

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Millipore / Tylan VC4900M-4V* at our website: ***Click HERE***

TN4900 Series Vapor Controllers

Designed for the demanding requirements of low vapor pressure liquid delivery

» Incorporates a large diameter sensor tube, an enlarged valve orifice, and a high stroke valve to maximize the conductance of the plumbing.
» Optional remote electronics and heater
» Balanced power load
» Autozero circuitry



Process Values

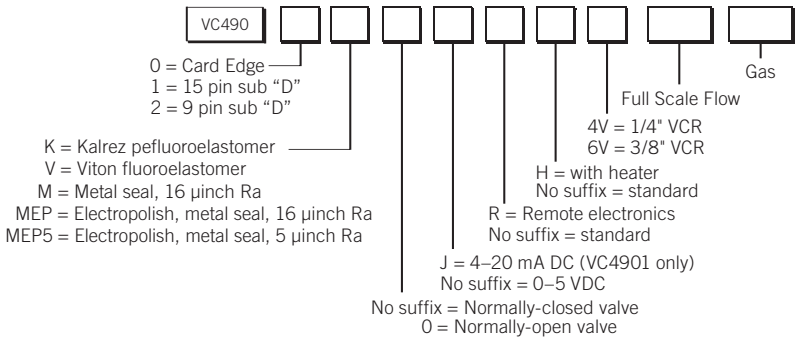
Celerity's TN4900 vapor controllers are designed specifically to meet the exacting requirements of today's semiconductor and industrial processes. The TN4900 vapor controller enables the delivery of organometallics such as tetraethoxsilane (TEOS), trimethylphosphate (TMP) and trimethylborate (TMB) with pressure drops as low as 6.75 kPa (50 Torr).

Features

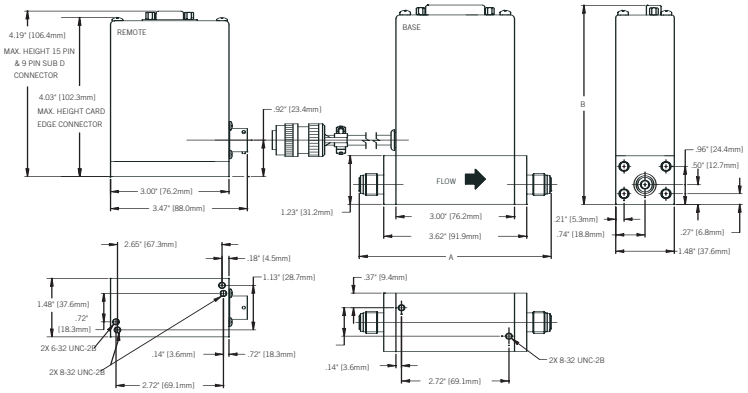
- Enables high flow rates at low pressure drops
- Allows high temperature calibration. Prevents calibration shifts due to a change in ambient temperature
- Low lead current eliminates signal differing from its controlling device
- Automatically resets to zero under no flow conditions, and shifts the entire calibration curve to cancel many effects of temperature coefficients and calibration drift

CELERITY

Product Configurations



Product Dimensions



Fitting & Size	Dim A
1/4" VCR	4.88in [124mm]
3/8" VCR	5.18in [132mm]

Connector Option On Base	Dim B Max. Height
All Units with Remote	5.05n [128.3mm]
15 Pin Sub D	5.11n [129.8mm]
Card Edge	4.92n [125.0mm]

Electrical Connection	Card Edge	15-Pin "D"	9-Pin "D"
+15 VDC	4	5	3
Common	C	10	4
–15 VDC	F	6	5
0–5 out	3	2	2
Common	2	1	7
0–5 V In	A	8	6
Common	B	9	N/A
V Ref	6	11	N/A
Press. In	5	13	9*
Az. Store	K	N/A	N/A
Az. Inhibit	J	3	N/A
Valve Test	D	12	8*
Valve Off	L	15	N/A
Override	N/A	N/A	1
4–20 mA In	N/A	7	6*
4–20 MA Out	N/A	4	2*
Case Ground	1	14	9*

*Optional

TN4900 Series Specifications

Performance

Full Scale (N2 equivalent)	10 sccm–35 slm
Turndown Ratio	20:1
Step Response Time (0 to 100%)	<1.5 sec (dependent on step response and conditions)
Accuracy	±1% full scale
Linearity	±0.5%
Repeatability	±0.2% full scale
Pressure Coefficient	Upstream Pressure .67–.133 bar (50–100 Torr) .133–.267 bar (100–200 Torr) .267–1.07 bar (200–800 Torr) % per bar (Torr) .0112 per bar (±0.150% per Torr) .0015 per bar (±0.020% per Torr) .0003 per bar (±0.004% per Torr)
Temperature Coefficient	0.05% per °C (zero and span)

Mechanical

Valve	Normally-open or normally-closed solenoid
Materials	316L stainless steel, 416 stainless steel, Teflon® fluoropolymer, Viton® fluoroelastomer
Leak Integrity	Elastomer Seals: 5 x 10^{-9} atm-cc per sec (He) inboard Metal Seals: 1 x 10^{-10} atm-cc per sec (He) inboard
Leak Through the Valve	<2% full scale
Weight	Without remote electronics, 0.9 kg (2 lbs.) With remote electronics, 1.7 kg (2 lbs.)

Electrical

Power Supply Sensitivity	<0.01 % per volt
Power Consumption	3.5 watts (typical)
Supply Voltage	±15 VDC nominal ±20%
Input/Output Signal	0–5 VDC
Supply Current 1	10 mA nominal (125 mA max @ ±18 VDC)
Input Impedance	500K ohms (minimum)
Minimum Load Impedance	2000 ohms
Option (VC4901)	4–20 mADC
Supply Current	130 mA nominal (145 mA max ±18 VDC)
Input Impedance	250 ohms
Maximum Load Impedance	250 ohms

Environmental

Operating Temperature	5–50°C (ambient and gas) 0–100°C with remote electronics
Humidity	0–95% relative humidity, non-condensing
Maximum Operating Pressure	11.5 bar (150 psig)
Inlet/Outlet Pressures and Operating Temperatures	Must be specified by customer at time of order.

Note: In accordance with SEMI Standard E12-91, Standard Temperature is 0°C and Standard Pressure is 760 mm Hg (14.7 psia).

CELERITY

CELERITY, INC.
915 Enterprise Boulevard
Allen, TX 75013 USA
Telephone 972.359.4000
Facsimile 972.359.4100
www.celerity.net

For technical assistance, contact Celerity Technical Support at 972.359.4000.

Celerity is a trademark of Celerity, Inc. All other product or service names mentioned in this document may be trademarks of the companies with which they are associated. System descriptions are typical and subject to change without notice.

©2006 Celerity, Inc.

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP