

RESTRICTORS

SRT/SRG-03/06/10 (3/8, 3/4, 1-1/4)

ONE WAY RESTRICTORS

SRCT/SRCG-03/06/10 (3/8, 3/4, 1-1/4)

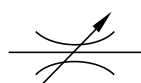
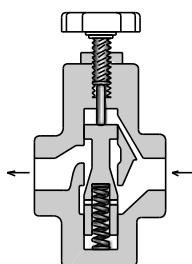
Threaded Connections / Sub-plate Mounting

FLOW CONTROLS

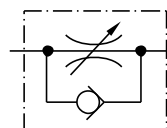
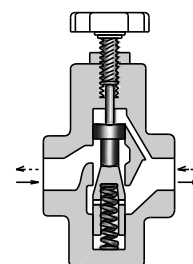
Up to 25 MPa (3630 PSI), 500 L/min (132 U.S.GPM)

This valve is used to regulate an actuator speed in a circuit where line pressure is almost steady and small fluctuation of oil flow due to pressure changes is permitted. Integrated check valve allows reversed free flow from outlet to inlet port. Pressure balanced construction provides less effort in adjustment at high pressure.

■ Restrictors



■ One Way Restrictors



■ Hydraulic Fluids

● Fluid Types

Any type of hydraulic fluid listed in the table below can be used.

| | |
|-------------------------|--|
| Petroleum base oils | Use fluids equivalent to ISO VG 32 or VG 46. |
| Synthetic fluids | Use phosphate ester or polyol ester fluid. When phosphate ester fluid is used, prefix "F-" to the model number because the special seals (fluororubber) are required to be used. |
| Water containing fluids | Use water-glycol fluid. |

Note: For use with hydraulic fluids other than those listed above, please consult your Yuken representatives in advance.

● Recommended Viscosity and Temperatures

Viscosity ranging between 15 - 400 mm²/s (77 - 1800 SSU).

Oil temperatures between -15/+70℃ (5 - 158℉).

Use hydraulic fluids which satisfy the recommended viscosity and oil temperatures given above.

● Control of Contamination

Due caution must be paid to maintaining control over contamination of the hydraulic fluids which may otherwise lead to breakdowns and shorten the life of the valves. Please maintain the degree of contamination within NAS 1638-Grade 12. Use 25 μm or finer line filter.

Specifications

| Valve Name | Model Numbers | | Rated Flow [★] L/min (U.S.GPM) | Max. Operating Pres. MPa (PSI) | Approx. Mass kg (lbs.) | |
|--------------------|----------------------|--------------------|---|-----------------------------------|---------------------------|--------------------|
| | Threaded Connection | Sub-plate Mounting | | | Threaded Connection | Sub-plate Mounting |
| Restrictor | SRT-03-50/5080/5090 | SRG-03-50/5090 | 30(7.9) | 25 (3630) | 1.5(3.3) | 2.5(5.5) |
| | SRT-06-50/5080/5090 | SRG-06-50/5090 | 85(22.4) | | 3.8(8.4) | 3.9(8.6) |
| | SRT-10-50/5080/5090 | SRG-10-50/5090 | 230(60.7) | | 9.1(20.1) | 7.5(16.5) |
| One Way Restrictor | SRCT-03-50/5080/5090 | SRCG-03-50/5090 | 30(7.9) | 25 (3630) | 1.5(3.3) | 2.5(5.5) |
| | SRCT-06-50/5080/5090 | SRCG-06-50/5090 | 85(22.4) | | 3.8(8.4) | 3.9(8.6) |
| | SRCT-10-50/5080/5090 | SRCG-10-50/5090 | 230 (60.7) | | 9.1 (20.1) | 7.5 (16.5) |

★ Rated flow stands for approximate flow rate when the pressure drop between inlet and outlet ports of the valve in fully opened condition becomes 0.3 MPa (44 PSI) maximum at fluid's specific gravity of 0.85 and kinematic viscosity of 20 mm²/s (98 SSU).

Yuken can offer flanged connection valves described below.

For details, contact us.

