

# Exner Characterized Control Valves

The Chemline E Series Exner Characterized Control Valves provide extremely precise flow control of aggressive fluids. Valves flow characteristics ( $C_v$  vs. lift) follow theoretical linear or equal percentage curves through the entire range of stem travel. This is accomplished with precision made replaceable seats and plugs in a wide variety of  $C_v$  values.

The Teflon® bellows shaft seal provides almost frictionless stem movement and provides over 10 years of maintenance-free operation on aggressive chemical services<sup>1</sup>.

## Precise & Sensitive Control Changeable Plugs & Seats Low Maintenance

### Features

#### Precise and Sensitive Control

- Predictable and repeatable control of corrosive fluids. These valves respond smoothly and quickly to small changes in signal. Deadband and hysteresis is negligible.

#### High Rangeability

- Valve characteristics (flow rate vs. stem lift) follows the theoretical curves through the entire range of opening including extreme ends of travel

#### Class IV Leakage

- Rate is 0.01% of rated capacity according to ANSI B16.104-1976

#### Large Choice of $C_v$ Values

- 18 standard  $C_v$ 's from 0.11 to 105.00
- Smaller  $C_v$ 's down to 0.003 are available

#### Field Interchangeable Seats and Plugs

- Valve  $C_v$  may be changed later if flow conditions change
- Special materials are available

#### Abrasion Resistant

- Have outperformed metal valves on aggressive and crystallizing services



#### EE Series Electrically Actuated

<sup>1</sup>Service history references are available on request.



**CHEMLINE**  
Plastics Limited

*Your Pipeline To Quality*

## PVC, PP, PVDF & Teflon® PTFE

**SERIES:** EK – Pneumatic  
EE – Electric (CSA Approved)

**SIZES:** 1/2" – 4"

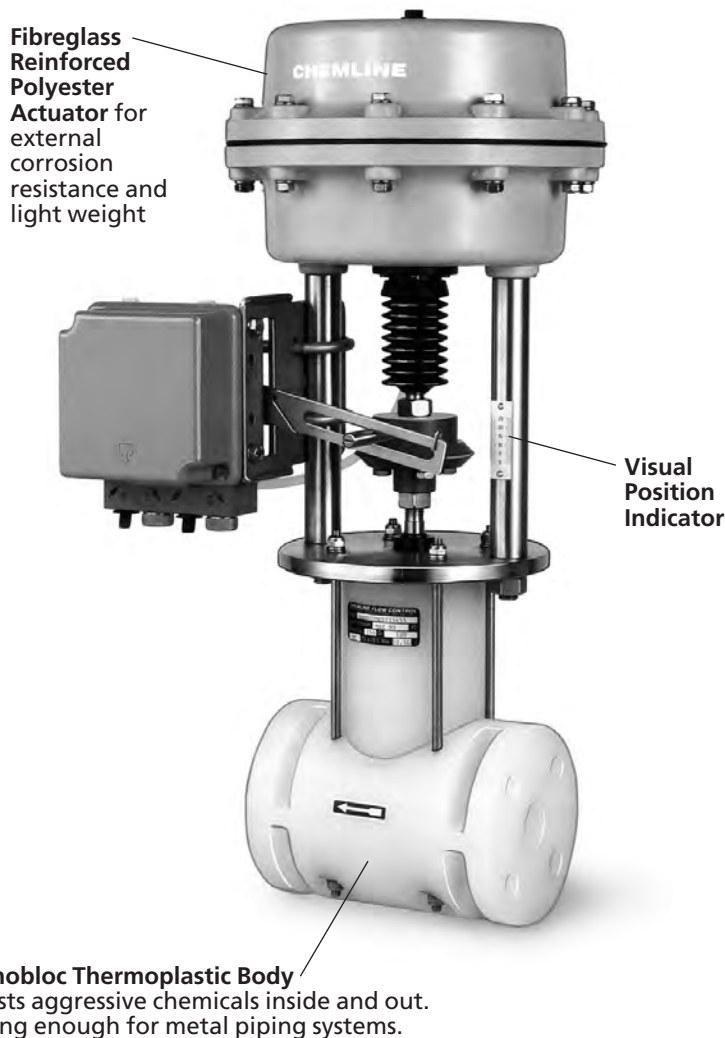
**TYPE:** Single Seat Globe or Needle Type

