



NT® PROPORTIONAL CONTROL VALVE, MODEL 6300 FLOW FACTOR C_v 5.6 AND 10

Linear, reliable proportional control

Overview

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.



NT Proportional Control Valve, Model 6300

Applications

Entegris is solving today's flow control challenges by providing a high-purity, linear control valve that can be used on any analog control loop.

Applications include:

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

Features and Benefits

Features	Benefits
PFA and PTFE wetted surfaces	Broad chemical compatibility for high-purity applications
Nonmetallic external components	Corrosion resistance extends product lifetime
Robust 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:	<2 seconds from 5–95% full scale	
Pressure range*:	-100 kPa–414 kPa (-14.5–60 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 Pillar® Super 300 tube fitting	

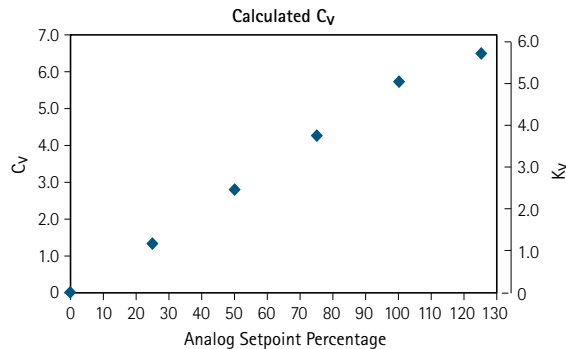
Note: Specifications are subject to change without notice. Please consult the factory for the most current information.

** Please consult the factory for pressure ranges from 60–80 PSIG.*

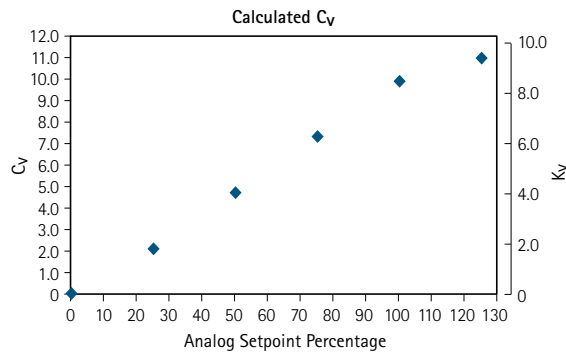
*** Please consult the factory for temperatures from 65–80 PSIG.*

