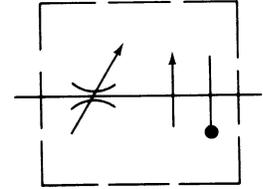


Manatrol Series TPC Temperature and Pressure Compensated Flow Control Valves



Series TPC valves are pressure compensated and are insensitive to variations in oil temperature. They can maintain selected flow to within $\pm 5\%$ of setting over a pressure range from 100 to 3000 psi (7 to 210 Bar).

These valves are ideal for use on meter-in/meter-out or bleed-off circuits. Their insensitivity to oil temperature change allows flow to hold constant throughout wide fluctuations. Minimum pressure differential between inlet and outlet ports must be 100 psi (7 Bar) for Model TPC600, and 150 psi (10.5 Bar) for Model TPC1200.

Optional reverse-flow check valves are available on Models TPCC600 and TPCC1200; check-valve cracking pressure is 5 psi (0.4 Bar).

Optional lunge control to limit compensator piston travel is available on Model TPC600; this prepositions the compensator piston to minimize actuator lunge.

Maximum operating pressure, all models: 3000 psi (210 Bar).



Quick Reference Data Chart

Valve Model	Flow (max.) GPM (L/M)	Reverse Flow (max.) (thru check) GPM (L/M)	Pressure Drop ΔP at max. (reverse flow thru check) PSI (Bar)	Mounting	Port Size, in.
TPC600	6(23)	12 (45)	40 (3)	In-line	3/8 NPTF
TPCS600	6 (23)	—	—	Subplate	3/8
TPC1200	25 (95)	35 (133)	40 (3)	In-line	3/4 NPTF

