



Guidelines for Solenoid Valves

This bulletin will supplement the Original Line® catalog, outlining the cylinders available with built-in solenoid (operator) valves (attachment, pp. 2 & 3). Available orifice sizes as well as operating voltages are outlined, in addition to just the operator valves alone (p. 4).

BF-091-LS2P EE0.5

BF		09	1	LS	2	P	EE0.5
TYPE		BORE SIZE	STROKE ⁵	OPERATOR VALVES AVAILABLE	ORIFICE SIZES AVAILABLE	VOLTAGE CODE	COIL VOLTAGE
BF ¹	BLOCK FRONT	04 (3/4")		(NR) ⁶ 2-WIRE CONNECTION	1 ⁴ 3/64"	A	6VDC
M ²	MAGNETIC PISTON	09 (1-1/16") 12 (1-1/4")		LS	2 1/32"	D	12VDC
SR	#303 S.S. ROD			(NR) ⁶ 1/2-NPT CONDUIT CONNECTOR	3 3/32"	E	12V/60HZ
						G	24VDC
						H	24V/60HZ
						I	24V/50HZ
						M	110VDC
						N ⁴	115V/60HZ
						P	115V/50HZ
						R	230V/60HZ
						S	230V/50HZ
						X	NO COIL

NOTE: Magnetic piston option includes #303 S.S. rod.

NOTE: Nose mount standard on hex (NR) non-rotating model³

OPTIONS			
CODE	DESCRIPTION	COMMENTS	ORDERED AS:
B	BUMPERS	REAR HEAD SIDE ONLY (OPPOSITE SPRING)	bore/stroke-operator valve/B
EE*	EXTRA ROD EXTENSION		bore/stroke-valve/EE.XX
G	MAGNALUBE LUBRICATION		bore/stroke-operator valve/G
H*	HEAVY SPRING		bore/stroke-H/operator valve
NT	NON-THREADED ROD		bore/stroke-operator valve/NT
V2	HIGH TEMPERATURE FLUOROELASTOMER SEALS	FOR COMPATIBILITY ONLY	bore/stroke-operator valve/V

The information presented is in Bimba's best engineering opinion and should be used for reference only. Recommendations derived should be verified under actual operating conditions. Bimba reserves the right to change specifications without prior notice.

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 Rev Level: 0

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*"H" option will always be called out first, "EE" option will always be last. All other options will be in alphabetical order immediately following operator valve.

1. Block front mount is not available for "12" (1-1/4" bore) series as standard, can be done as a special. S.S. rod standard on "BF" models.
2. Operator valve is rated from -20° to 185° Fahrenheit.
3. If desired, hex non-rotating rod ("NR" option) can be ordered for respective standard bore sizes as: bore/stroke-NR/operator valve (091-NRLS).
4. Option combination "1N" is standard and is supplied when no options are required. Therefore, option "1N" is an invalid entry. If **anything** other than the standard orifice/operator valve combination is desired, it must be specified accordingly. EX: 091-LS1E. Standard orifice (1-3/64") still noted, despite only a different operator valve (12V/60HZ) being desired.
5. Standard stroke lengths apply. Non-standard stroke lengths over maximum require quotation.
6. Non-rotating rod is not available with block front mount.

SPECIFICATIONS

Response time: AC models: 5-20ms
DC models: 5ms

Current: AC/inrush - 150mA, holding - 100mA

Nominal Power: 7 watts

BF-091-S2P EE0.5

BF		091	1	S	2	P	EE0.5
TYPE		BORE SIZE	STROKE ⁵	OPERATOR VALVES AVAILABLE	ORIFICE SIZES AVAILABLE	VOLTAGE CODE	COIL VOLTAGE
BF ¹	BLOCK FRONT	09 (1-1/16")		(NR) ⁶ 2-WIRE CONNECTION	1 ⁴ 1/16"	A	6VDC
M ²	MAGNETIC PISTON	17 (1-1/2")		(NR) ⁶ 1/2-NPT CONDUIT CONNECTOR	2 3/64"	D	12VDC
SR	#303 S.S. ROD				3 3/32"	E	12V/60HZ
					4 1/8"	G	24VDC
						H	24V/60HZ
						I	24V/50HZ
						M	120VDC
						N ⁴	120V/60HZ
						P	115V/50HZ
						Q	240VDC
						R	240V/60HZ
						S	250V/50HZ
						U	480V/60HZ
						X	NO COIL

NOTE: Magnetic piston option includes #303 S.S. rod.

