



## Type K-230 & KR-230 Series

**2-Way • Investment Cast CF8M Stainless Steel Bodies • Packless  
Velvetrol® Internal Piston Pilot Operated  
Safety Solenoid Valves for Hazardous Locations  
Normally Closed or Normally Open**

**For:** Gasoline, Diesel Fuel, #1 and #2 Fuel Oils – Class 1 Div 2 Group D, Class 2 Group E, F, G. NEMA 7 Explosion Proof. Also meets NEMA 4 Watertight & NEMA 5 Dust Tight.

**Pressures:** 5psi minimum to 150psi maximum | Full Port

**Temperature:** -40°F to 300°F | Class F Coil

**Mounting:** Install in horizontal line with coil upright and on top (unless ordered with -76 vertical mounting option)

**Pipe Sizes:** 1/8" – 2" NPT • Full Port

**Normally Closed or Normally Open**

<b>Service Ratings</b>	Complete pricing, service & electrical ratings are shown on the List Price Schedule. Valves will be furnished for 5-150 PSI and 120 VAC unless otherwise specified.	
<b>Normally Closed</b>		<b>Normally Open</b>
<b>K-230</b>	Gasoline, Diesel Fuel, #1 and #2 Fuel Oils 5-150psi 300°F Max. Fluid Temp, Class F Coils 12, 24, 120, 240, 480 VAC 60 Hz, 20 Watts Max. 12, 24, 48, 115, 230 VDC	<b>KR-230</b>
<b>Add: -81, -84</b>	-81 Factory Slow Close Option (Reduces Water Hammer) -84 Factory Quick Close Option	<b>Add: -81, -84</b>
<b>Add: -76</b>	Spring Loaded Pilot for vertical mounting. Limitations apply. Consult factory.	<b>Add: -76</b>

**Construction:**

- **Class F Coils** are waterproof, corrosive resistant, molded or filled polyester with 18" lead wires, inside a cast iron NEMA 7 coil housing with a 1/2" NPT conduit connector.
- **Bodies** are Investment Cast in CF8M Stainless Steel, rated to 1000 PSI and cast in bronze.
- **Bonnet Assemblies** are 304 SS tubes welded into a 303 SS or CF8M SS bonnet with a 303 SS tube plug.
- **Piston Assemblies** are 303 SS, 316 SS, or CF8M with filled PTFE piston rings and 316 SS expanders.
- **Seat Discs** are Viton®.
- **Pilot Assemblies** are 430FR SS Armature with a 316 SS pilot point and 316 SS pins.
- **Piston springs** are 316 SS or 302 SS.
- 1/8"-1" **Globe Style body** with union bonnet.
- 1-1/4"-2" **Globe Style body** with bolt-down bonnet.

**Specials:**

- Slow Close (-81) or Quick Close (-84) factory settings available at no charge.
- Spring-loaded pilot (-76) for vertical mounting available. Limitations apply. Consult factory.
- Teflon™ coated pistons & other special assemblies available.
- Non-standard coils available with voltage, wattage, and lead wire length to your specifications.

**Performance, Ordering, and Installation Guide**

**Ordering Data:** Specify the pipe size, type, fluid, operating pressure, temperature range, electrical specifications, and backpressure (if any).

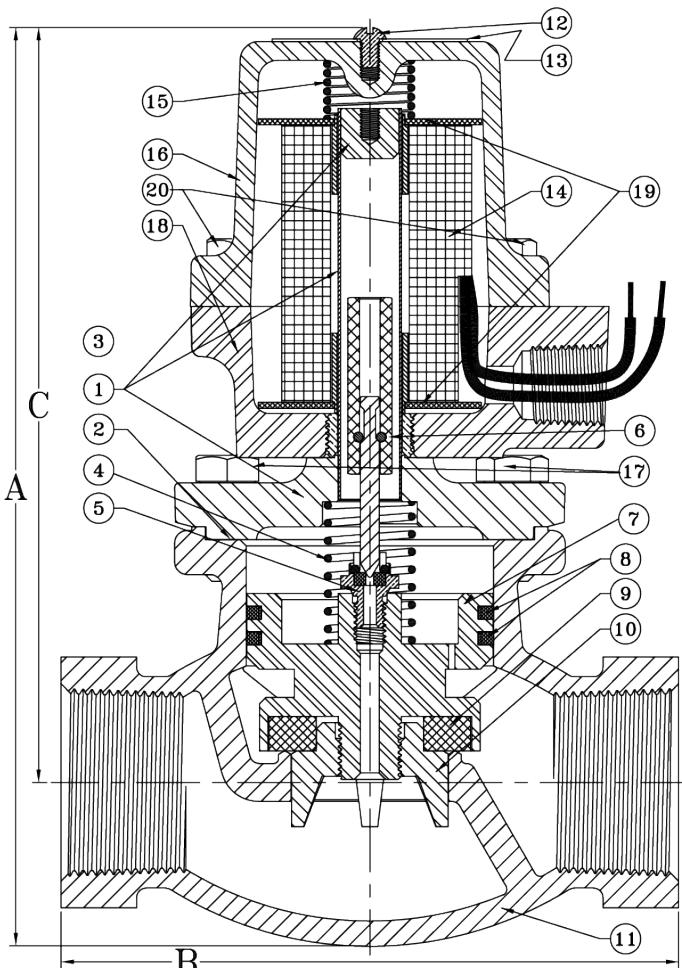
**Flow Characteristics:** See flow curves in Bulletin 5-FL, or Cv Factors listed below and in Bulletin CP-1

**Operation:** Piston pilot operated, minimum pressure drop of 5psi ( $\Delta P$ ), is required across valve for operation.