Needle Flow Chart

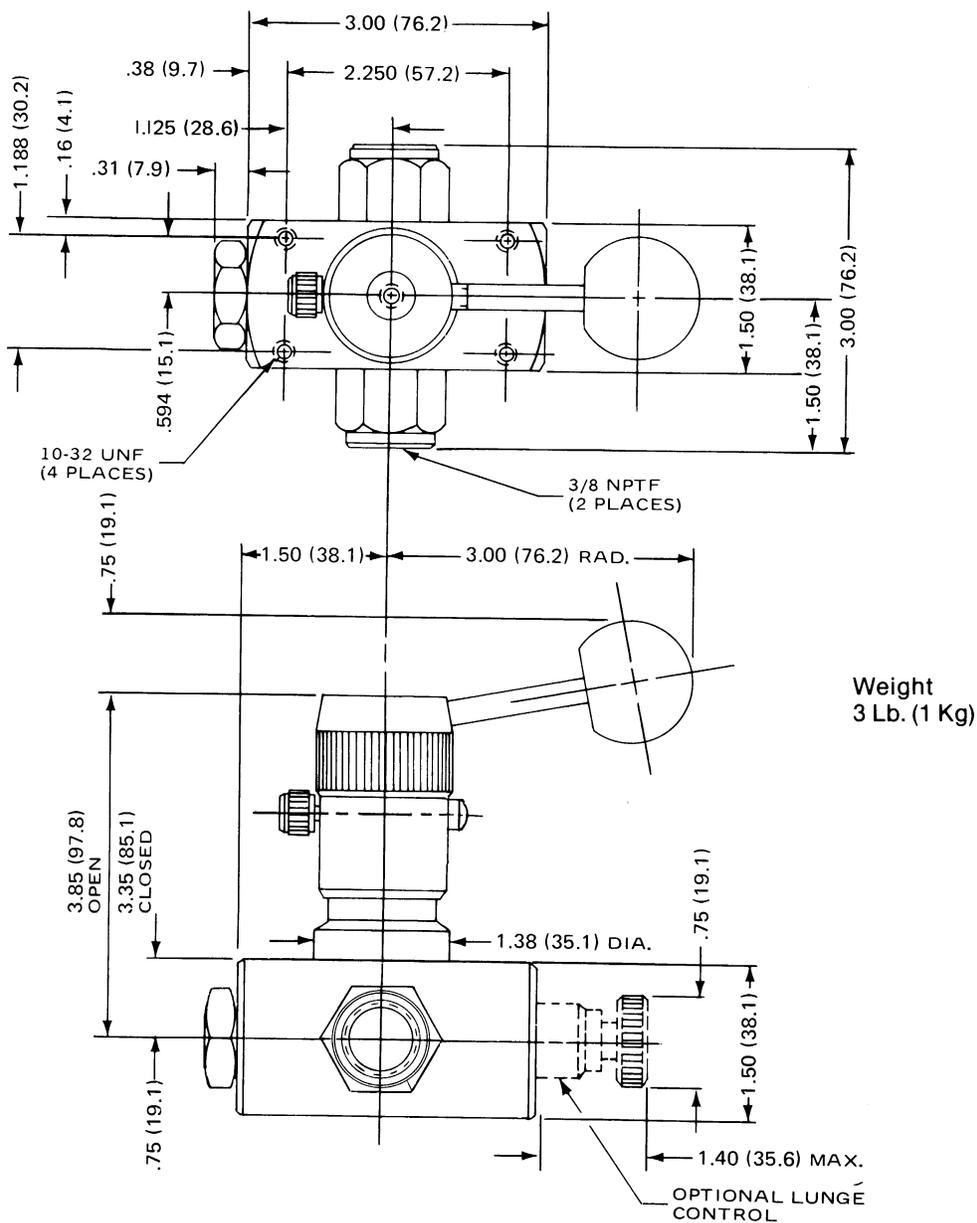
FLOW RANGES — TPC600			TEMPERATURE COMPENSATION RANGE (For an 80-220 SSU viscosity change)	
Needle Number	Min. Flow	Max. Flow	Flow Range	% Flow Variation
01	5 CIPM (81.96 CC/M)	25 CIPM (410 CC/M)	5-25 CIPM (82-410 CC/M)	$\pm 5\%$
02	5 CIPM (81.96 CC/M)	50 CIPM (820 CC/M)	5-50 CIPM (82-820 CC/M)	$\pm 5\%$
06	5 CIPM (81.96 CC/M)	140 CIPM (2300 CC/M)	5-139 CIPM (82-2279 CC/M) 51-140 CIPM (836-2295 CC/M)	$\pm 5\%$ $\pm 3\%$
3	0.06 GPM (.22 L/M)	3 GPM (12 L/M)	0.1-1.0 GPM (.4-4 L/M) 1.0-3.0 GPM (4-8 L/M)	$\pm 5\%$ $\pm 3\%$
6	0.12 GPM (.45 L/M)	6 GPM (23 L/M)	0.1-1.9 GPM (.4-8 L/M) 2.0-4.0 GPM (8-15 L/M) 4.0-6.0 GPM (8-23 L/M)	$\pm 5\%$ $\pm 4\%$ $\pm 3\%$
TPC1200				
28	0.1 GPM (.4 L/M)	25 GPM (95 L/M)	1.0-3.0 GPM (.4-8 L/M) 3.0-8.0 GPM (8-30 L/M) 8.0-25 GPM (30-95 L/M)	$\pm 7\%$ $\pm 5\%$ $\pm 3\%$