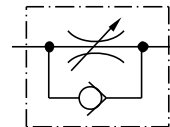
| Model Numbers | Rated Flow L/min (U.S.GPM) | Max. Operating Pressure MPa (PSI) |
|------------------------------------|----------------------------------|--------------------------------------|
| SRF/SRCF-10-50 SRF/SRCF-10-5090 | 230 (60.7) | 25 (3630) |
| SRF/SRCF-16-50 SRF/SRCF-16-5090 | 500 (132) | |

Graphic Symbols

SRT / SRG



SRCT / SRCG



Model Number Designation

| F- | SR | T | -03 | -50 | * | |
|--|--------------------------------------|-------------------------------|------------|---------------|--|---|
| Special Seals | Series Number | Type of Mounting | Valve Size | Design Number | Design Standards | |
| F: Special Seals for Phosphate Ester Type Fluids (Omit if not required) | SR: Restrictor | T: Threaded Connection | 03 | 50 | None: Japanese Std. "JIS" 80: European Design Std. 90: N.American Design Std. | |
| | | | 06 | 50 | | |
| | | | 10 | 50 | | |
| | | G: Sub-plate Mounting | 03 | 50 | | None: Japanese Std. "JIS" & European Design Std. 90: N.American Design Std. |
| | | | 06 | 50 | | |
| | | | 10 | 50 | | |
| | SRC: One Way Restrictor | T: Threaded Connection | 03 | 50 | None: Japanese Std. "JIS" 80: European Design Std. 90: N.American Design Std. | |
| | | | 06 | 50 | | |
| | | | 10 | 50 | | |
| | | G: Sub-plate Mounting | 03 | 50 | | None: Japanese Std. "JIS" & European Design Std. 90: N.American Design Std. |
| | | | 06 | 50 | | |
| | | | 10 | 50 | | |

■ Attachment

● Mounting Bolts

| Valve Model Numbers | Socket Head Cap Screw | | Qty. |
|---------------------|--|-------------------------|------|
| | Japanese Std. "JIS" and European Design Std. | N. American Design Std. | |
| SRG/SRCG-03 | M10 × 45 Lg. | 3/8-16 UNC × 1-3/4 Lg. | 4 |
| SRG/SRCG-06 | M10 × 50 Lg. | 3/8-16 UNC × 2 Lg. | 4 |
| SRG/SRCG-10 | M10 × 55 Lg. | 3/8-16 UNC × 2-1/4 Lg. | 6 |

■ Sub-plate

| Valve Model Numbers | Japanese Standard "JIS" | | European Design Standard | | N. American Design Standard | | Approx. Mass kg (lbs.) |
|---------------------|-------------------------|-------------|--------------------------|-------------|-----------------------------|-------------|---------------------------|
| | Sub-plate Model Numbers | Thread Size | Sub-plate Model Numbers | Thread Size | Sub-plate Model Numbers | Thread Size | |
| SRG SRCG-03 | CRGM-03-50 | Rc 3/8 | CRGM-03-5080 | 3/8BSP.F | CRGM-03-5090 | 3/8NPT | 1.6(3.5) |
| | CRGM-03X-50 | Rc 1/2 | CRGM-03X-5080 | 1/2BSP.F | CRGM-03X-5090 | 1/2NPT | 1.6(3.5) |
| SRG SRCG-06 | CRGM-06-50 | Rc 3/4 | CRGM-06-5080 | 3/4BSP.F | CRGM-06-5090 | 3/4NPT | 2.4(5.3) |
| | CRGM-06X-50 | Rc 1 | CRGM-06X-5080 | 1BSP.F | CRGM-06X-5090 | 1NPT | 3.0(6.6) |
| SRG SRCG-10 | CRGM-10-50 | Rc 1-1/4 | CRGM-10-5080 | 1-1/4BSP.F | CRGM-10-5090 | 1-1/4NPT | 4.8(10.6) |
| | CRGM-10X-50 | Rc 1-1/2 | CRGM-10X-5080 | 1-1/2 BSP.F | CRGM-10X-5090 | 1-1/2 NPT | 5.7 (12.6) |

- Sub-plates are available. Specify the sub-plate model number from the table above. When sub-plates are not used, the mounting surface should have a good machined finish.

