



**NT® INTEGRATED FLOW CONTROLLER,
MODEL 6520**

Precise chemical flow control



precise point-of-use chemical flow control

Overview

Entegris introduces the NT® Integrated Flow Controller model 6520, designed for chemical blending and point-of-use dispense applications. Model 6520 saves valuable space in liquid handling systems and allows toolmakers to integrate more process functionality. This IFC uses proven and reliable differential pressure flow measurement technology and advanced closed-loop process control. Visual indicators provide diagnostics for preventative maintenance, troubleshooting and alarm conditions, enabling users to maximize uptime.

- PTFE wetted surfaces for high-purity applications
- Nonmetallic components for corrosion resistance
- Integral pressure transducer for additional process information
- One percent (1%) full scale accuracy for critical dispense applications
- Compact footprint for easy field installs and OEM designs with limited space
- Fast response for accurate dispense rates
- LED status and discrete alarm output
- Analog and DeviceNet™ options available
- Easy to retrofit and upgrade existing applications

Constructed for Compatibility

The patented NT Integrated Flow Controller was developed for use in ultrapure liquid chemical applications, DI water and slurry. The NT Integrated Flow Controller also effectively controls liquids containing bubbles.

The instrument's valve seat and diaphragm are designed to minimize dead volume and fluid shear, reducing the possibility of process contamination. Featuring fluorinated materials for wetted parts, the NT Integrated Flow Controller is ideal for protecting chemical integrity. In addition, the chemical resistant nonwetted parts perform well in harsh chemical environments.

Advanced Technology

The NT Integrated Flow Controller utilizes dual PTFE valve diaphragms for fluid containment and contamination protection. Featuring the latest motorized valve and flowmeter technology, encapsulated internal electronics control all aspects of the flow controller. The unit is activated by a setpoint signal (i.e., 4–20 mA, 0–10 VDC, 0–5 VDC, DeviceNet) to maintain fluid flow at the desired setpoint.

Applications

Entegris is solving today's flow control challenges using innovative flow control technology. The NT Integrated Flow Controller combines Entegris' differential pressure based flowmeter and leading-edge control valve technology to create a closed-loop flow controller ideal for:

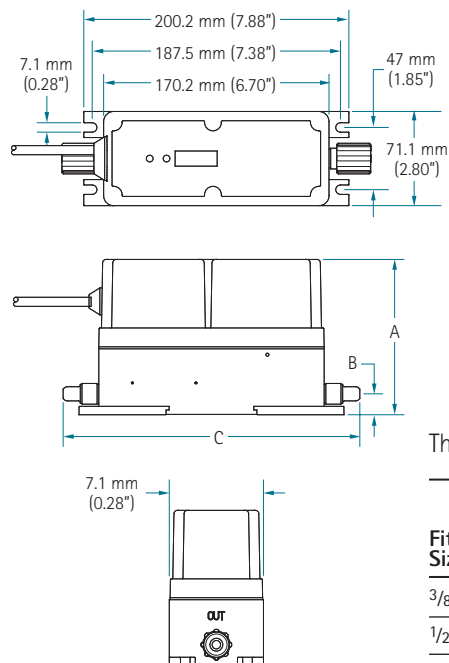
- Critical dispense applications
- Chemical spiking and blending
- On-demand chemical mixing
- Higher flow applications such as bulk delivery or tool liquid dispense

Specifications

Materials of construction:	Wetted parts	PTFE PFA or CTFE Kalrez®
	Nonwetted parts	Polypropylene, PVDF and Viton® (in addition to materials listed above)
Flow measurement:	±1% of full scale from greater than 20–100% of full scale ±2.5% of full scale from 10–20% of full scale Accuracy not specified from 0–10% of full scale (calibrated using DI water @ 23°C [73°F])	
Repeatability:	±0.5% of full scale from greater than 20–100% of full scale ±1.0% of full scale from 10–20% of full scale	
Pressure measurement:	0–414 kPa (0–60 PSIG)	
Pressure accuracy:	±1% of full scale	
Operating pressure:	69–414 kPa (10–60 PSIG)	
Output signals:	Two 4–20 mA electrically isolated outputs, one for flow and one for pressure or DeviceNet digital communication	
Response time:	<3 seconds from 10–95% of full scale flow range	
Over-pressure limit:	690 kPa (100 PSIG)	
Process temperature:	10–65°C (50–149°F)	
Electrical input:	24 VDC (±10%) @ 1.2 amps	
Setpoint input signal:	4–20 mA, 0–10 VDC, 0–5 VDC, DeviceNet	
Enclosure:	IP64	
Weight:	2.4 kg (5.3 lb) approximate	
Approvals:	CE pending	