repcat-k.p65, dd, fn

Dimensions

Model TPC600S

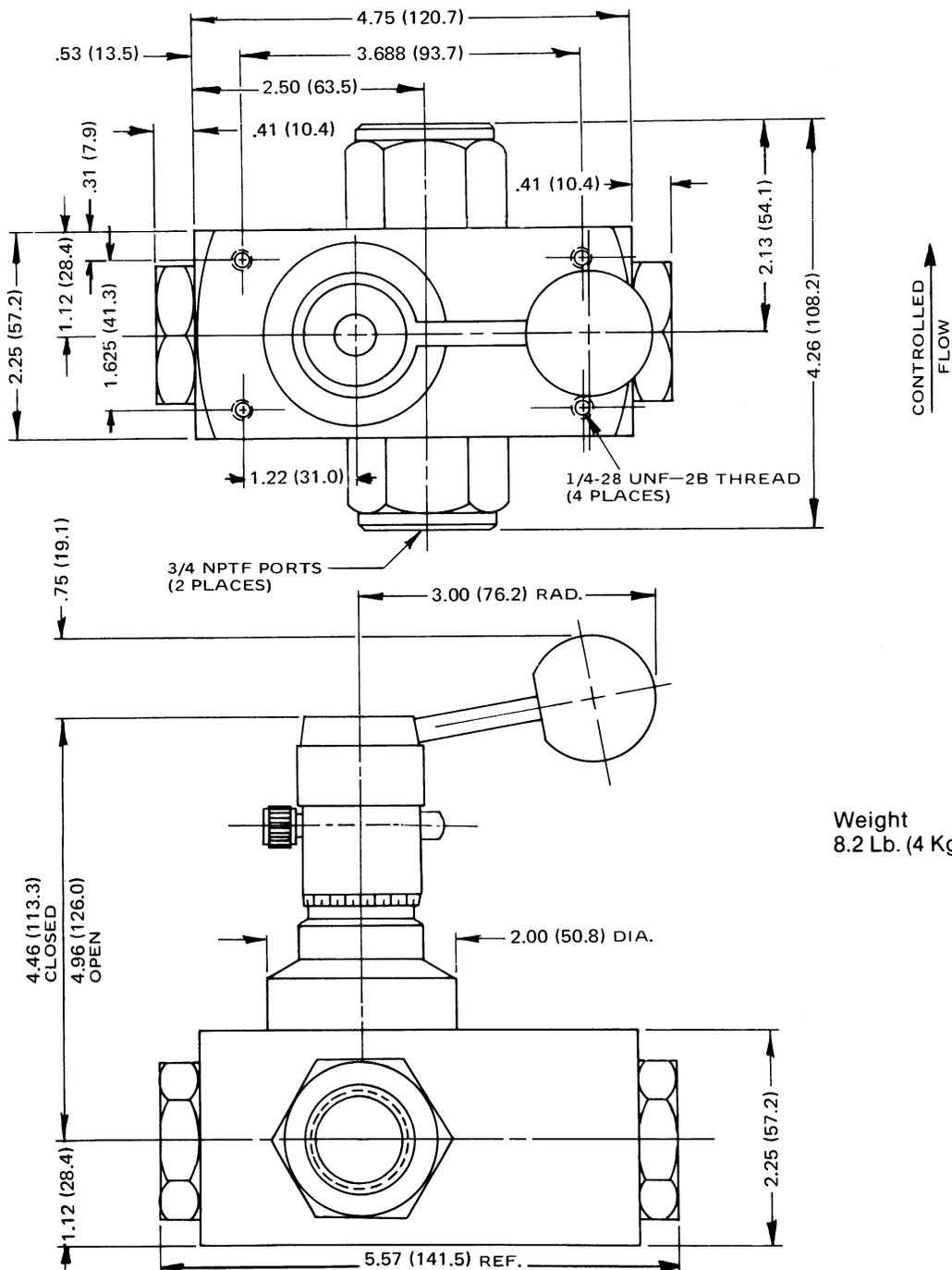
In-line mounted, pressure-compensated,
temperature-insensitive flow control valve



Dimensions

Model TPC1200S28

In-line mounted, pressure-compensated,
temperature-insensitive flow control valve.