NOTE: Nose mount standard on hex (NR) non-rotating model⁹

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OPTIONS			
CODE	DESCRIPTION	COMMENTS	ORDERED AS:
B	BUMPERS	REAR HEAD SIDE ONLY (OPPOSITE SPRING)	bore/stroke-operator valve/B
EE*	EXTRA ROD EXTENSION		bore/stroke-valve/EE.XX
G	MAGNALUBE LUBRICATION		bore/stroke-operator valve/G
H*	HEAVY SPRING		bore/stroke-H/operator valve
NT	NON-THREADED ROD		bore/stroke-operator valve/ NT
V2	HIGH TEMPERATURE FLUOROELASTOMER SEALS	FOR COMPATIBILITY ONLY	bore/stroke-operator valve/V

*“H” option will always be called out first, “EE” option will always be last. All other options will be in alphabetical order immediately following operator valve.

1. Block front mount is not available for “09” (1-1/16" bore) series as standard, can be done as a special. S.S. rod standard on BF-17_ models.
2. Operator valve is rated from -20° to 185° Fahrenheit.
3. If desired, hex non-rotating rod (“NR” option) can be ordered for respective standard bore sizes as: bore/stroke-NR/operator valve (091-NRSC).
4. Option combination “1N” is standard and is supplied when no options are required. Therefore, option “1N” is an invalid entry. If **anything** other than the standard orifice/operator valve combination is desired, it must be specified accordingly. EX: 091-SC1D. Standard orifice (1-1/16") still noted, despite only a different operator valve (12VDC) being desired.
5. Standard stroke lengths apply. Non-standard stroke lengths over maximum require quotation.
6. Non-rotating rod is not available with block front mount.

SPECIFICATIONS

Response time: AC models: 5-20ms
DC models: 5ms

Current: AC/inrush - 150mA, holding - 100mA

Nominal Power: 10 watts

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VOLTAGE CODE	COIL VOLT-AGE	LS VALVE P/N	LSC VALVE P/N	STD. ORIFICE SIZE	OTHER ORIFICE SIZES	COIL VOLTAGE	S VALVE P/N	SC VALVE P/N	STD. ORIFICE SIZE	OTHER ORIFICE SIZES
A	6VDC	D-12878-P	D-12889-P	3/64" (1)*	1/32" (2) 3/32" (3)	6VDC	D-12916-P	D-12930-P	1/16" (1)*	3/64" (2) 3/32" (3) 1/8" (4)
D	12VDC	D-12879-P	D-12890-P	"	"	12VDC	D-12917-P	D-12931-P	"	"
E	12V/60HZ	D-12880-P	D-12891-P	"	"	12V/60HZ	D-12918-P	D-12932-P	"	"
G	24VDC	D-12881-P	D-12892-P	"	"	24VDC	D-12919-P	D-12933-P	"	"
H	24V/60HZ	D-12882-P	D-12893-P	"	"	24V/60HZ	D-12920-P	D-12934-P	"	"
I	24V/50HZ	D-12883-P	D-12894-P	"	"	24V/50HZ	D-12921-P	D-12935-P	"	"
J	N/A	N/A	N/A	N/A	N/A	90VDC	D-12922-P	D-12936-P	"	"
M	110VDC	D-12884-P	D-12895-P	"	"	120VDC	D-12923-P	D-12937-P	"	"
N*	115V60HZ	D-12885-P	D-12896-P	"	"	120V60HZ	D-12924-P	D-12938-P	"	"
P	115V50HZ	D-12886-P	D-12897-P	"	"	115V50HZ	D-12925-P	D-12939-P	"	"
Q	N/A	N/A	N/A	N/A	N/A	240VDC	D-12926-P	D-12940-P	"	"
R	230V/60HZ	D-12887-P	D-12898-P	"	"	240V60HZ	D-12927-P	D-12941-P	"	"
S	230V50HZ	D-12888-P	D-12899-P	"	"	250V50HZ	D-12928-P	D-12942-P	"	"
U	N/A	N/A	N/A	N/A	N/A	480V60HZ	D-12929-P	D-12943-P	"	"
X	NO COIL					NO COIL				

*Option combination "1N" is standard and supplied when no options are required. Option "1N" is an invalid entry.

- AC models have a response time of 5-20 milliseconds.
- DC models have a response time of 5 milliseconds.
- Nominal power: LS/LSC series - 7 watts, S/SC series - 10 watts.
- O-ring used to seal cylinder to operator valve can be ordered separately. #D-1711 for "LS or LSC" models, #D-2053 for "S or SC" models.

OPERATOR VALVE	ORIFICE SIZE	ORIFICE PART NUMBER	VALVE ADAPTORS
LS/LSC	3/64"	D-12874-P	D-15929 (1/8" NPT EXHAUST PORT)
	1/32"	D-12875-P	D-15449 (1/16" NPT EXHAUST PORT)
	3/32"	D-12960-P	
S/SC	1/16"	D-12911-P	D-15125 (1/4" NPT EXHAUST PORT)
	3/64"	D-12912-P	D-25203 (1/8" NPT EXHAUST PORT)
	3/32"	D-12913-P	

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