■ Instructions

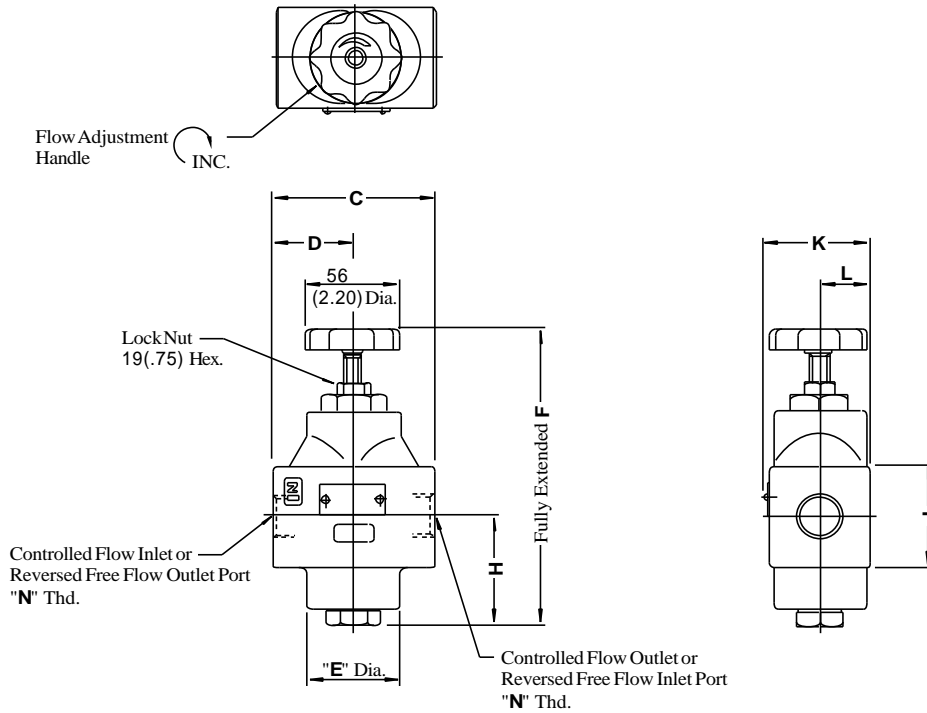
● Flow Adjustment

Slacken the lock nut and turn the flow adjustment knob anti-clockwise to throttle flow. After achieving satisfactory performance tighten the lock nut.



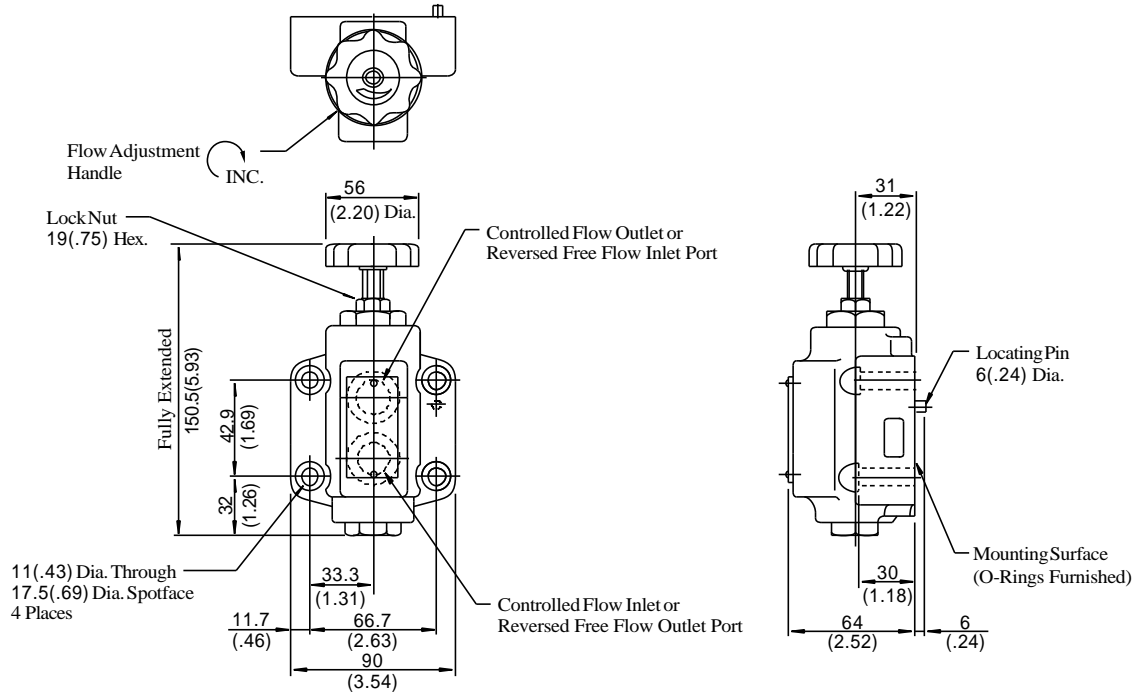
SRT/SRCT-03-50/5080/5090
 SRT/SRCT-06-50/5080/5090
 SRT/SRCT-10-50/5080/5090

