

Two Stage Regulators

Recommended for applications that require a constant delivery pressure over a range of decreasing inlet pressures. This precise two stage regulator provides superior operating characteristics for applications where change in delivery pressure would affect performance characteristics of work or test results.



Typical Two Stage Design VTS 450 Series Shown
2.5" (63.5 mm) Brass Gauges External Relief Valve System

- 1 Brass Adjusting Screw with forged T-handle (VTS 700 only)
- 2 Delrin Insert Bushing for durability, easier adjusting
- 3 Die-Forged Brass Spring Housing Cap provides greater strength and durability
- 4 Stainless Steel Diaphragm gives accurate long lasting service
- 5 Stem-Type Seat Mechanism inlet pressure aids in sealing
- 6 Stainless Ball in Key for easy adjustment
- 7 Adjusting Spring pretested for quality assurance
- 8 Die-Forged Brass Body for extra strength
- 9 Precision Machined Nozzle for optimum flow control
- 10 Adjusting Spring designed for precise preset

Additional Features

- External self reseating relief valve. Not designed to protect downstream equipment (no relief valve is needed on low pressure fuel gas models)
- Sintered inlet filter, electroless nickel plated bronze
- Regulators will deliver at least the stated upper range and in some cases may exceed the stated upper range

VTS 700

Extra Heavy Duty, Two-Stage, High Flow

DESIGN/CONSTRUCTION

- 2.5" (63.5 mm) gauges – steel
- Diaphragms – 2" (50.8 mm) and 3.25" (82.6 mm) – stainless steel

DIMENSIONS

6.75" W x 7.5" H x 8.63" D
(171.5 mm x 190.5 mm x 219.1 mm)

WEIGHT

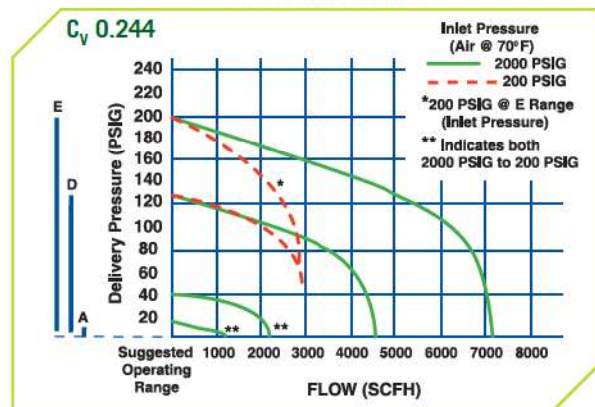
8 lb 8 oz (3.86 kg)

PERFORMANCE

Maximum inlet – 3000 psig



VTS 700 FLOW DATA



Gas Service	Part No.	Model No.	Delivery Range (psig)
Oxygen,	0780-0928	VTS 700D-580	5-125
Inert Gas	0780-0939	VTS 700E-540	10-200
	0780-0943	VTS 700E-580	10-200
Acetylene	0780-0984	VTS 710A-510	2-15

Outlet Connections: 7/8"-14(M)

ETS4 Series

High Capacity, Two-Stage Design

Compact two-stage performance in a single-stage footprint

DESIGN/CONSTRUCTION

- Forged brass body
- Zinc-aluminum housing caps
- High impact ABS gauge guard
- 1.5" UL listed/recognized Gauges – brass
- Stem type seat mechanism: urethane seat material – air, oxygen, inerts, CO₂, N₂O, other high pressure gases; neoprene seat material – low pressure fuel gases
- 2.7" fabric reinforced neoprene diaphragm in 2nd stage, 0.75" diameter brass piston in 1st stage
- External self reseating relief valve. Not designed to protect downstream equipment (no relief valve is needed on low pressure fuel gas models)
- Sintered inlet filter – nickel plated bronze
- SLAM™ impact absorbing safety knob
- Meets or exceeds CGA E-4, UL 252 and ASTM G-175 Promoted Ignition Test