**ENDS:** Flanged

**SHAFT SEAL:** Teflon® PTFE Bellows

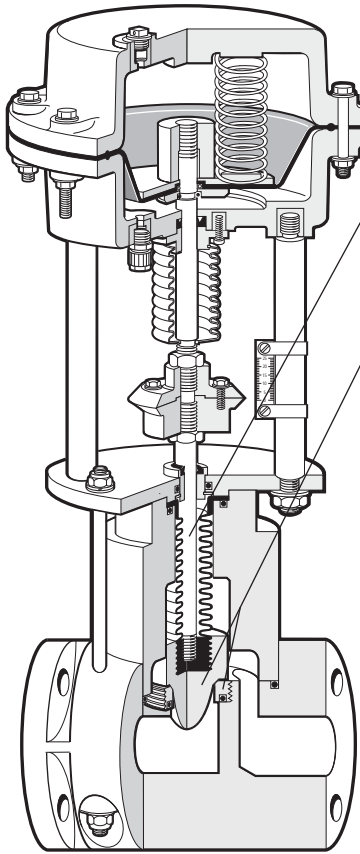
**BODY SEAL:** EPDM, FKM (Viton®), FEP

EK Series with PVDF body and optional positioner



**Monobloc Thermoplastic Body**  
Resists aggressive chemicals inside and out.  
Strong enough for metal piping systems.

# Exner Characterized Control Valves



## Teflon® PTFE Bellows Stem Seal:

- Almost frictionless stem travel for sensitive operation and precise control
- High Chemical Resistance – PTFE resists aggressive services
- Long Cycling Life – Low maintenance – Safety

## Characterized Plug and Seat Set

- A wide choice of seat/plugs with standard  $C_v$  values are available characterized either equal percentage or linear.
- Globe Plugs are available for any special specified  $C_v$  value from 0.11 to 105.00
- Seats and plugs are easily replaceable in the field. If operating conditions change, the valve  $C_v$  may be changed.



## High Pressure Valve

- Solid PVDF body with stainless steel armouring for working pressures up to 16 bar (230 psi)
- PTFE stem packing, Titanium stem



## Lime Slurry Valve

- Special abrasion resistant design for lime slurry service
- Stainless steel body
- PTFE stem packing
- CrNi coated trim

## Chlorine Valve

- Solid PVDF body, PTFE Stem Packing
- Hastelloy bellows and shaft
- Sniffer connection to monitor stem seal

## Needle Valve

- Needles are available linear characteristic in Hastelloy, Titanium, Tantalum or 316 SS with small  $C_v$ 's 0.003 to 0.2

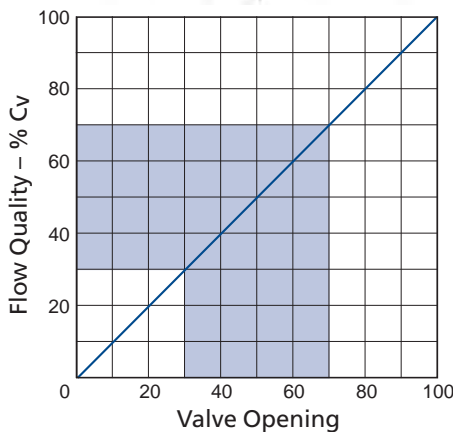
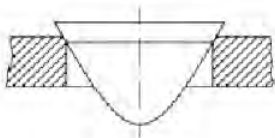
## Flow Characteristic Curves and Valve Sizing

### VALVE SIZING GUIDELINES

In general, for optimum system control, the valve should operate between 30% and 70% of stem stroke (valve opening).

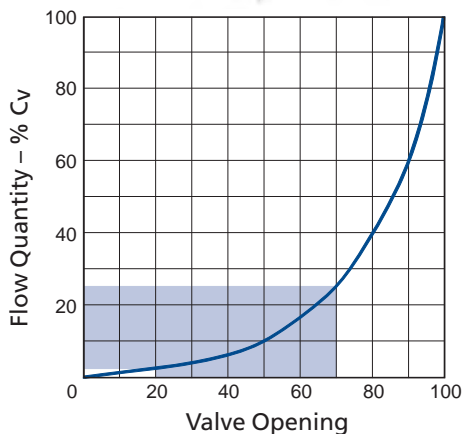
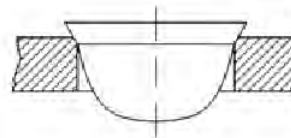
#### LINEAR

For **linear characteristics** the required  $C_v$ 's should be between 30% and 70% of valve  $C_v$ .

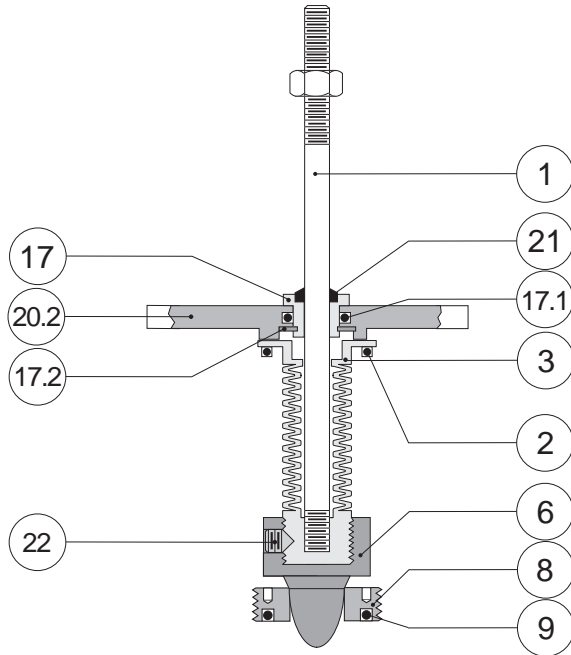


#### EQUAL PERCENTAGE

For **equal percentage characteristic** the required  $C_v$ 's should be between 5% and 25% of valve  $C_v$ .



