

# GOLD RING Series 20 Small Two-Way Direct Acting Valves

## SPECIFICATIONS

### Mechanical Characteristics

#### Standard Materials of Construction

- Body-Brass, 303 Stainless Steel, 316 Stainless Steel as listed
- Seals-NBR or Urethane as listed
- 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-1/8-inch NPT Celcon, 1/4-inch Ryton

#### Compatible Fluids

- Gases, Fluid, Light Oils, or Vacuum from 760-23 Torr (29" Mercury) 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: 200°F max.
- DC Voltages: 150°F max.
- Ambient: 32-77°F (standard)
- For temperature variations, consult the factory.

#### Installation

- Series 20 valves may be mounted in any position. Product and mounting dimensions shown are nominal. For certified dimensions, consult factory.

#### Applications

- Used in a variety of applications including: Material Transfer, Molding, Vending Machines, Instrumentation, Welding Equipment, Water Treatment Systems, Spray Equipment, Dental Equipment, Laundry Equipment, Food Processing Machinery.

## DIRECT ACTING 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)								
1/8	3/64	1.19	.06	0.05	0	750	51.72	750	51.72	530	36.55	180	82	6.0	1	02F20C1103AAF
1/8	3/32	2.38	.20	0.17	0	275	18.97	290	20.00	130	8.97	180	82	6.0	1	02F20C1106AAF
1/8	1/8	3.18	.34	0.29	0	155	10.69	180	12.41	140	9.66	180	82	6.0	1	02F20C1108AAF
1/4	3/64	1.19	.06	0.05	0	750	51.72	750	51.72	500	34.48	180	82	6.0	2	04F20C1103AAF
1/4	3/64	1.19	.06	0.05	0	1500	103.45	1500	103.45	1100	75.86	140	60	11.0	3	04F20C1503ACF*
1/4	3/32	2.38	.17	0.15	0	360	24.83	340	23.45	160	11.03	180	82	6.0	2	04F20C1106AAF
1/4	1/8	3.18	.35	0.30	0	140	9.66	165	11.38	90	6.21	180	82	6.0	2	04F20C1108AAF
1/4	1/8	3.18	.35	0.30	0	300	20.69	300	20.69	200	13.79	180	82	11.0	3	04F20C1108ACF
1/4	5/32	3.97	.50	0.43	0	160	10.34	150	10.34	145	10.00	180	82	11.0	5	04F20C2110ACF
1/4	7/32	5.56	.85	0.73	0	40	2.76	50	3.45	40	2.76	180	82	6.0	4	04F20C2114AAF
1/4	7/32	5.56	.72	0.62	0	100	6.90	100	6.90	100	6.90	180	82	16.0	5	04F20C2114BDF
1/4	9/32	7.14	.96	0.83	0	27	1.86	36	2.48	28	1.93	180	82	6.0	4	04F20C2118AAF
1/4	9/32	7.14	.88	0.76	0	60	4.14	50	3.45	50	3.45	180	82	11.0	5	04F20C2118BCF
1/4	9/32	7.14	.88	0.76	0	90	6.21	80	5.52	80	5.52	200	93	16.0	5	04F20C2118BDF
3/8	1/8	3.18	.35	0.30	0	160	11.03	150	10.34	90	6.21	180	82	6.0	6	06F20C2108AAF
3/8	5/32	3.97	.52	0.45	0	150	10.34	150	10.34	145	10.00	180	82	11.0	7	06F20C2110ACF
3/8	7/32	5.56	.72	0.62	0	100	6.90	100	6.90	100	6.90	200	93	16.0	7	06F20C2114BDF
3/8	9/32	7.14	.85	0.73	0	90	6.21	80	5.52	80	5.52	200	93	16.0	7	06F20C2118BDF

\* Valve is standard with urethane disc.



**DIRECT ACTING BRASS VALVES – NORMALLY OPEN (ENERGIZE TO CLOSE), NBR SEALS**

**AC VALVE SPECIFICATIONS**

NPT Pipe Size	Orifice Diameter		Flow Factor		Min. (PSI/Bar)	Operating Pressure Differential						Max. Temp.		AC Watt	Const. Ref.	Valve Part Number
	inch	mm	Cv	Kv		Max. (MOPD)						°F	°C			
						Air, Inert Gas (PSI/Bar)		Water (PSI/Bar)		Light Oil 300SSU (PSI/Bar)						
1/8	1/16	1.59	.09	0.08	0	500	34.48	300	20.69	225	15.52	180	82	10.2	8	02F2001104ABF
1/8	3/32	2.38	.15	0.13	0	275	18.97	200	13.79	150	10.34	180	82	6.0	8	02F2001106AAF
1/8	1/8	3.18	.21	0.18	0	125	8.62	100	6.90	85	5.86	180	82	6.0	8	02F2001108AAF
1/4	3/64	1.19	.06	0.05	0	750	51.72	700	48.28	700	48.28	180	82	11.0	9	04F2001103ACF
1/4	3/32	2.38	.17	0.15	0	300	20.69	250	17.24	230	15.86	180	82	11.0	9	04F2001106ACF
1/4	1/8	3.18	.35	0.30	0	130	8.97	110	7.59	100	6.90	180	82	11.0	9	04F2001108ACF
1/4	5/32	3.97	.49	0.42	0	85	5.86	75	5.17	60	4.14	180	82	11.0	10	04F2002110ACF
1/4	7/32	5.56	.83	0.72	0	45	3.10	45	3.10	40	2.76	180	82	11.0	10	04F2002114ACF
1/4	9/32	7.14	.96	0.83	0	30	2.07	25	1.72	20	1.38	180	82	11.0	10	04F2002118ACF

