

GOLD RING Series 22, 23, 24, 26 Two-Way Pilot-Operated Valves

SPECIFICATIONS

Mechanical Characteristics

Standard Materials of Construction

- Body-Brass, Bronze, 316 Stainless Steel as listed
- Seals-NBR
- Plunger and Pole Piece-430FR Stainless Steel
- Plunger Tube-305 Stainless Steel
- Springs-302 Stainless Steel
- Shading Coil-Copper(Brass Bodies), Silver(Stainless Steel Bodies)
- Disc Holder (Normally Open Valves)-Ryton
- Retaining Ring (Series 26)-PH15-7 Stainless Steel
- Seals (Series 26)-Fluorelastomer and TFE

Compatible Fluids

- Gases, Fluid, Light Oils and other clean flowing media compatible with brass or stainless steel

Electrical Characteristics

Voltages

- DC-6, 12, 24, 120, 125 (other voltages available upon request)
- AC-24/60, 110/120-50/60, 220/240-50/60, 440/480-50/60

Coil

- Class F Standard, Class H Available

Agency Approvals

- Standard valves with general purpose or explosion proof solenoid enclosures are UL Listed and CSA Certified. For details, consult factory.

Miscellaneous

Temperature Ratings (media as listed)

- AC Voltages: 180°F max.
- DC Voltages: 180°F max.
- Ambient: 32-77°F (standard)
- For temperature variations, consult the factory.

Installation

- Valves should be mounted vertical and upright. See mounting dimensions (nominal) shown here. For certified dimensions, consult factory.

Applications

- Used in a variety of applications including: Automated Systems, Dispensing Systems, Instrumentation, Welding Equipment, Restaurant Equipment, Food Processing Machinery, Water Treatment Systems and Laundry Equipment.

PILOTED BRASS VALVES-NORMALLY CLOSED (ENERGIZE TO OPEN), NBR SEALS

AC VALVE SPECIFICATIONS

NPT Pipe Size	Orifice Diameter		Flow Factor		Operating Pressure Differential								Max. Temp.		AC Watt	Const. Ref.	Valve Part Number
	inch	mm	Cv	Kv	Min. (PSI/Bar)	Max. (MOPD)						°F	°C				
						Air, Inert Gas (PSI/Bar)		Water (PSI/Bar)		Light Oil 300SSU (PSI/Bar)							
3/8	5/8	15.88	3.00	2.59	0	0.00	150	10.34	150	10.34	150	10.34	180	82	11.0	23	06F23C2140ACF
3/8	5/8	15.88	3.00	2.59	5	0.34	200	13.79	135	9.31	135	9.31	180	82	6.0	22	06F22C2140AAF
3/8	5/8	15.88	3.00	2.59	5	0.34	300	20.69	300	20.69	300	20.69	175	79	16.0	23	06F22C2140ADF
1/2	5/8	15.88	4.00	3.45	0	0.00	150	10.34	150	10.34	150	10.34	180	82	11.0	23	08F23C2140ACF
1/2	5/8	15.88	4.00	3.45	5	0.34	200	13.79	135	9.31	135	9.31	180	82	6.0	22	08F22C2140AAF
1/2	5/8	15.88	4.00	3.45	5	0.34	300	20.69	300	20.69	300	20.69	175	79	16.0	23	08F22C2140ADF
3/4	3/4	19.05	5.00	4.31	0	0.00	150	10.34	150	10.34	150	10.34	180	82	11.0	25	12F23C2148ACF
3/4	3/4	19.05	5.00	4.31	5	0.34	200	13.79	135	9.31	135	9.31	180	82	6.0	24	12F22C2148AAF
3/4	3/4	19.05	6.50	5.60	5	0.34	250	17.24	150	10.34	100	6.90	180	82	6.0	26	12F24C2148AAF
1	1	25.40	13.00	11.21	5	0.34	150	10.34	125	8.62	100	6.90	180	82	6.0	28	16F24C2164AAF
1 1/4	1 1/8	28.58	15.00	12.93	5	0.34	150	10.34	125	8.62	100	6.90	180	82	6.0	30	20F24C2172AAF
1 1/2	1 1/4	31.75	22.5	19.40	5	0.34	150	10.34	125	8.62	100	6.90	180	82	6.0	32	24F24C2180AAF
2	2	50.80	56.00	48.27	2	0.14	150	10.34	150	10.34	150	10.34	180	82	11.0	1A	32F24C2199ACF
3	3	76.20	125.00	107.75	2	0.14	150	10.34	150	10.34	150	10.34	180	82	11.0	2A	48F28C9199ACF

