

NT™ Proportional Control Valves, Model 6300, Cv 5.6 - 10

Linear, reliable proportional control in CMP slurry applications

The NT™ Proportional Control Valve, Model 6300 is developed for use in ultra high-purity applications. Compatible with highly corrosive processes and designed for use in CMP slurry applications, this valve is an ideal choice to solve today's flow control needs. Featuring PFA and PTFE for wetted parts and inert materials for nonwetted parts, the valve is resistant to harsh chemical environments and external spray-downs. With the latest motor driver technology, the internal electronics control all aspects of the valve's stepper motor. The valve is actuated using Entegris' advanced algorithm design to maintain the desired setpoint.

APPLICATIONS

The NT Proportional Control Valve Model 6300 (flow factor C_v 5.6 and 10) is solving today's flow control challenges by providing a high-purity, linear control valves that can be used on any analog control loop and is ideal for:

- Control for critical dispense, chemical spiking and blending
- Closed-loop control of any separate analog sensor for temperature, pressure, flow, conductivity, etc.



NT Proportional Control Valve, Model 6300

FEATURES & BENEFITS

PFA and PTFE wetted surfaces	Broad chemical compatibility for high-purity applications
Nonmetallic external components	Corrosion resistance extends product lifetime
Double diaphragm construction	Prevents chemical exposure to motor and electronics Protects process from contamination
Optimized seat and diaphragm design	Minimize dead volume and fluid shear for reliable control from fully closed to fully open
Compact footprint	Easy installation where space is limited
Advanced motor driver technology	Provides smooth, precise linear control

SPECIFICATIONS

Materials of construction	Wetted parts	Body, PFA
		Diaphragm, PTFE
	Nonwetted parts	Polypropylene, Viton®, PVDF
Response time	<4 seconds from 5-95% full scale	
Pressure range*	100 to 414 kPa (-14.5 to 60 psig)	
Over pressure limit	689.5 kPa (100 psig)	
Process temperature**	10° – 65°C (50° –149°F)	
Electrical input	24 VDC ± 10%, regulated	
Setpoint input signal	4–20 mA, 0–10 VDC, 0–5 VDC; separate homing line also included	
Enclosure	NEMA 5/IP54	
Connection type***	Flaretek tube fitting and Super 300 Type Pillar tube fitting	
Approvals	CE	

Note: Specifications are subject to change without notice. Please consult the factory for the most current information.

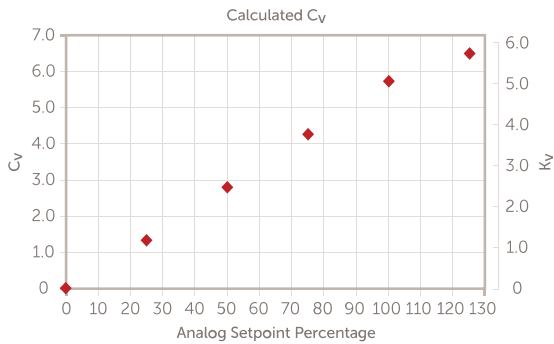
*Please consult the factory for pressure ranges from 414 to 552 kPa (60 to 80 psig).

**Please consult the factory for temperatures from 65° to 80°C (149° to 176°F).

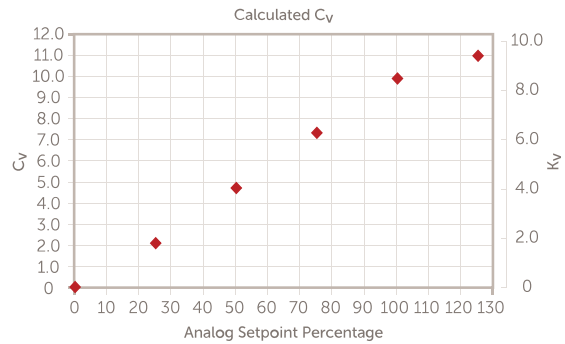
***For PrimeLock® connections and other options not listed, please contact Entegris.

