

# 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 Cv, 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.

## FEATURES & BENEFITS

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



*NT Proportional Control Valve, Model 6300*

## SPECIFICATIONS

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

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

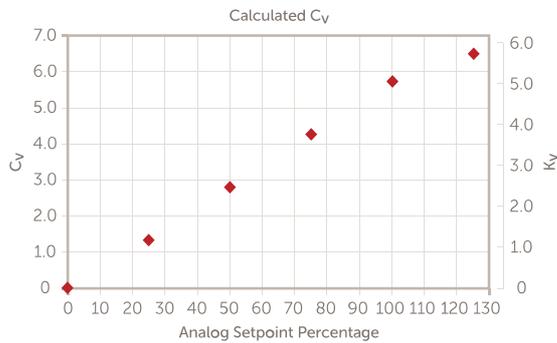
\*Please consult the factory for pressure ranges from 414 to 552 kPa (60 to 80 psig).

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

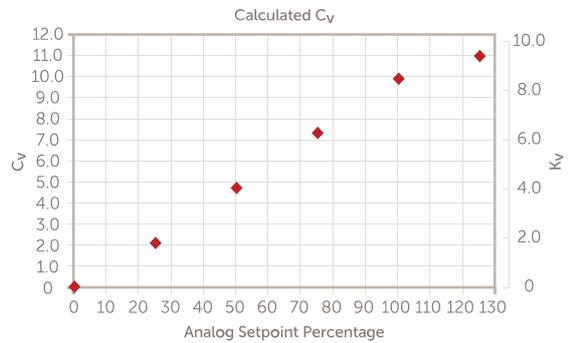
\*\*\*For PrimeLock® connections and other options not listed, please contact Entegris.

## PERFORMANCE DATA

CV7 F06 Max  $C_V = 5.6$



CV8 F08 Max  $C_V = 10.0$

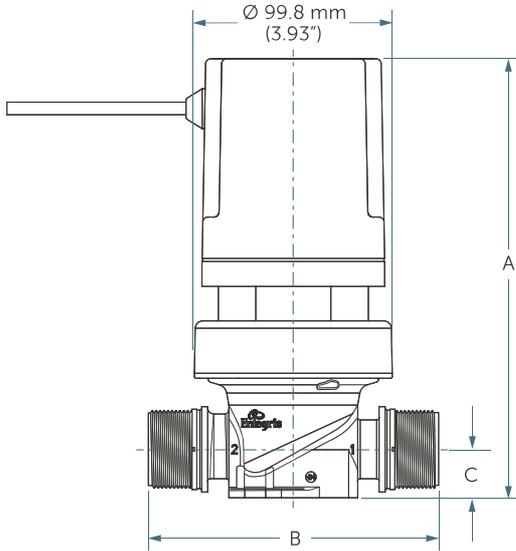


Graph data is representative and each valve needs to be characterized with the application to optimize performance.

## DIMENSIONS

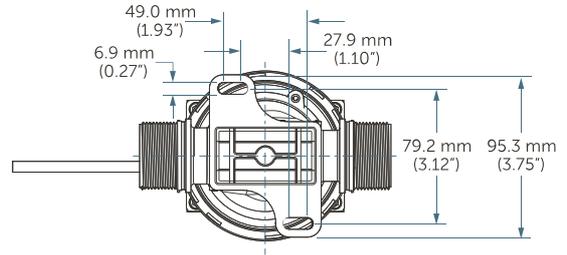
### CV7 – CV8 Ranges (Flaretek 3/4" and 1" Inlet /Outlet Type)

#### 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
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

## ORDERING INFORMATION

PART NUMBER	CV	INLET/OUTLET PORT CONNECTION	ELECTRICAL CONNECTOR TYPE	SETPOINT INPUT SIGNAL, CONTROLLER TYPE
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](http://entegris.com) and select the [Contact Us](#) link to find the customer service center nearest you.

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