



# series Q-08 premier directional control valve



536 TOWNSHIP LINE ROAD  
FLUID TECHNOLOGY ANNEX  
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4500 psi, 80 gpm nominal  
wet armature solenoid operated

## series Q-08 premier directional control valve

### QUICK REFERENCE

#### Mounting Interface

#### NFPA-D08

- Nominal Flow – 80GPM  
Maximum Flow – 133 GPM  
(See chart for typical flow and pressure limits.)
- Pilot Pressure - 65 PSI MIN.  
3000 PSI MAX.
- Temperature Range  
Recommended 100° - 140° F  
Maximum -5° - 190° F
- Wet Armature Solenoids  
Plug-in-Coils
- Maximum Pressure Ports  
P-A-B – 4500 PSI  
T – 3000 PSI externally drained  
1000 PSI internally drained

- Filtration Requirements  
up to 3000 PSI  
ISO 4406 20/6  
above 3000 PSI  
ISO 4406 18/14
- Viscosity Range  
Recommended 77 - 245 SUS  
Maximum 60 - 4000 SUS
- Manual Solenoid Override

### Ordering Information

**Q \* \* - 08 - \* \* \* - \* - \* - \* - \* \* - \* \* \* - 10E1**

SUBPLATE MOUNTED

SPOOL/SPRING ARRANGEMENT

F – 3 POS. SPRING CENTERED  
J – 2 POS. SPRING OFFSET

ACTUATION TYPE

OMIT – SOLENOID OPERATED  
R – MANUAL (LEVER) OPERATED

VALVE INTERFACE

08 – NFPA D08  
NG25  
CETOP08

SPOOL FUNCTION AND TYPE  
(SEE SPOOL CONFIGURATION ON PAGE 4)

IP – INTERNAL PILOT  
EP – EXTERNAL PILOT

DESIGN CODE

COIL VOLTAGE

A120 – 120 VAC 50/60 HZ  
D12 – 12 VDC  
D24 – 24 VDC  
R120 – RECTIFIED 120 VDC  
OMIT FOR MANUAL

ELECTRICAL CONNECTION

DN – DIN HIRSCHMANN WITH  
INDICATING LIGHT  
JL – JUNCTION BOX WITH  
INDICATING LIGHT  
OMIT FOR MANUAL

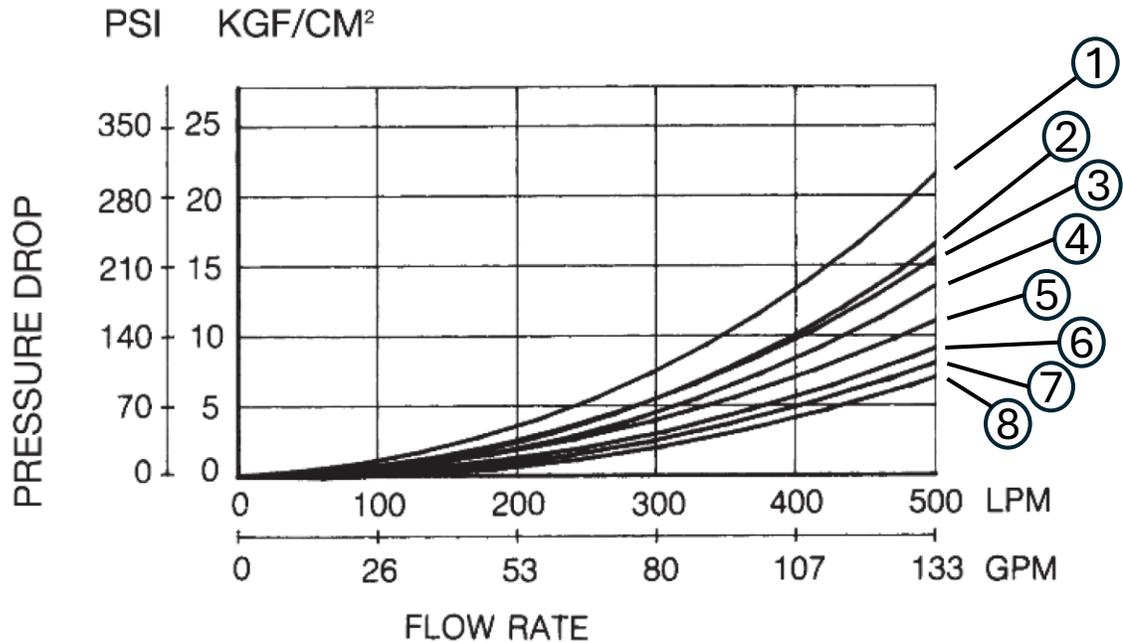
SEAL OPTION

B – BUNA  
V – VITON

ID – INTERNAL DRAIN  
ED – EXTERNAL DRAIN

## Performance

### Fluid Viscosity: 35cst (175 ssu)



### Viscosity Factors

Factor	Viscosity	
	SSU	CST
0.81	77	15
0.87	98	20
0.96	141	30
1.03	186	40
1.09	232	50
1.14	278	60
1.19	324	70
1.23	371	80
1.27	417	90
1.30	464	100