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

Dimensions



Inlet/Outlet Port Connection	Dimensions		
	A	B	C
3/8" Flaretek®	117.3 mm (4.62")	15.7 mm (0.62")	224.0 mm (8.82")
1/2" Flaretek	120.9 mm (4.76")	18.3 mm (0.72")	228.0 mm (8.98")
3/4" Flaretek	129.0 mm (5.08")	23.6 mm (0.93")	234.2 mm (9.22")
3/8" S300 Type Pillar®	117.3 mm (4.62")	15.7 mm (0.62")	200.2 mm (7.88")
1/2" S300 Type Pillar	120.9 mm (4.76")	18.3 mm (0.72")	205.2 mm (8.08")
3/4" S300 Type Pillar	129.0 mm (5.08")	23.6 mm (0.93")	214.1 mm (8.43")

The following fitting size and flow range combinations are available:

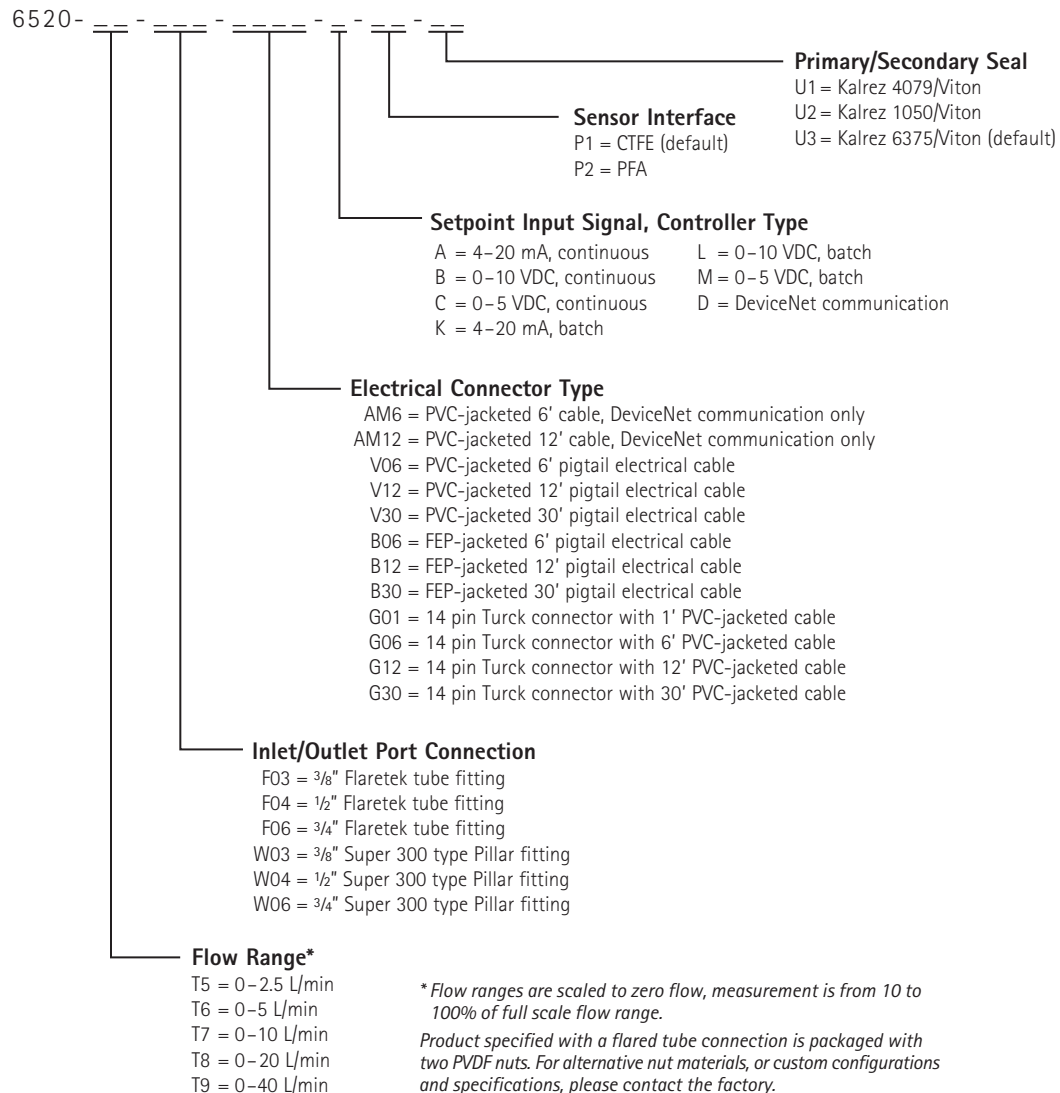
Fitting Size	Flow Range (L/min)				
	T5 0–2.5	T6 0–5	T7 0–10	T8 0–20	T9 0–40
3/8"	Yes	Yes	–	–	–
1/2"	Yes	Yes	Yes	–	–
3/4"	–	–	Yes	Yes	Yes

Please consult the factory for custom fitting sizes and flow range combinations.

Ordering Information

NT Integrated Flow Controller, Model 6520

Model Number



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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