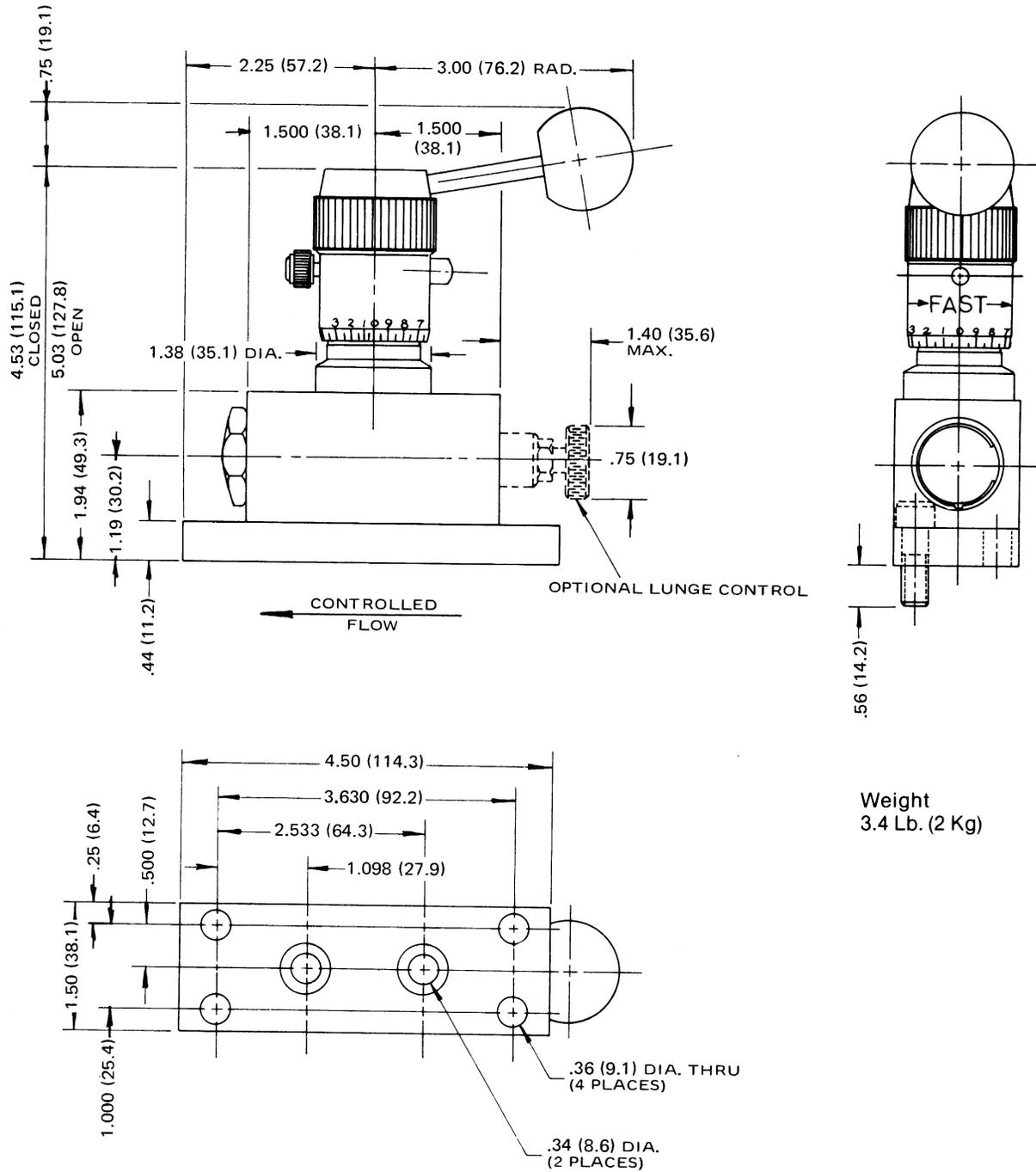
Weight
8.2 Lb. (4 Kg)

K

Dimensions

Model TPCS600S

Manifold-mounted, pressure-compensated, temperature-insensitive flow control valve.