### PRESSURE DROP CURVE REFERENCE

SPOOL TYPE	Pressure Drop Curve Number				
	P → A	B → T	P → B	A → T	P → T
FC	8	5	8	7	-
FO	6	4	6	7	6
FFF	8	5	8	7	-
FFO1	8	4	5	7	2
FTTO	5	1	5	4	3
FF1	8	5	8	7	-
FOP1	8	4	5	7	-
JC	8	5	8	7	-
JO	6	4	6	7	-

$$\Delta P' = \Delta P (G' / 0.85) \text{ for other specific gravity (G')}$$

# Spool Functions

## QF-08-\*\*-\*\*

3 POSITION  
SPRING CENTERED  
SOLENOID OPERATED

TYPE	GRAPHIC SYMBOLS
FC	
FO	
FFF	
FFO1	
FTTO	
FF1	
FOP1	

## QFR-08-\*\*-\*\*

3 POSITION  
SPRING CENTERED  
LEVER OPERATED

TYPE	GRAPHIC SYMBOLS
FC	
FO	
FFF	
FTTO	
FF1	
FOP1	

**PORT INTERCONNECTION:**

- With side "a" actuated, P → A, B → T
- With side "b" actuated, P → B, A → T
- Both port interconnections are reversed for FFO1, FFO2, FTTO, and FTTC type

## QJ-08-\*\*-\*\*

2 POSITION  
SPRING RETURN  
SOLENOID OPERATED

TYPE	GRAPHIC SYMBOLS
JC	
JO	

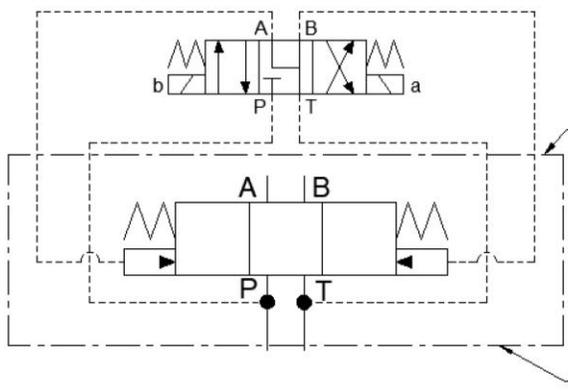
## QJR-08-\*\*-\*\*

2 POSITION  
SPRING RETURN  
LEVER OPERATED

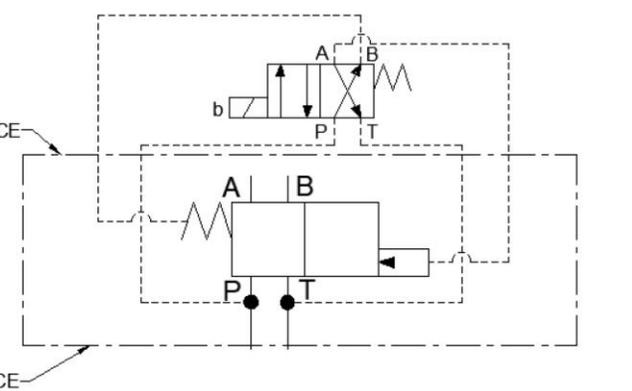
TYPE	GRAPHIC SYMBOLS
JC	
JO	

### SAMPLE EXPANDED SCHEMATIC SYMBOLS

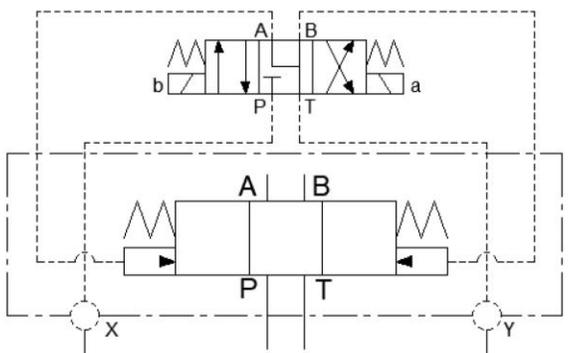
3 POS., SPRING CENTERED, SOLENOID OPERATED  
INTERNAL PILOT & DRAIN  
QF-08-F\*-IP-ID-\*\*-\*\*-10E1  
PILOT VALVE: QF-03-FFF-\*\*-\*\*-10E1



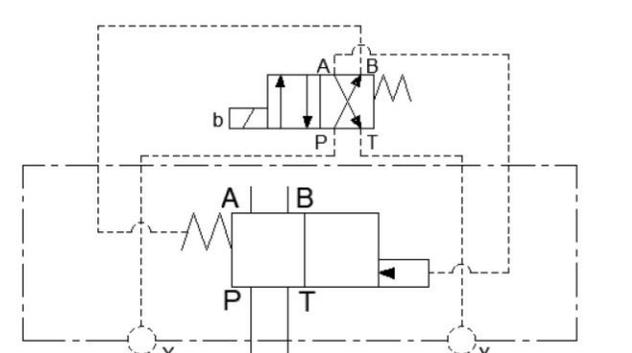
2 POS., SPRING OFFSET SOL. A, SOLENOID OPERATED  
INTERNAL PILOT & DRAIN  
QJ-08-J\*-IP-ID-\*\*-\*\*-10E1  
PILOT VALVE: QG-03-GC-\*\*-\*\*-10E1



3 POS., SPRING CENTERED, SOLENOID OPERATED  
EXTERNAL PILOT & DRAIN  
QF-08-F\*-EP-ED-\*\*-\*\*-10E1  
PILOT VALVE: QF-03-FFF-\*\*-\*\*-10E1



2 POS., SPRING OFFSET SOL. A, SOLENOID OPERATED  
EXTERNAL PILOT & DRAIN  
QJ-08-J\*-EP-ED-\*\*-\*\*-10E1  
PILOT VALVE: QG-03-GC-\*\*-\*\*-10E1



# Installation Dimensions

Q\*-08-\*\*-\*\*-\*\*\*\*-\*\*-

- Models with AC solenoids