PILOTED BRASS VALVES-NORMALLY OPEN (ENERGIZE TO CLOSE), NBR SEALS

AC VALVE SPECIFICATIONS

NPT Pipe Size	Orifice Diameter		Flow Factor		Operating Pressure Differential							Max. Temp.		AC Watt	Const. Ref.	Valve Part Number	
	inch	mm	Cv	Kv	Min. (PSI/Bar)	Max. (MOPD)			°F	°C							
						Air, Inert Gas (PSI/Bar)	Water (PSI/Bar)	Light Oil 300SSU (PSI/Bar)									
3/8	5/8		3.00	2.59	0	0.00	150	10.34	150	10.34	150	10.34	180	82	11.0	34	06F23O2140ACF
1/2	5/8		4.00	3.45	0	0.00	150	10.34	150	10.34	150	10.34	180	82	11.0	34	08F23O2140ACF
3/4	3/4		5.50	4.74	0	0.00	150	10.34	150	10.34	150	10.34	180	82	11.0	35	12F23O2148ACF
3/4	3/4		6.50	5.60	5	0.34	250	17.24	200	13.79	200	13.79	180	82	11.0	36	12F24O2148ACF
1	1		13.00	11.21	5	0.34	125	8.62	125	8.62	125	8.62	180	82	11.0	37	16F24O2164ACF
1 1/4	1 1/8		15.00	12.93	5	0.34	125	8.62	125	8.62	125	8.62	180	82	11.0	38	20F24O2172ACF
1 1/2	1 1/4		22.50	19.40	5	0.34	125	8.62	125	8.62	125	8.62	180	82	11.0	39	24F24O2180ACF
2	2		56.00	48.27	2	0.14	125	8.62	125	8.62	125	8.62	180	82	11.0	1A	32F24O2199ACF
3	3		125.00	107.75	2	0.14	125	8.62	125	8.62	125	8.62	180	82	11.0	2A	48F28O9199ACF

To choose a solenoid for your valve, refer to the AC or DC chart found on the flap attached to the back cover of this catalog.

Series 20, 23, 24, 26 Two-Way Pilot-Operated Valves

PILOTED BRASS VALVES—NORMALLY CLOSED (ENERGIZE TO OPEN), NBR SEALS

DC VALVE SPECIFICATIONS

NPT Pipe Size	Orifice Diameter		Flow Factor		Operating Pressure Differential								Max. Temp.		AC Watt	Const. Ref.	Valve Part Number
	inch	mm	Cv	Kv	Min. (PSI/Bar)		Max. (MOPD)						°F	°C			
							Air, Inert Gas (PSI/Bar)		Water (PSI/Bar)		Light Oil 300SSU (PSI/Bar)						
3/8	5/8	15.88	3.00	2.59	0	0.00	40	2.76	40	2.76	-	-	150	66	11.5	23	06F23C2140A3F
3/8	5/8	15.88	3.00	2.59	5	0.34	125	8.62	100	6.90	100	6.90	150	66	11.5	23	06F22C2140A3F
1/2	5/8	15.88	4.00	3.45	5	0.34	125	8.62	100	6.90	100	6.90	150	66	11.5	23	08F22C2140A3F
1/2	5/8	15.88	4.00	3.45	0	0.00	40	2.76	40	2.76	-	-	150	66	11.5	23	08F23C2140A3F
3/4	3/4	19.05	5.00	4.31	0	0.00	40	2.76	40	2.76	-	-	150	66	11.5	25	12F23C2148A3F
3/4	3/4	19.05	5.00	4.31	5	0.34	100	6.90	90	6.21	75	5.17	150	66	11.5	27	12F24C2148A3F
3/4	3/4	19.05	6.50	5.60	5	0.34	125	8.62	125	8.62	125	8.62	150	66	11.5	27	12F24C2148A3F
1	1	25.40	13.00	11.21	5	0.34	125	8.62	125	8.62	125	8.62	150	66	11.5	29	16F24C2164A3F
1 1/4	1 1/8	28.58	15.00	12.93	5	0.34	125	8.62	125	8.62	125	8.62	150	66	11.5	31	20F24C2172A3F
1 1/2	1 1/4	31.75	22.50	19.40	5	0.34	125	8.62	125	8.62	125	8.62	150	66	11.5	33	24F24C2180A3F
2	2	50.80	56.00	48.27	2	0.14	150	10.34	150	10.34	150	10.34	150	66	11.5	40	32F24C2199A3F
3	3	76.20	125.00	107.75	2	0.14	150	10.34	150	10.34	150	10.34	150	66	11.5	42	48F28C9199A3F