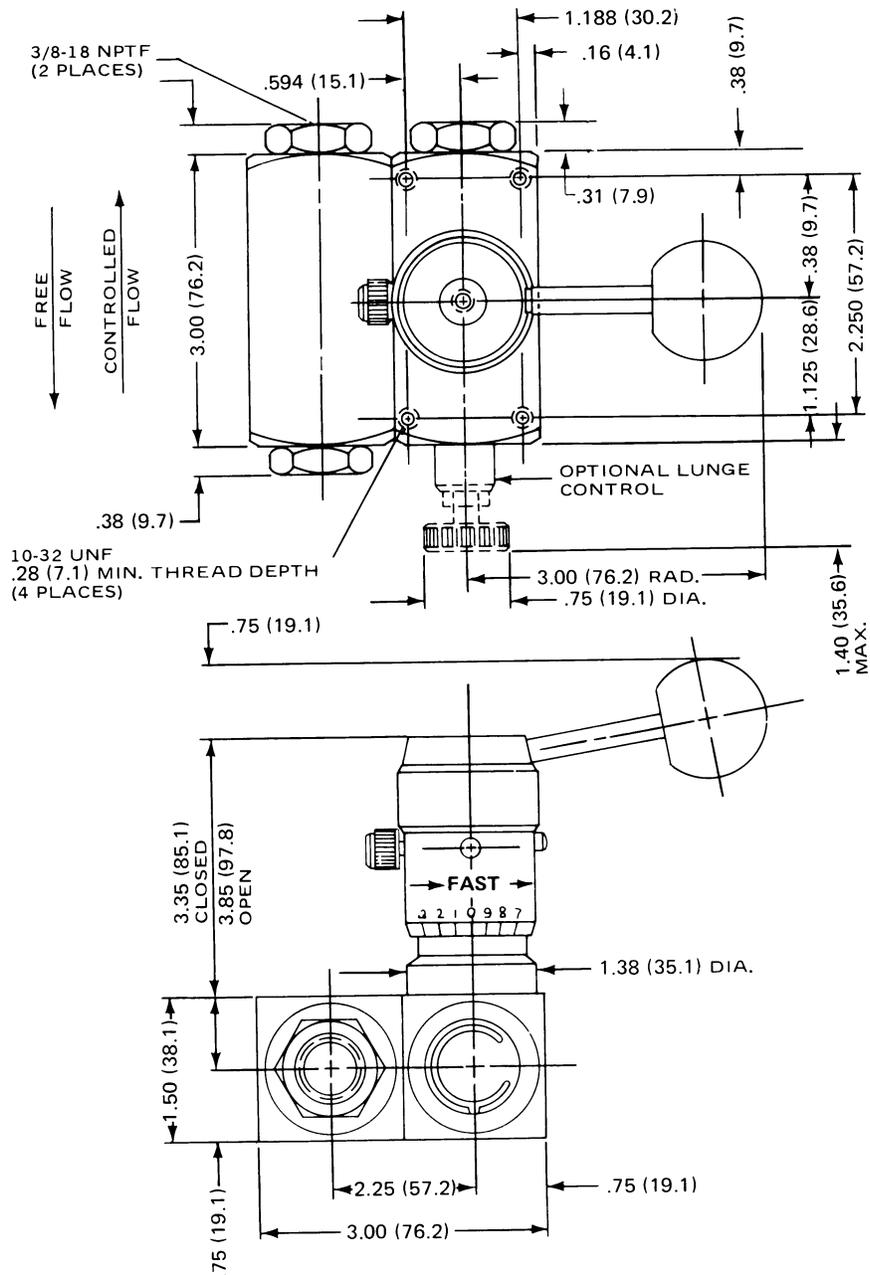
Weight
3.4 Lb. (2 Kg)



