

## 2180 SERIES

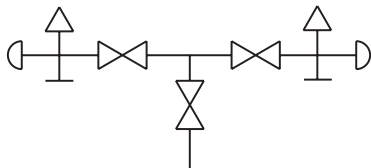
- Designed for use with chart recorders
- 100% helium leak tested to  $1 \times 10^{-4}$  ml/s for performance and reliability
- Replaceable Acetal seat and straight through porting for bidirectional, high capacity flow and easy roddable cleaning
- Blow-out proof stem provides a secondary stem seal in the full open position
- FKM o-ring seal and PTFE back-up ring below the stem threads to protect from corrosion and galling; PTFE packing optional
- All stem threads are rolled for strength and ease of operation
- One-piece bonnet with a metal-to-metal seal to the valve body below the bonnet threads
- Slotted spring pin to prevent accidental loosening
- Vinyl dust caps for bonnets and stems (non-packing)

### Flow Schematics

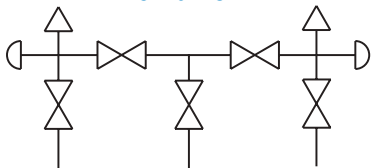
#### 2-Valve



#### 3-Valve



#### 5-Valve



### SPECIFICATIONS

<b>Materials</b>	Zinc-Nickel plated Steel, electropolished 316 Stainless Steel*
<b>Connection</b>	1/4" NPT
<b>Pressure rating</b>	6,000 psi @ 200 °F
<b>Orifice size</b>	0.187"
<b>Flow coefficient</b>	$C_v$ 0.76
<b>Stem seal &amp; type</b>	All 316 Stainless Steel stems with FKM o-ring and PTFE back-up ring below the threads, PTFE packing optional
<b>Options</b>	Panel mountings, o-ring materials, handles, packings, regulating stem and stem tips
<b>Weight</b>	Approximately 4.8 lb. (2-valve model)

\* All 316SS products meet the requirements of NACE MR0175/ISO 15156-3.

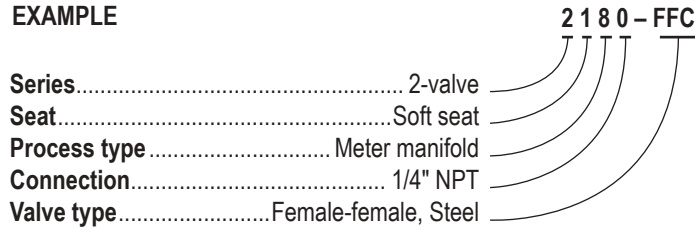
**WARNING:** This product can expose you to chemicals including Lead and Nickel, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**NOTE:** All NOSHOK valve products conform to the MSS SP-99 instrument valves standards, and valves supplied with packing also conform to MSS SP-132 compression packing systems for instrument valves standard.

ORDERING INFORMATION			
SERIES	2 2-valve	3 3-valve	5 5-valve
SEAT	1 Soft seat		
PROCESS TYPE	8 Meter manifold		
CONNECTION	0 1/4" NPT		
VALVE TYPES	FFC Female-Female, Steel	FFS Female-Female, Stainless Steel	

Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

**EXAMPLE**



To meet all of your specific application requirements, the following **additional options** are available for these manifold valves. To order all or any of these options, simply add them to the part number as shown in the diagram below.

**NOTE 1:** The example shown includes ALL possible additional options. Please include ONLY the options required for your application when building your part number. (EXAMPLE: 2180-FFC-P1)

**NOTE 2:** When a packing option is selected, an o-ring option is NOT available.

**NOTE 3:** The standard o-ring in all the NOSHOK manifold valves is FKM.

ORDERING INFORMATION - ADDITIONAL OPTIONS			
PACKINGS	P1 PTFE		
STEM TIP	T1 Non-rotating (316 Stainless)		
O-RINGS*	EM1 EPDM	KZ1 FFKM (Perfluoroelastomer)	NB1 NBR
HANDLES	HL3 1" Round knurled	HL4 1-3/8" Phenolic	HL5 1-3/4" Phenolic