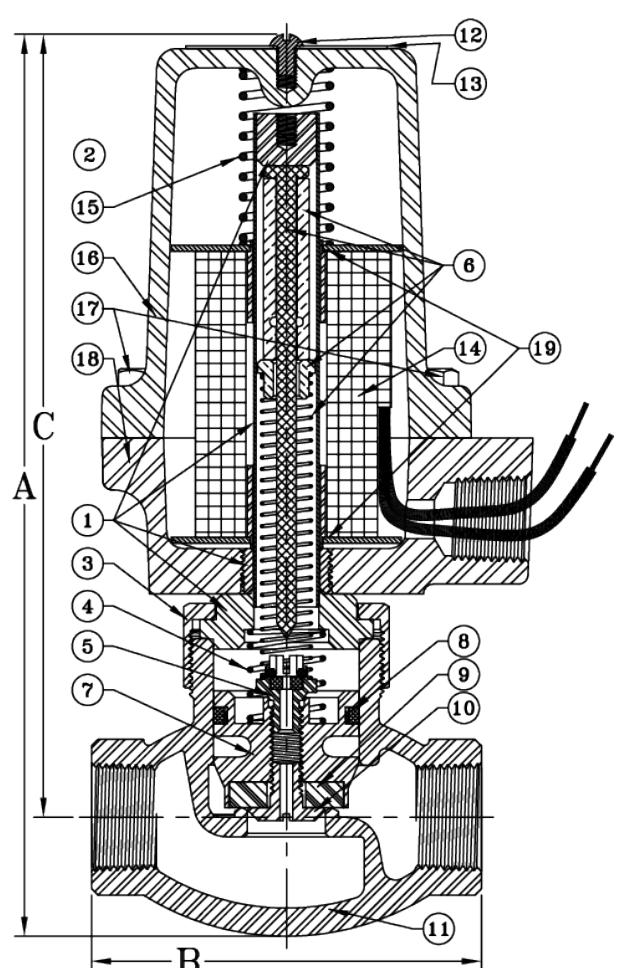
**Mounting:** Mount in horizontal line with coil vertical ( $\pm 7^\circ$ ) and on top (unless ordered with -76 spring loaded pilot for vertical mounting). Install 40 mesh strainer (not larger) ahead of the valve. Check for proper coil voltage. Make sure that the flow arrow on the valve body is pointing in the direction of flow.

**Servicing:** Solenoid valves should be frequently checked for operation, cleanliness, and internal wear. Repair Kits are factory available – be sure to specify size, type, serial number or operating data, voltage, pressure, etc.)

Valve Size	Cv Factor	Valve Dimensions							
		Normally Closed			Normally Open				
		A	B	C	Weight (lbs.)	A	B	C	Weight (lbs.)
1/8"	1.1	6.56	2.63	5.88	7	7.69	2.63	7.00	8
1/4"	2.1	6.56	2.63	5.88	7	7.69	2.63	7.00	8
3/8"	3.2	6.56	2.63	5.88	7	7.69	2.63	7.00	8
1/2"	3.9	7.30	3.13	6.44	7	8.41	3.13	7.54	8
3/4"	7.5	7.56	3.75	6.44	8	8.68	3.75	7.54	10
1"	9.9	8.00	4.16	6.75	9	9.10	4.16	7.85	11
1-1/4"	23.0	9.10	6.13	7.50	11	10.22	6.13	8.60	14
1-1/2"	25.0	9.10	6.13	7.50	13	10.22	6.13	8.60	16
2"	45.0	9.92	6.45	7.94	21	11.04	6.45	9.05	23



**1-1/2" K-230**



**3/4" KR-230**

Parts Details	
1	Bonnet Assembly
2	Bonnet Seal (N/A 1/8"-1")
3	Bonnet Seal (N/A 1-1/4"-2")
4	Piston Spring
5	Seat Screw
6	Pilot Valve
7	Piston
8	Piston Ring & Expander
9	Seat Disc
10	Disc Screw or Guide Nut
11	Body
12	Coil Screw
13	Name Plate
14	Coil
15	Coil Spring
16	XP Cover
17	Body Bolts & Washers (x4)
18	Base
19	End Plates
20	XP Housing Bolts and Washers (x4)

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14	Coil
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16	XP Cover
17	Body Bolts & Washers (x4)
18	Base
19	End Plates