Dimensions

Model TPCC600S

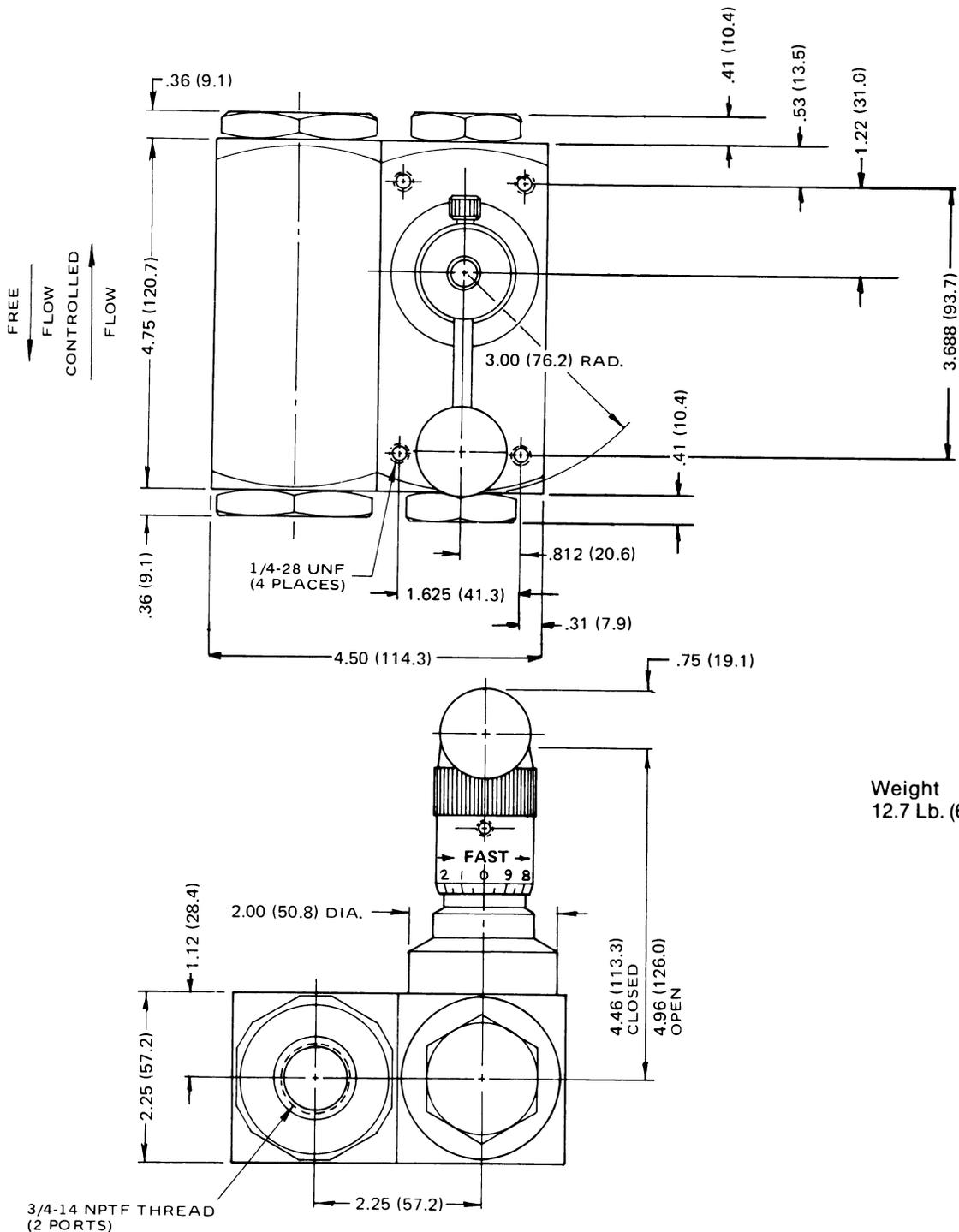
In-line mounted, pressure-compensated, temperature-insensitive flow control valve with check.