# Exner Characterized Control Valves



## SEAL & TRIM PARTS

No.	Part	Pcs.	Materials
1	Stem	1	SS 316Ti, Titanium, Hastelloy
2	Bellows O-Ring	1	EPDM, FKM (Viton®), FEP
3	Bellows	1	Teflon® PTFE
6	Plug	1	PVC, PP, PVDF, PTFE
8	Seat	1	PVC, PP, PVDF, PTFE
9	Seat O-Ring	1	EPDM, FKM (Viton®), FEP
17	Guide Bushing	1	CPVC
17.1	O-Ring	1	EPDM, FKM (Viton®)
17.2	Lock Ring	1	A2 SS
20.2	Mounting Flange	1	SS 316Ti
21	Wiper Ring	1	FKM (Viton®)
22	Set Screw <sup>1</sup>	1	PVDF

<sup>1</sup>Only on valve sizes 1-1/4" to 4".

## C<sub>v</sub> VALUES & MAXIMUM SHUTOFF PRESSURES – PVC/PP Valves

VACUUM RESISTANCE • 29.9 inches mercury

Valve Size	Maximum Shut-off Pressure at 20°C																		
	90 psi																60 psi		
	C <sub>v</sub> =	0.12	0.23	0.46	0.70	1.20	1.75	2.60	4.00	6.10	9.50	10.5	16.0	25.0	40.0	46.0	64.0	81.0	93.0
1/2"	✓	✓	✓	✓	✓	✓	✓												
3/4"	✓	✓	✓	✓	✓	✓	✓	✓	✓										
1"	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓									
1-1/4"					✓	✓	✓	✓	✓	✓	✓								
1-1/2"									✓	✓	✓	✓							
2"										✓	✓	✓	✓						
2-1/2"											✓	✓	✓	✓	✓				
3"												✓	✓	✓	✓	✓			
4"														✓	✓	✓	✓	✓	✓

## C<sub>v</sub> VALUES & MAXIMUM SHUTOFF PRESSURES – PVDF/PTFE Valves

Valve Size	Maximum Shut-off Pressure at 20°C																		
	150 psi												120 psi	90 psi		60 psi			
	C <sub>v</sub> =	0.12	0.23	0.46	0.70	1.20	1.75	2.60	4.00	6.10	10.5	14.0	18.0	29.0	40.0	52.0	70.0	93.0	105.0
1/2"	✓	✓	✓	✓	✓	✓	✓												
3/4"	✓	✓	✓	✓	✓	✓	✓	✓	✓										
1"	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓									
1-1/4"					✓	✓	✓	✓	✓	✓	✓	✓							
1-1/2"									✓	✓	✓	✓	✓						
2"										✓	✓	✓	✓	✓					
2-1/2"											✓	✓	✓	✓	✓				
3"												✓	✓	✓	✓	✓			
4"														✓	✓	✓	✓	✓	✓

## WORKING PRESSURES PSI, for all valve sizes

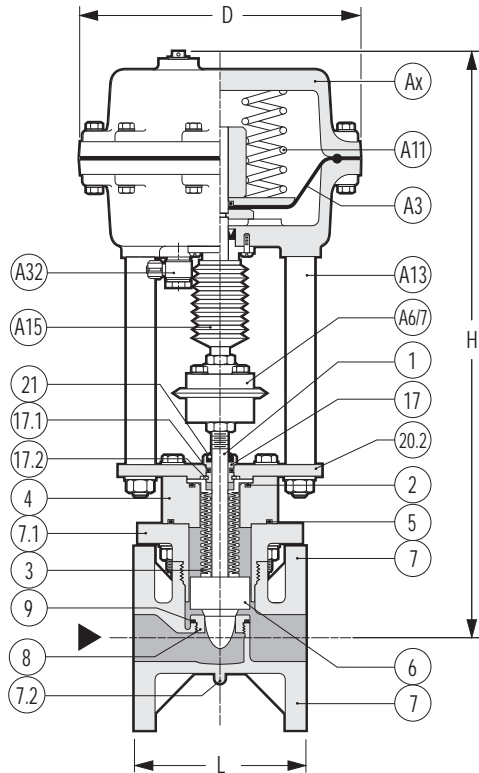
PVC			PP				PVDF						PTFE			
40°C	50°C	60°C	50°C	60°C	70°C	80°C	40°C	60°C	80°C	100°C	120°C	130°C	40°C	60°C	80°C	140°C
104°F	122°F	140°F	122°F	140°F	158°F	176°F	104°F	140°F	176°F	212°F	248°F	266°F	104°F	140°F	176°F	284°F
90	50	15	90	70	50	30	150	115	90	70	45	30	150	115	90	90