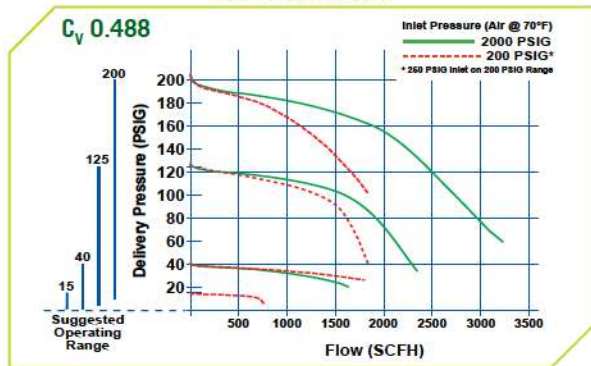
DIMENSIONS

6.85" W x 4.4" H x 4.72" D (174.0 mm x 111.8 mm x 119.9 mm)

WEIGHT

4 lb 12 oz (2.15 kg)

ETS4 FLOW DATA



Gas Service	Part No.	Model No.	Delivery Range (psig)
Air, Oxygen, Inert Gas	0781-5231	ETS4-125-346	5-125
	0781-5232	ETS4-200-346	10-200
	0781-5217	ETS4-40-540	2-40
	0781-5218	ETS4-125-540	5-125
	0781-5219	ETS4-200-540	10-200
	0781-5221	ETS4-40-580	20-40
	0781-5222	ETS4-125-580	5-125
Industrial Air	0781-5223	ETS4-200-580	10-200
	0781-5224	ETS4-125-590	5-125
British Oxygen/Fuel	0785-2120	ETS4-125-992	5-125
	0785-2121	ETS4-200-992	10-200
	0785-2122	ETS4-15-993	2-15
Hydrogen/Methane	0781-5225	ETS4-40-350	2-40
	0781-5226	ETS4-125-350	5-125
Carbon Dioxide	0781-5227	ETS4-200-350	10-200
	0781-5228	ETS4-125-320	5-125
Acetylene	0781-5229	ETS4-15-300	2-15
	0781-5230	ETS4-15-510	2-15

GT350

Heavy Duty, Two-Stage Design

DESIGN/CONSTRUCTION

- 2" (50.8 mm) gauges – steel
- Diaphragm – 1.33" (33.8 mm) first stage, 2.69" (68.3 mm) second stage fabric reinforced neoprene

DIMENSIONS

6.79" W x 5.31" H x 6.80" D (172.5 mm x 134.9 mm x 172.7 mm)

WEIGHT

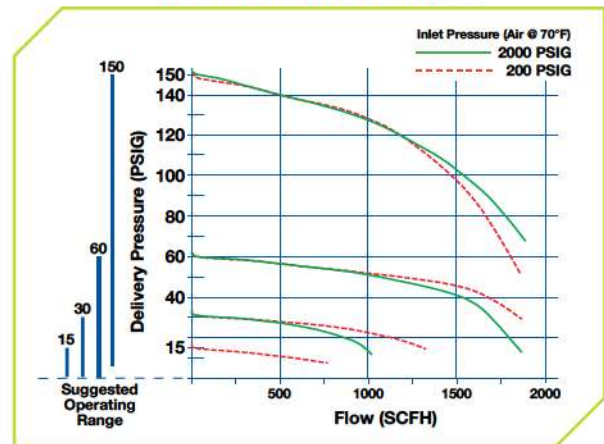
3 lb 12 oz (1.70 kg)

PERFORMANCE

Maximum inlet – 3000 psig



GT350 TWO STAGE FLOW DATA



Gas Service	Part No.	Model No.	Delivery Range (psig)
Air, Oxygen, Inert Gas	0781-4255	GT350-150-346	5-150
	0781-4260	GT350-60-540	2-60
	0781-4261	GT350-150-540	5-150
	0781-4263	GT350-30-580	2-30
	0781-4264	GT350-60-580	2-60
	0781-4265	GT350-150-580	5-150
British Oxygen/Fuel	0781-4269	GT350-150-992	5-150
	0781-4270	GT350-15-993	2-15
Hydrogen/Methane	0781-4256	GT350-60-350	2-60
	0781-4257	GT350-150-350	5-150
Carbon Dioxide	0781-4253	GT350-60-320	2-60
	0781-4254	GT350-150-320	5-150
Acetylene	0781-4252	GT350-15-300	2-15
	0781-4258	GT350-15-510	2-15
L.P. Gas	0781-4259	GT350-60-510LP	2-60