Dimensions

Model TPCC1200S-28

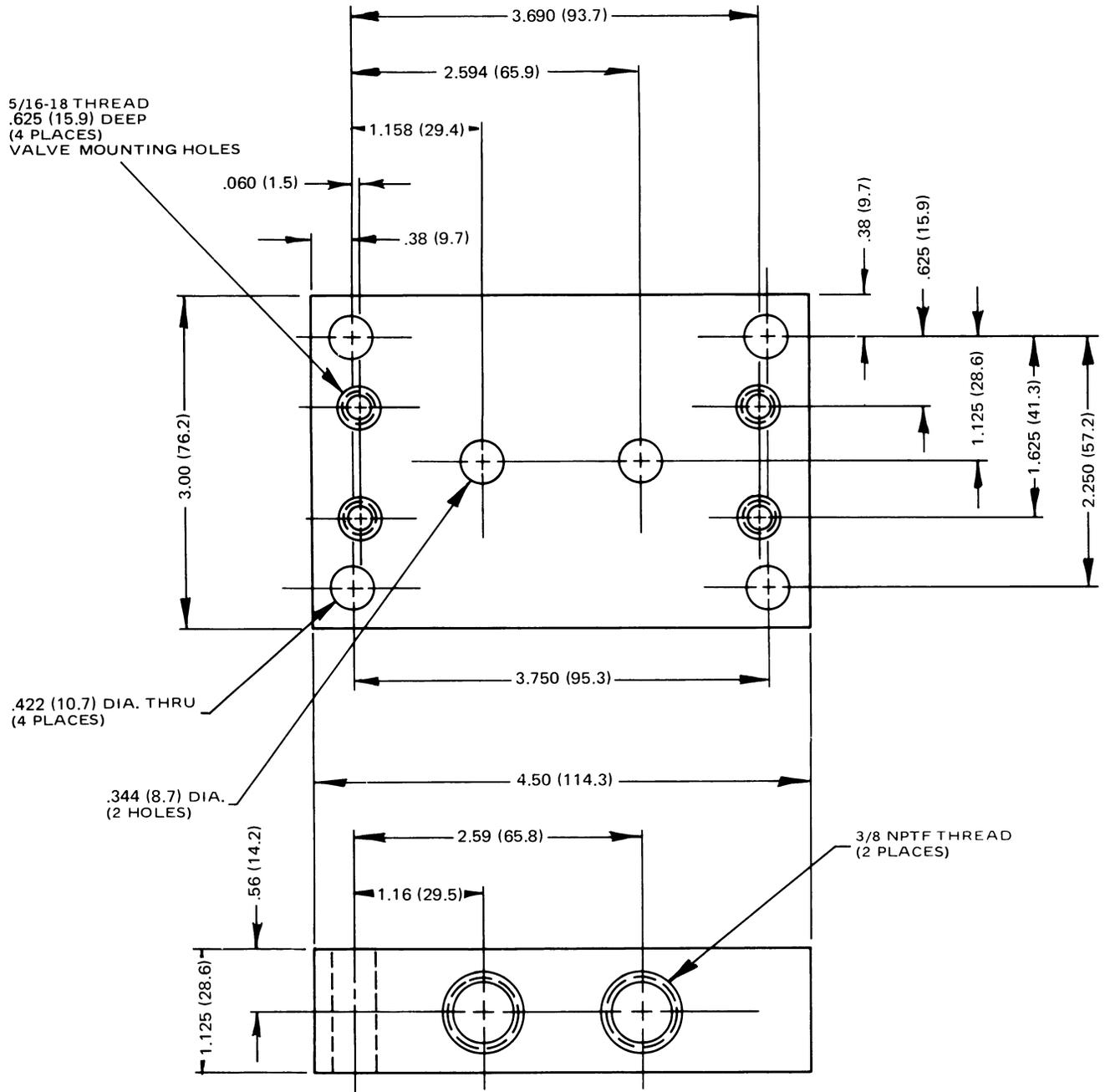
In-line mounted, pressure-compensated, temperature-insensitive flow control valve.