Temperature Ranges: PVC 0 to 60°C (32 to 140°F), CPVC 0 to 95°C (32 to 203°F), PP -20 to 80°C (-4 to 176°F), PVDF -40 to 100°C (-40 to 212°F).

# EK Series Pneumatic – PVC & PP



EK Series Pneumatically Actuated  
PVC or PP Moulded Body



## PARTS

▲ Recommended Spare Parts

No.	Part	Pcs.	Materials
1	Stem	1	316 SS
2▲	Bellows O-Ring	1	EPDM, FKM (Viton®)
3▲	Bellows	1	Teflon® PTFE
4	Upper Bonnet	1	PVC, PP
5▲	Body O-Ring	1	EPDM, FKM (Viton®)
6▲	Plug	1	PVC, PP
7	Body	1	PVC, PP
7.1	Lower Bonnet	1	PVC, PP
8▲	Seat	1	PVC, PP
9▲	Seat O-Ring	1	EPDM, FKM (Viton®)
17	Guide Bushing	1	CPVC
17.1▲	O-Ring	1	EPDM, FKM (Viton®)
17.2	Lock Ring	1	Stainless Steel
20.2	Mounting Flange	1	316 SS
21▲	Wiper Ring	1	FKM (Viton®)
Ax	Pneumatic Actuator	1	FRP
A3	Diaphragm	1	Reinforced EPDM
A6	Coupling	1	316 SS
A7	Coupling	1	316 SS
A11	Spring	6	Coated Steel
A13	Mounting Post	2	316 SS
A15	Upper Shaft Bellows	1	CSM
A32	Air Connection	1	1/4" FNPT

## DIMENSIONS INCHES

Size	D	H	L	Stroke	Bolt Holes			Actuator Type	WEIGHTS LB.	
					No.	Dia.	BCD		PVC	PP
1/2"	8.7	17.4	3.3	0.6	4	5/8"	2.38	K220	18.7	17.0
3/4"	8.7	17.5	3.7	0.6	4	5/8"	2.75	K220	18.9	17.2
1"	8.7	17.5	4.3	1.0	4	5/8"	3.12	K220	19.9	18.1
1-1/4"	8.7	17.8	5.3	1.0	4	5/8"	3.50	K220	21.3	19.4
1-1/2"	8.7	17.6	7.5	1.0	4	5/8"	3.88	K220	22.6	20.5
2"	8.7	17.7	7.9	1.0	4	3/4"	4.75	K220	24.0	21.8
2-1/2"	13.0	23.3	8.7	1.6	4	3/4"	5.49	K330	47.3	43.0
3"	13.0	23.3	9.4	1.6	4	3/4"	6.00	K330	67.9	61.7
4"	13.0	23.4	11.4	1.6	8	3/4"	7.50	K330	82.5	75.0

EK Series valves – FRP Actuator – 90 psi maximum supply air.

The actuator will close the valve tightly against higher line pressure drops, up to 90 psi depending on the  $C_v$ .

## ACCESSORIES FOR EK SERIES

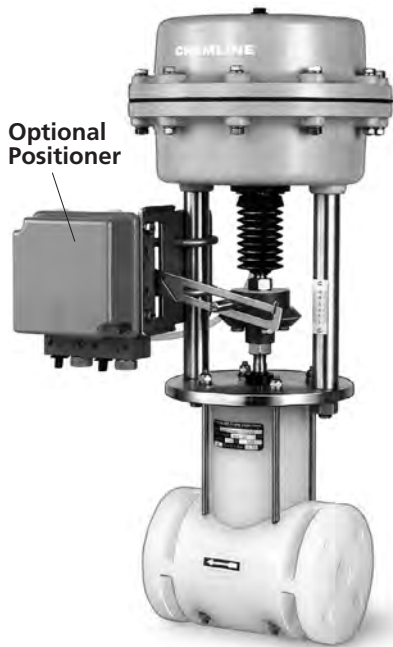
**Positioners** – YT Series linear valve positioners are usually used on all EK Series pneumatically actuated control valves. They control actuator-valve stem position as a linear function of input signal, usually electronic (most often 4–20 mA) or sometimes pneumatic (3–15 psi). Valves with  $C_v$  9.5 (PVC & PP valves) and  $C_v$  10.5 (PVDF & PTFE valves) or lower may be operated with the 3–15 psi signal directly without a positioner, but the linearity is compromised. The standard units have epoxy coated aluminum enclosures but are available in 316 stainless steel. All available models are attractively priced:

- **YT1200R 3–15 psi Pneumatic** – a conventional all-mechanical positioner
- **YT1300R 4–20 mA Electro-Pneumatic** – an electronic positioner designed for vibration resistance, better control and easy calibration

- **YT2300 4–20 mA Smart** – a fully digital positioner with intelligent functions like auto calibration, PID control, also theoretical and user defined characterized output. Options include alarms (switch or relay output), 4–20 mA transmitter for position feedback and HART digital communication protocol.

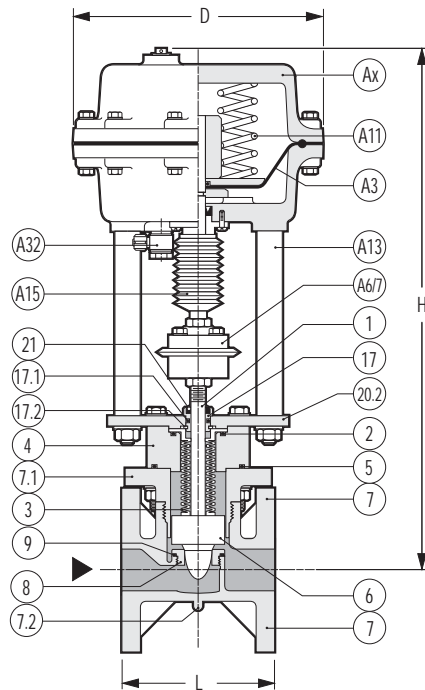
**Air Filter/Regulator** – Chemline includes an air filter/regulator with all positioners to prevent orifices from clogging due to debris and to protect from corrosion or fouling due to excess oil or condensed water in the air supply. The F/R-A is a one-piece air filter/regulator and pressure gauge with a GRP plastic body, polycarbonate filter bowl and polyethylene filter element. The filter bowl has a manual drain valve.

# EK Series Pneumatic – PVDF & PTFE



Optional Positioner

EK Series Pneumatically Actuated PVDF or PTFE Machined Body



## PARTS

▲ Recommended Spare Parts

No.	Part	Pcs.	Materials
1	Stem	1	316 SS
2▲	Bellows O-Ring	1	FKM (Viton®), FEP
3▲	Bellows	1	Teflon® PTFE
4	Bonnet	1	PVDF, PTFE
5▲	Body O-Ring	1	FKM (Viton®), FEP
6▲	Plug	1	PVDF, PTFE
7	Body	1	PVDF, PTFE
8▲	Valve Seat	1	PVDF, PTFE
9▲	Seat O-Ring	1	FKM (Viton®), FEP
17	Guide Bushing	1	CPVC
17.1▲	O-Ring	1	FKM (Viton®), FEP
17.2	Lock Ring	1	Stainless Steel
20.2	Mounting Flange	1	316 SS
21▲	Wiper Ring	1	FKM (Viton®)
Ax	Pneumatic Actuator	1	FRP
A3	Diaphragm	1	Reinforced EPDM
A6	Coupling	1	316 SS
A7	Coupling	1	316 SS
A11	Spring	6	Coated Steel
A13	Mounting Post	2	316 SS
A15	Upper Shaft Bellows	1	CSM
A32	Air Connection	1	1/4" FNPT

## DIMENSIONS INCHES

## WEIGHTS LB.

Size	D <sub>2</sub>	H	L	Stroke	Bolt Holes				Actuator Type	PVDF	PTFE
					No.	BCD	PVDF†	PTFE†			
1/2"	8.7	18.4	5.1	0.6	4	2.38	5/8"	1/2" UNC	K220	18.7	26.5
3/4"	8.7	18.7	5.9	0.6	4	2.75	5/8"	1/2" UNC	K220	20.9	30.9
1"	8.7	18.7	6.3	1.0	4	3.12	5/8"	1/2" UNC	K220	23.1	36.4
1-1/4"	8.7	18.8	7.1	1.0	4	3.50	5/8"	1/2" UNC	K220	26.5	41.9
1-1/2"	8.7	19.0	7.9	1.0	4	3.88	5/8"	1/2" UNC	K220	32.0	50.7
2"	8.7	19.3	9.1	1.0	4	4.75	3/4"	5/8" UNC	K220	35.3	55.1
2-1/2"	13.0	24.6	11.4	1.6	4	5.49	3/4"	5/8" UNC	K330	68.3	79.4
3"	13.0	44.9	12.2	1.6	4	6.00	3/4"	5/8" UNC	K330	79.4	99.2
4"	13.0	24.9	13.8	1.6	8	7.50	3/4"	5/8" UNC	K330	88.2	121.3

EK Series valves – FRP Actuator – 90 psi maximum supply air.

