPT, GTap or BSPT threads
- Capable of flow up to 100 SCFM
- Modular 22 Series Flexiblok design
- Fully ported 1/2 exhaust for optimal performance
- Three set performance modes in a single unit
- Large digital display for easy reading
- Locking feature prevents unwanted changes
- Designed to meet IP65 and NEMA 4 requirements

Performance Graphs for E22 Series



Dimensions: Inches (mm)

E22 Series



Dimensions	A	B	C	D	E	F	G	H	I	J	K	L	M	N
E22	5.57 (141)	1.83 (46)	0.29 (7)	.70 (18)	1.00 (25)	1.58 (40)	0.70 (18)	2.17 (55)	2.38 (60)	1.70 (43)	1.80 (46)	0.19 (5)	1.42 (36)	1.42 (36)

Specifications



Specifications		E22
Fluid Media		Air or neutral gas, filtered at 5µm, condensate free, lubricated or unlubricated
Minimum Supply Pressure		Set Pressure + 15 PSI (1 BAR)
Maximum Supply Pressure		Standard Pressure: 150 PSI (10 BAR) High Pressure: 190 PSI (13 BAR)
Regulating Pressure Ranges		Standard Pressure: 0-100 PSI (0-6.9 BAR) High Pressure: 0-150 PSI (0-10.2 BAR)
Power Supply	Voltage	24VDC ±10%
	Current Consumption	0.04 A
Input Signal	Current	4-20mA
	Voltage	0-5VDC, 0-10VDC
Input Impedance	0-5 VDC	10 KΩ
	0-10 VDC	20 KΩ
	4-20 mA	100 Ω
Output Signal	Analog Output	0-5VDC 0-10VDC 4-20mA
	Switch Output	24VDC (PNP or NPN)
Linearity		≤ ±1% of span
Hysteresis		≤ ±.5% of span
Repeatability		≤ ±.5% of span
Sensitivity		≤ ±.2% of span
Temp Characteristics		±.5% of span /°C
Output Display	Accuracy	±3% of span
	Minimum unit	PSI 0.1, BAR 0.01, kPa 0.01, kgf/cm² 0.01
Temperature Range		40-120°F 4-50°C
Enclosure		IP65 and NEMA 4 Equivalent
Weight		1.4 lbs. (0.64kg)

How to Order

E 22 3 - 04 3 H

Series

22 = 22 Series

Command Signal

- 1 = 4 - 20mA
- 2 = 0 - 5VDC
- 3 = 0 - 10VDC
- 9 = 2 bit, 4 pressure select (PNP Sourcing)
- 0 = 2 bit, 4 pressure select (NPN Sinking)

Thread Types

- = NPTF
- G = GTap (BSPP)
- R = PT (BSPT)

Options

H = 0 - 150 PSI (10 BAR) regulating pressure range
(For 0-100 PSI standard unit no suffix necessary)

Feedback Signal

- 1 = 4 - 20mA
- 2 = 0 - 5VDC
- 3 = 0 - 10VDC
- 8 = 24VDC Switched (PNP)
- 9 = 24VDC Switched (NPN)
- 0 = use with 2 bit, 4 pressure select (type 9 or 0 command signal)

Port Tap Size

- 02 = 1/4
- 03 = 3/8
- 04 = 1/2

Accessories



Micro Female 4 Pole 90 Degree 22 AWG Euro Color Code

Unshielded	Shielded
3 Meter - TC0403MIE0000000	3 Meter - TC0403MME0000000
5 Meter - TC0405MIE0000000	5 Meter - TC0405MME0000000



Micro Female 4 Pole 90 Degree 22 AWG Euro Color Code

Unshielded	Shielded
3 Meter - TD0403MIE0000000	3 Meter - TD0403MME0000000
5 Meter - TD0405MIE0000000	5 Meter - TD0405MME0000000



Micro F/M 4 Pole Straight 22 AWG Euro Color Code

Unshielded	Shielded
3 Meter - TC0403MIETA04000	3 Meter - TC0403MMETA04000
5 Meter - TC0405MIETA04000	5 Meter - TC0405MMETA04000

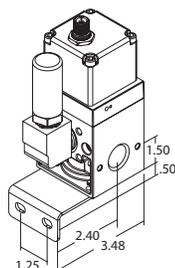


Micro F 90°/M Straight 22 AWG Euro Color Code

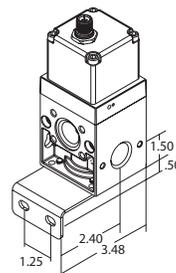
Unshielded	Shielded
3 Meter - TD0403MIETA04000	3 Meter - TD0403MMETA04000
5 Meter - TD0405MIETA04000	5 Meter - TD0405MMETA04000

Bracket/Muffler Kits

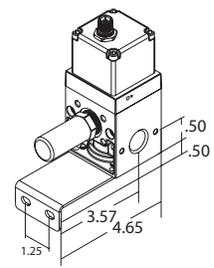
Model Number	Description
BRK-KIT	Includes (1) E02-10 Bracket, (4) E32-11 Screws, (1) M4MN Muffler, (1) E22-29 Elbow
BRK-KIT-WOEM	Includes (1) E02-10 Bracket, (4) E32-11 Screws
BRK-KIT-LWOE	Includes (1) E32-10 Bracket, (4) E32-11 Screws, (1) M4MN Muffler



BRK-KIT



BRK-KIT-WOEM



BRK-KIT-LWOE