PERFORMANCE DATA

CV7 F06 Max $C_v = 5.6$



CV8 F08 Max $C_v = 10.0$

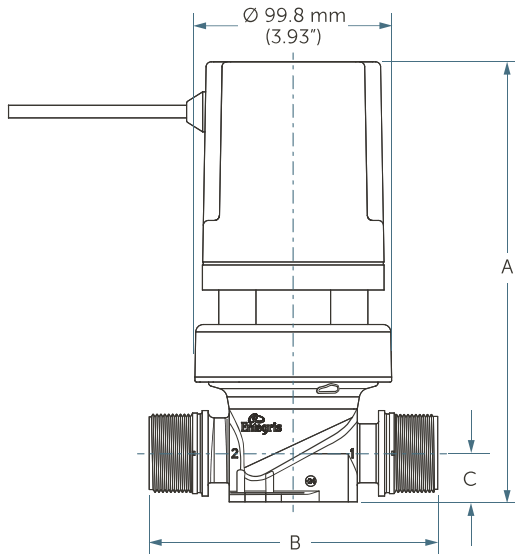


Graph data is representative and each valve needs to be characterized with the application to optimize performance.

DIMENSIONS

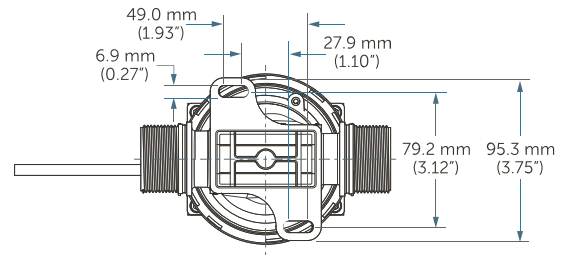
CV7 – CV8 Ranges
(Flaretek 3/4" and 1" Inlet /Outlet Type)

Side View



CV7 – CV8 Ranges
(Flaretek 3/4" and 1" Inlet /Outlet Type)

Bottom View



Inlet/Outlet Port Connection	Dimensions A	B	C
3/4" Flaretek®	223.4 mm (8.79")	129.0 mm (5.08")	24.4 mm (0.96")
1" Flaretek	223.4 mm (8.79")	133.6 mm (5.26")	24.4 mm (0.96")

ORDERING INFORMATION

PART NUMBER	CV	INLET/OUTLET PORT CONNECTION	ELECTRICAL CONNECTOR TYPE	SETPOINT INPUT SIGNAL, CONTROLLER TYPE
6300CV7F6B12K	5.6	3/4" Flaretek® tube fitting	FEP-jacketed 12' (366 cm) pigtail electrical cable	4-20 mA
6300CV7F6B12L	5.6	3/4" Flaretek® tube fitting	FEP-jacketed 12' (366 cm) pigtail electrical cable	0-10 VDC
6300CV7F6B12M	5.6	3/4" Flaretek® tube fitting	FEP-jacketed 12' (366 cm) pigtail electrical cable	0-5 VDC

ORDERING INFORMATION

PART NUMBER	CV	INLET/OUTLET PORT CONNECTION	ELECTRICAL CONNECTOR TYPE	SETPOINT INPUT SIGNAL, CONTROLLER TYPE
6300CV7F6G1K	5.6	3/4" Flaretek® tube fitting	PVC-jacketed 1' (30 cm) electrical cable terminated with 14 pin Turck connector (mating cable sold separately)	4-20 mA
6300CV7F6G1L	5.6	3/4" Flaretek® tube fitting	PVC-jacketed 1' (30 cm) electrical cable terminated with 14 pin Turck connector (mating cable sold separately)	0-10 VDC
6300CV7F6G1M	5.6	3/4" Flaretek® tube fitting	PVC-jacketed 1' (30 cm) electrical cable terminated with 14 pin Turck connector (mating cable sold separately)	0-5 VDC
6300CV8F8B12K	10.0	1" Flaretek® tube fitting	FEP-jacketed 12' (366 cm) pigtail electrical cable	4-20 mA
6300CV8F8B12L	10.0	1" Flaretek® tube fitting	FEP-jacketed 12' (366 cm) pigtail electrical cable	0-10 VDC
6300CV8F8B12M	10.0	1" Flaretek® tube fitting	FEP-jacketed 12' (366 cm) pigtail electrical cable	0-5 VDC
6300CV8F8G1K	10.0	1" Flaretek® tube fitting	PVC-jacketed 1' (30 cm) electrical cable terminated with 14 pin Turck connector (mating cable sold separately)	4-20 mA
6300CV8F8G1L	10.0	1" Flaretek® tube fitting	PVC-jacketed 1' (30 cm) electrical cable terminated with 14 pin Turck connector (mating cable sold separately)	0-10 VDC
6300CV8F8G1M	10.0	1" Flaretek® tube fitting	PVC-jacketed 1' (30 cm) electrical cable terminated with 14 pin Turck connector (mating cable sold separately)	0-5 VDC

FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit entegris.com and select the [Contact Us](#) link to find the customer service center nearest you.

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