The actuator will close the valve tightly against higher line pressure drops, up to 150 psi depending on the C<sub>v</sub>.

Note: 5" and 6" valves consult Chemline. †PVDF are bolt holes, PTFE are threaded UNC inserts.

## ORDERING EXAMPLE – EK SERIES PNEUMATICALLY ACTUATED

Chemline Characterized Control Valves	EK	K	005	NC	V	F
Actuator Type	EK – Pneumatic					
Body	A – PVC	B – PP	K – PVDF	P – PTFE		
Size	005 – 1/2"	007 – 3/4"	010 – 1"	012 – 1-1/4"	015 – 1-1/2"	
	020 – 2"	025 – 2-1/2"	030 – 3"	040 – 4"		
Control Function	NC – Normally Closed		NO – Normally Open			
Body Seal	E – EPDM <sup>1</sup> V – FKM (Viton®) P – FEP					
Ends	F – Flanged					

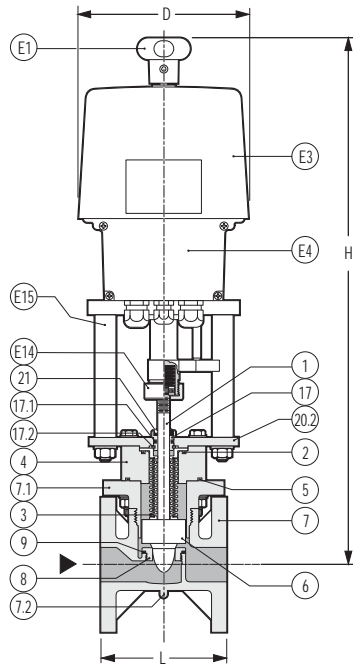
Also specify: Characteristic (linear or equal percentage) and C<sub>v</sub> Value (from chart on page 28).

Example: Chemline EK Series Pneumatically Actuated Characterized Control Valve, PVDF, 1/2", Normally Closed, with Viton® body seal, flanged, C<sub>v</sub> Value = 0.23 Linear. <sup>1</sup>EPDM available with PVC or PP bodies only.

# EE Series Electric – PVC & PP



**EE Series Electrically Actuated  
PVC or PP Moulded Body**



- **Power Supply:** 115 VAC/50/60Hz
- **Enclosure Rating:** NEMA 4X, IP 65 with temperature and load protection
- **Current Draw:** 0.23 amps.
- **Adjustable Opening/Closing Times:** 1/2" to 2" valves: 32 to 62 sec.; 2-1/2" to 4" valves: 55 to 111 sec.
- **Optional Voltages:** 230 VAC/50/60Hz, 24 VDC or 24VAC
- **4-20mA Retransmit:** For valve position feedback, 2 or 3-wire technology
- **Duty Cycle:** 50%
- **Maximum Power Consumption:** 30 VA
- **Control Input:** 0-10 V or 0-20mA

## PARTS

▲ Recommended Spare Parts

No.	Part	Pcs.	Materials
1	Stem	1	316 SS
2▲	Bellows O-Ring	1	EPDM, FKM (Viton®)
3▲	Bellows	1	Teflon® PTFE
4	Bonnet	1	PVC, PP
5▲	Body O-Ring	1	EPDM, FKM (Viton®)
6▲	Plug	1	PVC, PP
7	Body	1	PVC, PP
7.1	Flange	1	PVC, PP
8▲	Valve Seat	1	PVC, PP
9▲	Seat O-Ring	1	EPDM, FKM (Viton®)
11-14	Body Bolts & Nuts	4	316 SS
17	Guide Bushing	1	CPVC
17.1▲	O-Ring	1	EPDM, FKM (Viton®)
17.2	Lock Ring	1	Stainless Steel
20.2	Mounting Flange	1	316 SS
21▲	Wiper Ring	1	FKM (Viton®)
E1	Position Indicator	1	Polycarbonate
E3	Actuator Cover	1	Polycarbonate
E4	Terminal Box	1	Polycarbonate
E14	Coupling	1	Stainless Steel
E15	Mounting Post	2	Stainless Steel

## Approved by CSA

(Canadian Standards Association)