Subplate Dimensions

Use bolt kit BK-07 for mounting series TPCS600S valve on this subplate

Reference Data Only
(Subplates are not available)

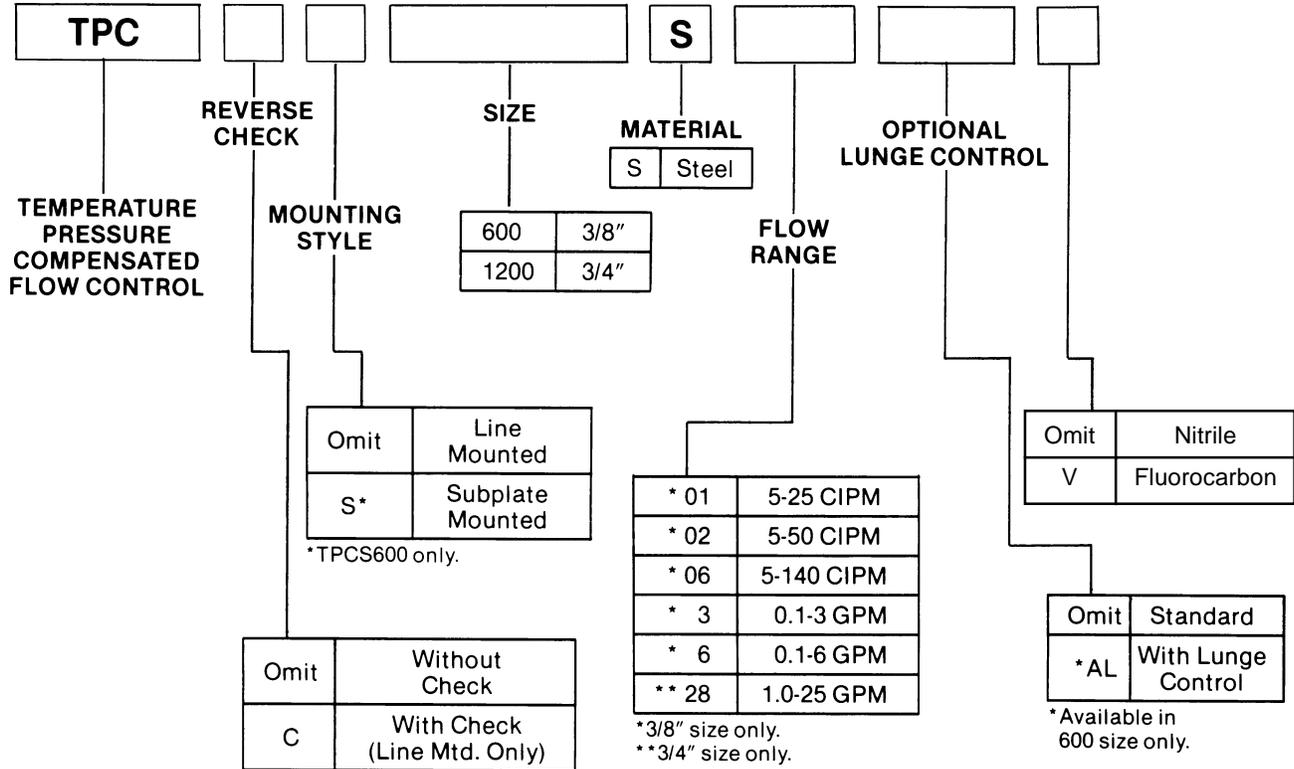


Ordering Information

How to order Series TPC

Flow Control Valves

Example: "TPCC600S02ALV" means Series TPC Valve, with reverse-flow check valve, in-line mounting size 3/8", flow range of 5 to 50 CIPM, lunge control option, Fluorocarbon seals.



NOTE: See Needle Flow Chart in Engineering Performance section for flow information.

Accessories

Bolt Kits

TPCS600	Bolt Kit No. BK07	Bolt specification 5/16" - 18 x 1"	Bolt torque 19 ft. lb.
---------	-------------------	------------------------------------	------------------------