Performance Data†

CV7 F06 Max C_v = 5.6



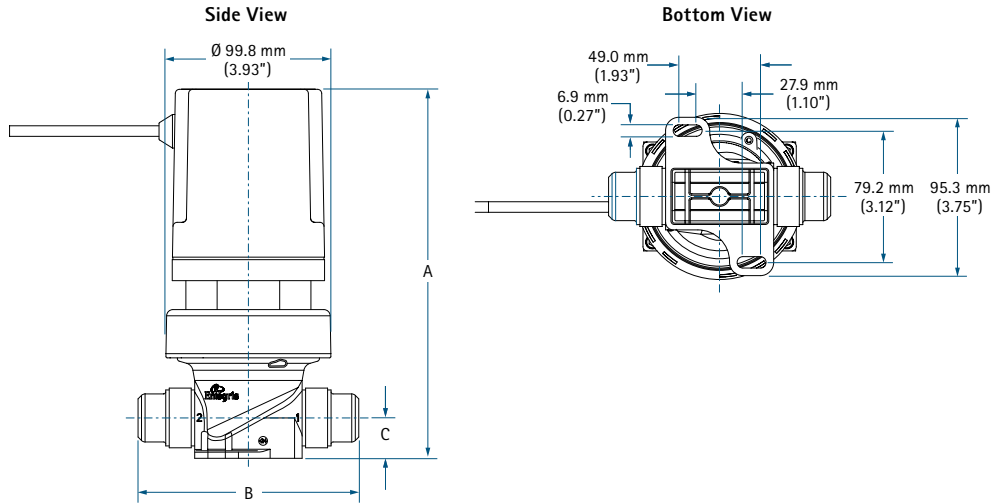
CV10 F08/W08 Max C_v = 10.0



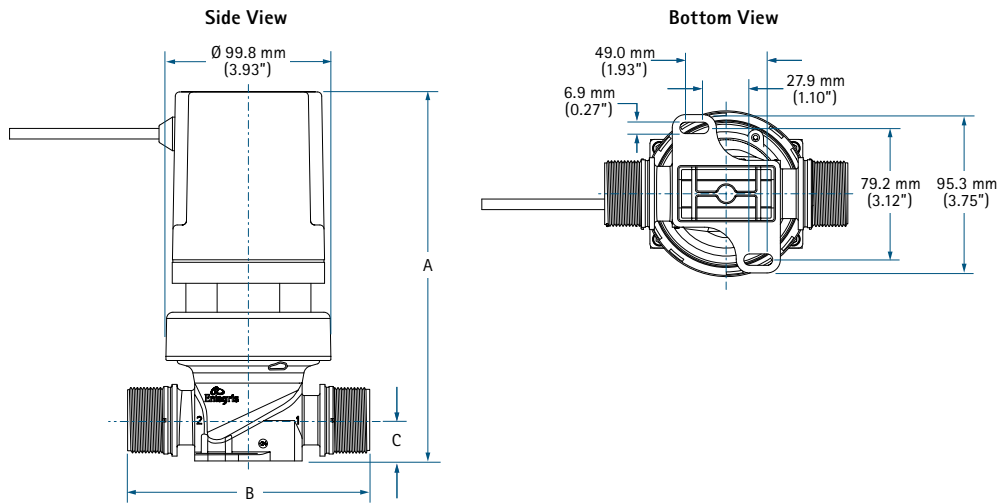
† Graph data is representative and each valve needs to be characterized with the application to optimize performance.

Dimensions

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



CV7–CV8 Ranges (Pillar Super 300 1" Inlet/Outlet)



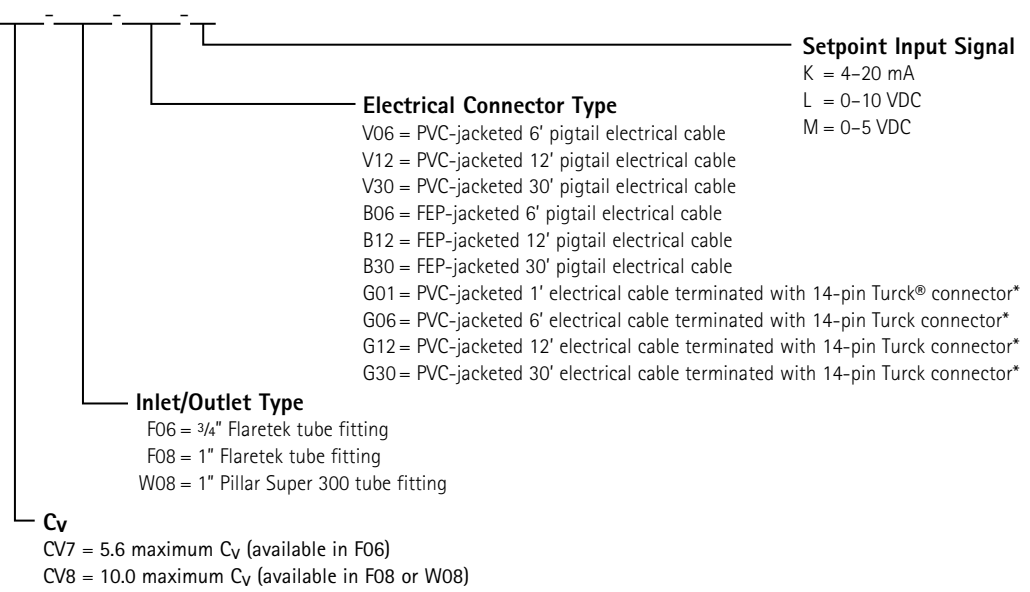
Inlet/Outlet Port Connection	Dimensions		
	A	B	C
CV7–CV8 Ranges 3/4" Flaretek	223.4 mm (8.79")	129.0 mm (5.08")	24.4 mm (0.96")
1" Flaretek	223.4 mm (8.79")	133.6 mm (5.26")	24.4 mm (0.96")
1" Pillar	225.7 mm (8.88")	146.3 mm (5.76")	26.7 mm (1.05")

Ordering Information

NT Proportional Control Valve

Model Number

6300-



*14-pin mating cable required for installation.

Accessories

Part Number	Description
14G02	2 meter mating cable, 14 pin Turck to pigtail, PVC-jacketed
14G05	5 meter mating cable, 14 pin Turck to pigtail, PVC-jacketed
14G10	10 meter mating cable, 14 pin Turck to pigtail, PVC-jacketed

For More Information

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit www.entegris.com and select the Customer Service link for the center nearest you.

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