PILOTED BRASS VALVES—NORMALLY OPEN (ENERGIZE TO CLOSE), NBR SEALS

DC VALVE SPECIFICATIONS

NPT Pipe Size	Orifice Diameter		Flow Factor		Operating Pressure Differential								Max. Temp.		AC Watt	Const. Ref.	Valve Part Number
	inch	mm	Cv	Kv	Min. (PSI/Bar)	Max. (MOPD)						°F	°C				
						Air, Inert Gas (PSI/Bar)		Water (PSI/Bar)		Light Oil 300SSU (PSI/Bar)							
1/2	5/8	15.88	4.00	3.45	0	0.00	125	8.62	125	8.62	80	5.52	150	66	11.5	34	08F23O2140A3F
3/4	3/4	19.05	5.50	4.74	0	0.00	125	8.62	125	8.62	80	5.52	150	66	11.5	35	12F23O2148A3F
3/4	3/4	19.05	6.5	5.60	5	0.34	125	8.62	125	8.62	125	8.62	180	82	11.5	36	12F24O2148A3F
1	1	25.40	13.00	11.21	5	0.34	125	8.62	125	8.62	125	8.62	180	82	11.5	37	16F24O2164A3F
1 1/4	1/8	28.58	15.00	12.93	5	0.34	125	8.62	125	8.62	125	8.62	180	82	11.5	38	20F24O2172A3F
1 1/2	1 1/4	31.75	22.5	19.40	5	0.34	125	8.62	125	8.62	125	8.62	180	82	11.5	39	24F24O2180A3F
2	2	50.80	56.00	48.27	2	0.14	125	8.62	125	8.62	125	8.62	150	66	11.5	43	32F24O2199A3F
3	3	76.20	125	107.75	2	0.14	125	8.62	125	8.62	125	8.62	150	66	11.0	45	48F28O09199A3F

PILOTED STAINLESS STEEL VALVES—NORMALLY CLOSED (ENERGIZE TO OPEN), NBR SEALS

AC VALVE SPECIFICATIONS

NPT Pipe Size	Orifice Diameter		Flow Factor		Operating Pressure Differential								Max. Temp.		AC Watt	Const. Ref.	Valve Part Number
	inch	mm	Cv	Kv	Min. (PSI/Bar)		Max. (MOPD)						°F	°C			
							Air, Inert Gas (PSI/Bar)		Water (PSI/Bar)		Light Oil 300SSU (PSI/Bar)						
3/8	5/8	15.88	3.00	2.59	0	0.00	150	10.34	150	10.34	150	10.34	180	82	11.0	23	06F23C6140ACF
3/8	5/8	15.88	3.00	2.59	5	0.34	300	20.69	300	20.69	300	20.69	175	79	16.0	23	06F22C6140ADF
1/2	5/8	15.88	4.00	3.45	0	0.00	150	10.34	150	10.34	150	10.34	180	82	11.0	23	08F23C6140ACF
1/2	5/8	15.88	4.00	3.45	5	0.34	300	20.69	300	20.69	300	20.69	175	79	16.0	23	08F22C6140ADF
3/4	3/4	19.05	5.00	4.31	0	0.00	150	10.34	150	10.34	150	10.34	180	82	11.0	25	12F23C6148ACF
3/4	3/4	19.05	5.00	4.31	5	0.34	300	20.69	300	20.69	300	20.69	175	79	16	25	12F22C6148ADF
1	1	25.40	13.00	11.21	5	0.34	150	10.34	125	8.62	100	6.90	180	82	6.0	28	16F24C6164AAF
1 1/2	1 1/4	31.75	22.50	19.40	5	0.34	150	10.34	125	8.62	100	6.90	180	82	6.0	32	24F24C6180AAF

PILOTED STAINLESS STEEL VALVES—NORMALLY OPEN (ENERGIZE TO CLOSE), NBR SEALS

AC VALVE SPECIFICATIONS

NPT Pipe Size	Orifice Diameter		Flow Factor		Operating Pressure Differential								Max. Temp.		AC Watt	Const. Ref.	Valve Part Number
	inch	mm	Cv	Kv	Min. (PSI/Bar)		Max. (MOPD)						°F	°C			
							Air, Inert Gas (PSI/Bar)		Water (PSI/Bar)		Light Oil 300SSU (PSI/Bar)						
3/8	5/8	15.88	3.00	2.59	0	0.00	150	10.34	150	10.34	150	10.34	180	82	11.0	34	06F23O6140ACF
1/2	1/2	12.70	4.00	3.45	0	0.00	150	10.34	150	10.34	150	10.34	180	82	11.0	34	08F23O6140ACF
3/4	3/4	19.05	5.00	4.31	0	0.00	150	10.34	150	10.34	150	10.34	180	82	11.0	35	12F23O6148ACF
1	1	25.40	13.00	11.21	5	0.34	125	8.62	125	8.62	125	8.62	180	82	11.0	37	16F24O6164ACF
1 1/2	1 1/4	31.75	22.50	19.40	5	0.34	125	8.62	125	8.62	125	8.62	180	82	11.0	39	24F24O6180ACF