**DIRECT ACTING BRASS VALVES – NORMALLY CLOSED (ENERGIZE TO OPEN), NBR SEALS**

**DC VALVE SPECIFICATIONS**

NPT Pipe Size	Orifice Diameter		Flow Factor		Min. (PSI/Bar)	Operating Pressure Differential						Max. Temp.		DC Watt	Const. Ref.	Valve Part Number
	inch	mm	Cv	Kv		Max. (MOPD)						°F	°C			
						Air, Inert Gas (PSI/Bar)		Water (PSI/Bar)		Light Oil 300SSU (PSI/Bar)						
1/8	3/64	1.19	.06	0.05	0	500	34.48	500	34.48	500	34.48	120	49	9.5	1	02F20C1103A1F
1/8	3/32	2.38	.20	0.17	0	150	10.34	140	9.66	145	10.00	120	49	9.5	1	02F20C1106A1F
1/8	1/8	3.18	.34	0.29	0	80	5.52	80	5.52	80	5.52	120	49	9.5	1	02F20C1108A1F
1/4	3/64	1.19	.06	0.05	0	500	34.48	500	34.48	500	34.48	120	49	9.5	2	04F20C1103A1F
1/4	3/32	2.38	.17	0.15	0	150	10.34	125	8.62	125	8.62	120	49	9.5	2	04F20C1106A1F
1/4	1/8	3.18	.35	0.30	0	65	4.48	60	4.14	60	4.14	120	49	9.5	2	04F20C1108A1F
1/4	1/8	3.18	.35	0.30	0	75	5.17	70	4.83	70	4.83	150	66	11.5	3	04F20C1108A3F
1/4	5/32	3.97	.50	0.43	0	40	2.76	40	2.76	45	3.10	150	66	11.5	5	04F20C2110A3F
1/4	7/32	5.56	.85	0.73	0	17	1.17	20	1.38	21	1.45	120	49	9.5	4	04F20C2114A1F
1/4	7/32	5.56	.72	0.62	0	25	1.72	25	1.72	25	1.72	150	66	11.5	5	04F20C2114A3F
1/4	9/32	7.14	.96	0.83	0	15	1.03	16	1.10	16	1.10	120	49	9.5	4	04F20C2118A1F
3/8	1/8	3.18	.35	0.30	0	75	5.17	70	4.83	70	4.83	150	66	11.5	7	06F20C2108A3F
3/8	5/32	3.97	.52	0.45	0	35	2.41	35	2.41	35	2.41	150	66	11.5	7	06F20C2110A3F
3/8	7/32	5.56	.72	0.62	0	25	1.72	25	1.72	25	1.72	150	66	11.5	7	06F20C2114A3F
3/8	9/32	7.14	.85	0.73	0	14	0.97	14	0.97	14	0.97	120	49	9.5	6	06F20C2118A1F

**DIRECT ACTING BRASS VALVES – NORMALLY OPEN (ENERGIZE TO CLOSE), NBR SEALS**

**DC VALVE SPECIFICATIONS**

NPT Pipe Size	Orifice Diameter		Flow Factor		Min. (PSI/Bar)	Operating Pressure Differential						Max. Temp.		DC Watt	Const. Ref.	Valve Part Number
	inch	mm	Cv	Kv		Max. (MOPD)						°F	°C			
						Air, Inert Gas (PSI/Bar)		Water (PSI/Bar)		Light Oil 300SSU (PSI/Bar)						
1/8	1/16	1.59	.09	0.08	0	400	27.59	250	17.24	150	10.34	120	49	9.5	8	02F2001104A1F
1/8	3/32	2.38	.15	0.13	0	190	13.10	110	7.59	110	7.59	120	49	9.5	8	02F2001106A1F
1/8	1/8	3.18	.21	0.18	0	80	5.52	60	4.14	50	3.45	120	49	9.5	8	02F2001108A1F
1/4	3/64	1.19	.06	0.05	0	500	34.48	500	34.48	500	34.48	140	60	11.5	9	04F2001103A3F
1/4	3/32	2.38	.17	0.15	0	200	13.79	150	10.34	125	8.62	140	60	11.5	9	04F2001106A3F
1/4	1/8	3.18	.35	0.30	0	80	5.52	60	4.14	60	4.14	150	66	11.5	9	04F2001108A3F
1/4	5/32	3.97	.49	0.42	0	45	3.10	30	2.07	30	2.07	150	66	11.5	10	04F2002110A3F
1/4	7/32	5.56	.83	0.72	0	25	1.72	20	1.38	20	1.38	150	66	11.5	10	04F2002114A3F
1/4	9/32	7.14	.96	0.83	0	15	1.03	15	1.03	15	1.03	150	66	11.5	10	04F2002118A3F

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.