## DIMENSIONS INCHES

## WEIGHTS LB.

Size	D	H	L	Stroke	Bolt Holes			Actuator Type	PVC	PP
					No.	Dia.	BCD			
1/2"	7.0	21.6	3.3	0.6	4	5/8"	2.38	PSL202	17.6	15.9
3/4"	7.0	21.7	3.7	0.6	4	5/8"	2.75	PSL202	17.8	16.1
1"	7.0	21.7	4.3	1.0	4	5/8"	3.12	PSL202	18.8	17.0
1-1/4"	7.0	21.9	5.3	1.0	4	5/8"	3.50	PSL202	20.2	18.3
1-1/2"	7.0	21.8	7.5	1.0	4	5/8"	3.88	PSL202	21.5	19.4
2"	7.0	21.8	7.9	1.0	4	3/4"	4.75	PSL202	22.9	20.7
2-1/2"	7.0	24.4	8.7	1.6	4	3/4"	5.49	PSL204	21.9	17.6
3"	7.0	24.4	9.4	1.6	4	3/4"	6.00	PSL204	42.5	36.4
4"	7.0	24.7	11.4	1.6	8	3/4"	7.50	PSL204	57.1	49.6

## ACCESSORIES FOR EE SERIES

**Limit Switches** – Two extra mechanical SPDT limit switches for valve position feedback

**Output Relay** – A normally open contact for remote indication of Manual/Auto mode or fault indication

**Heater/Thermostat** – Prevents condensation forming inside the actuator enclosure and is recommended for outdoor or high humidity areas

**Fail-Safe Battery Pack** – A Ni-Cd battery pack with controlled charger. In case of loss of power the valve will be powered to a chosen safety position, open or closed.

**Local Control Box** – The lockable model PSC.2 box permits manual operation of the valve. The backlit LCD display allows the user to do most of the actuator settings, displays the valve's actual position and status (manual or auto) or shows diagnostic messages. It is normally attached to the actuator but can be mounted remotely.

**PSCS Communication Software** – This software allows a high degree of functionality through a user friendly Windows interface. Many functions beyond the setting, monitoring and diagnostic functions of the Control Box are available including custom output characterization, alarm monitoring, etc. Values can be graphically displayed and analyzed on the computer monitor. Preventative maintenance is possible resulting in better safety and management of the process.

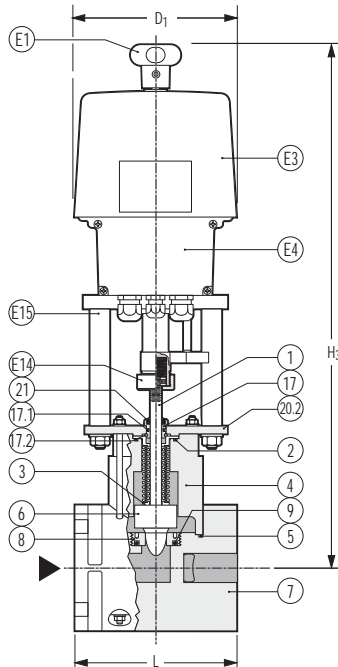
**Fieldbus/Blue Tooth Interface** – Electronic modules are available for all common field bus interfaces or Bluetooth protocol. Actuator status, settings and diagnostics read-outs are possible at distances up to 10 meters (33 feet).

**Process Controller** – This is an integral PI(D) process controller located inside the actuator.

# EE Series Electric – PVDF & PTFE



EE Series Electrically Actuated  
PVDF or PTFE Machined Body



## PARTS

▲ Recommended Spare Parts

No.	Part	Pcs.	Materials
1	Stem	1	316 SS
2▲	Bellows O-Ring	1	FKM (Viton®), FEP
3▲	Bellows	1	Teflon® PTFE
4	Bonnet	1	PVDF, PTFE
5▲	Body O-Ring	1	FKM (Viton®), FEP
6▲	Plug	1	PVDF, PTFE
7	Body	1	PVDF, PTFE
8▲	Valve Seat	1	PVDF, PTFE
9▲	Seat O-Ring	1	FKM (Viton®), FEP
11-14	Body Bolts & Nuts	4	316 SS
17	Guide Bushing	1	CPVC
17.1▲	O-Ring	1	FKM (Viton®), FEP
17.2	Lock Ring	1	Stainless Steel
20.2	Mounting Flange	1	316 SS
21▲	Wiper Ring	1	FKM (Viton®)
E1	Position Indicator	1	Polycarbonate
E3	Actuator Cover	1	Polycarbonate
E4	Terminal Box	1	Polycarbonate
E14	Coupling	1	Stainless Steel
E15	Mounting Pillar	2	Stainless Steel

- **Power Supply:** 115 VAC/50/60Hz
- **Enclosure Rating:** NEMA 4X, IP 65 with temperature and load protection
- **Current Draw:** 0.23 amps.
- **Adjustable Opening/Closing Times:** 1/2" to 2" valves: 32 to 62 sec.;  
2-1/2" to 4" valves: 55 to 111 sec.
- **Optional Voltages:** 230 VAC/50/60Hz, 24 VDC or 24VAC
- **4-20mA Retransmit:** For valve position feedback, 2 or 3-wire technology
- **Duty Cycle:** 50%
- **Maximum Power Consumption:** 30 VA
- **Control Input:** 0-10 V or 0-20mA