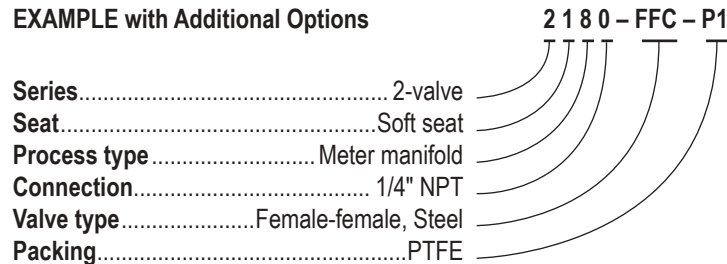
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\* Other o-ring materials available on request.

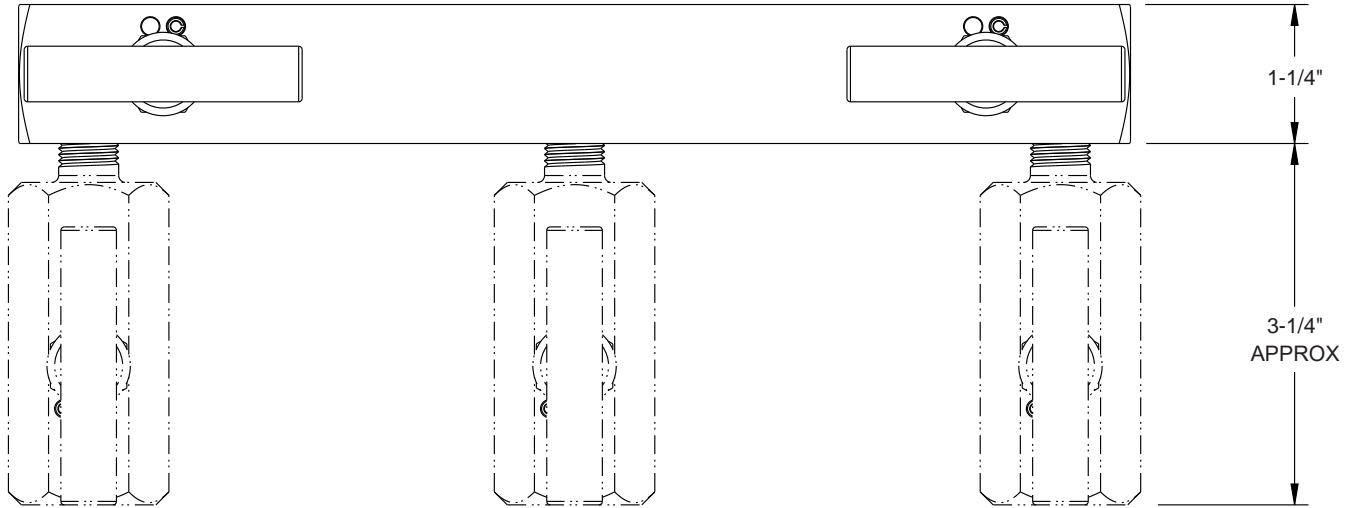
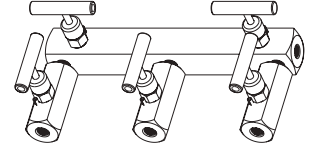
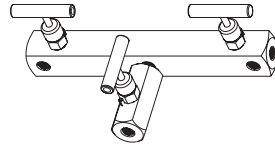
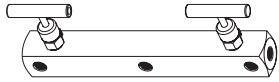
Please note that the standard o-ring in all the NOSHOK valves is FKM and the standard handles are "T" handles (HL2).

The handle material will always match the material of the valve, unless otherwise specified. For example, the "T" handle (HL2) on the 2180-FFC will be Steel. When only the standard configuration is needed, no additional designations are necessary. Please consult the factory for special application requests.

**EXAMPLE with Additional Options**



## Female-Female



BLOCK VALVE

BLEED VALVE

BLOCK VALVE