PILOTED STAINLESS STEEL VALVES– NORMALLY CLOSED (ENERGIZE TO OPEN), NBR SEALS

DC VALVE SPECIFICATIONS

NPT Pipe Size	Orifice Diameter		Flow Factor		Operating Pressure Differential								Max. Temp.		AC Watt	Const. Ref.	Valve Part Number
	inch	mm	Cv	Kv	Min. (PSI/Bar)		Max. (MOPD)						°F	°C			
							Air, Inert Gas (PSI/Bar)		Water (PSI/Bar)		Light Oil 300SSU (PSI/Bar)						
3/8	5/8	15.88	3.00	2.59	0	0.00	40	2.76	40	2.76	-	-	150	66	11.5	23	06F23C6140A3F
3/8	5/8	15.88	3.00	2.59	5	0.34	125	8.62	100	6.90	100	6.90	150	66	11.5	23	06F22C6140A3F
1/2	5/8	15.88	4.00	3.45	0	0.00	40	2.76	40	2.76	-	-	150	66	11.5	23	08F23C6140A3F
1/2	5/8	15.88	4.00	3.45	5	0.34	125	8.62	100	6.90	100	6.90	150	66	11.5	23	08F22C6140A3F
3/4	3/4	19.05	5.00	4.31	0	0.00	40	2.76	40	2.76	-	-	150	66	11.5	25	12F23C6148A3F
3/4	3/4	19.05	5.00	4.31	5	0.34	125	8.62	100	6.90	100	6.90	150	66	11.5	25	12F22C6148A3F
1	1	25.40	13.00	11.21	5	0.34	125	8.62	125	8.62	125	8.62	150	66	11.5	29	16F24C6164A3F
1 1/2	1 1/4	31.75	22.50	19.40	5	0.34	125	8.62	125	8.62	125	8.62	150	66	11.5	33	24F24C6180A3F

PILOTED STAINLESS STEEL VALVES– NORMALLY OPEN (ENERGIZE TO CLOSE), NBR SEALS

DC VALVE SPECIFICATIONS

NPT Pipe Size	Orifice Diameter		Flow Factor		Operating Pressure Differential								Max. Temp.		AC Watt	Const. Ref.	Valve Part Number
	inch	mm	Cv	Kv	Min. (PSI/Bar)		Max. (MOPD)						°F	°C			
							Air, Inert Gas (PSI/Bar)		Water (PSI/Bar)		Light Oil 300SSU (PSI/Bar)						
3/8	5/8	15.88	3.00	2.59	0	0.00	125	8.62	125	8.62	80	5.52	150	66	11.5	34	06F23O6140A3F
1/2	5/8	15.88	4.00	3.45	0	0.00	125	8.62	125	8.62	80	5.52	150	66	11.5	34	08F23O6140A3F
3/4	3/4	19.05	5.00	4.31	0	0.00	125	8.62	125	8.62	80	5.52	150	66	11.5	35	12F23O6148A3F
1	1	25.40	13.00	11.21	5	0.34	125	8.62	125	8.62	125	8.62	180	82	11.5	37	16F24O6164A3F
1 1/2	1 1/4	31.75	22.5	19.40	5	0.34	125	8.62	125	8.62	125	8.62	180	82	11.5	39	24F24O6180A3F

DRAWINGS

Explosion-Proof/Watertight
Shown in Outline

#22, 23, 24, 25, 34, 35

Explosion-Proof/Watertight
Shown in Outline

#28, 29, 30, 31, 37, 38

To choose a solenoid for your valve, refer to the AC or DC chart found on the flap attached to the back cover of this catalog.

Series 22, 23, 24, 26 Two-Way Pilot-Operated Valves

DRAWINGS

	Drawing 26	Drawing 27	Drawing 36
A	4 11/32	4 1/32	4 1/32
B	3 1/8	2 13/16	2 13/16
C	1 5/16	1 17/32	1 17/32
D	23/32	7/8	7/8
E	2 11/16	2 29/32	2 3/4
F	3 17/32	3 3/4	3 3/4
G	1 9/16	1 13/16	1 13/16

Explosion-Proof/Watertight
Shown in Outline

#26, 27, 28

	Drawing 32	Drawing 33	Drawing 39
A	4 31/32	4 21/32	4 21/32
B	3 23/32	3 7/16	3 7/16
C	23/32	7/8	7/8
D	1 5/16	1 17/32	1 17/32
E	3 5/16	3 17/32	3 3/8
F	4 5/32	4 3/8	4 3/8
G	1 9/16	1 13/16	1 13/16

#32, 33, 39

#1A

#2A