**Approved by CSA**

(Canadian Standards Association)

## DIMENSIONS INCHES

## WEIGHTS LB.

Size	D	H	L	Stroke	Bolt Holes				Actuator Type	PVDF	PTFE
					No.	BCD	PVDF†	PTFE†			
1/2"	7.0	22.5	5.1	0.6	4	2.38	5/8"	1/2"UNC	PSL 202	17.6	25.4
3/4"	7.0	22.8	5.9	0.6	4	2.75	5/8"	1/2"UNC	PSL 202	19.8	29.8
1"	7.0	22.8	6.3	1.0	4	3.12	5/8"	1/2"UNC	PSL 202	22.0	35.3
1-1/4"	7.0	22.9	7.1	1.0	4	3.50	5/8"	1/2"UNC	PSL 202	25.4	40.8
1-1/2"	7.0	23.1	7.9	1.0	4	3.88	5/8"	1/2"UNC	PSL 202	30.9	49.6
2"	7.0	23.4	9.1	1.0	4	4.75	3/4"	5/8"UNC	PSL 202	34.2	54.0
2-1/2"	7.0	25.9	11.4	1.6	4	5.49	3/4"	5/8"UNC	PSL 204	43.0	54.0
3"	7.0	26.2	12.2	1.6	4	6.00	3/4"	5/8"UNC	PSL 204	54.0	73.9
4"	7.0	26.2	13.8	1.6	8	7.50	3/4"	5/8"UNC	PSL 204	62.8	95.9

† PVDF are bolt holes, PTFE are threaded UNC inserts.

## ORDERING EXAMPLE – EE SERIES ELECTRICALLY ACTUATED

Chemline Exner Control Valves		EE	1	K	005	V	F
Actuator Type	EE – Electric						
Voltage	1 – 115 VAC/60Hz    2 – 230 VAC/50Hz 4 – 24 VDC            6 – 24 VAC/60Hz						
Body	A – PVC    B – PP    K – PVDF    P – PTFE						
Size	005 – 1/2"    007 – 3/4"    010 – 1"    012 – 1-1/4"    015 – 1-1/2" 020 – 2"    025 – 2-1/2"    030 – 3"    040 – 4"						
Body Seal	E – EPDM <sup>1</sup> V – FKM (Viton®)    P – FEP						
Ends	F – Flanged						

Also specify: Characteristic (linear or equal percentage) and C<sub>v</sub> Value (from chart on page 28).

Example: Chemline EE Series Electrically Actuated Exner Control Valve, 115VAC/60Hz, PVDF, 1/2", with FKM (Viton®) body seal, flanged, C<sub>v</sub> Value = 0.23 Linear. <sup>1</sup>EPDM available with PVC or PP bodies only.

## EK Accessories

**YTL1000L Positioner** – Direct mount to the linear actuator. Its complement of features includes die-cast aluminum enclosure; inlets for electrical, air and gauge connections; visual position indication; and a temperature rating of -20°C to 70°C. It is available in 3–15 psi pneumatic, 4–20 mA electro-pneumatic, digital or BUS communication versions. It can be fitted with extra switches or a 4–20 mA transmitter for position feedback.



YTL1000L Positioner

## EE Accessories

**PSC.2 Local Control** – The lockable Local Control Box PSC.2 allows on-site operation and can also be used to set most of the actuator-specific values. It displays valve actual position, messages and parameters of the actuator in full text.

**Fieldbus/Blue Tooth Interface** – The main board is prepared for the optional installation of modules for all common field bus interfaces or Bluetooth protocol, which enables wireless setting and read-out of diagnostics of the actuator at distances of up to 10 m.

**PSCS Communication Software** – Actuation thrust/torque and speed, alerts and valve curve correction. The diagnostics function of the communication software PSCS allows to retrieve counting values (such as operating hours, number of start-ups and running time of motor) and sets of running parameters (such as the analogue set value input, actual position value, currently required motor torque and inside temperature of the actuator). The actual values can be graphically displayed and analysed on the computer monitor. Thus the PS-AMS concept allows pro-active maintenance and as a result an increase in process safety.

**Space Heater** – Recommended for high temperature fluctuations or high humidity, to prevent the build-up of condensation within the enclosure.

**Fault Indicator Relay** – Fault messages can be transmitted to control boards with a maximum load of 24 VDC/100 mA via a closing contact at terminals 7 and 8. The messages can set via software PSCS or control box PSC.

**Fail-Safe Unit PSEP** – The Fail-Safe Device PSEP is based on an accumulator with controlled charger, so that a safety position in case of loss of power supply can be freely defined without any mechanical alterations to the actuator.



PSC.2 Local Control



Fail Safe Unit PSEP