DIMENSIONS IN
MILLIMETRES (INCHES)



| Model Numbers | Dimensions mm (Inches) | | | | | | | | Thd. Size |
|------------------|------------------------|--------|--------|--------|--------|---------|--------|--------|------------|
| | C | D | E | F | H | J | K | L | "N" Thd. |
| SRT/SRCT-03-50 | 72 | 36 | 44 | 150.5 | 53.5 | 38 | 46 | 22 | Rc 3/8 |
| SRT/SRCT-03-5080 | (2.83) | (1.42) | (1.73) | (5.93) | (2.11) | 38 Dia. | (1.81) | (.87) | 3/8BSP.F |
| SRT/SRCT-03-5090 | | | | | | | | | 3/8NPT |
| SRT/SRCT-06-50 | 100 | 50 | 58 | 180 | 66.5 | 62 | 64 | 31 | Rc 3/4 |
| SRT/SRCT-06-5080 | (3.94) | (1.97) | (2.28) | (7.09) | (2.62) | 62 Sq. | (2.52) | (1.22) | 3/4BSP.F |
| SRT/SRCT-06-5090 | | | | | | | | | 3/4NPT |
| SRT/SRCT-10-50 | 138 | 69 | 80 | 227 | 86 | 80 | 82 | 40 | Rc 1-1/4 |
| SRT/SRCT-10-5080 | (5.43) | (2.72) | (3.15) | (8.94) | (3.39) | 80 Sq. | (3.23) | (1.57) | 1-1/4BSP.F |
| SRT/SRCT-10-5090 | | | | | | | | | 1-1/4 NPT |

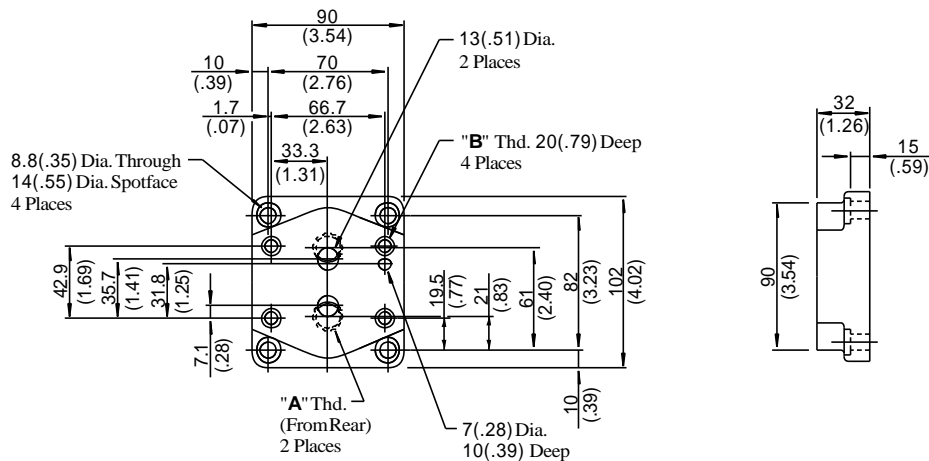
SRG/SRCG-03-50/5090



DIMENSIONS IN
MILLIMETRES (INCHES)

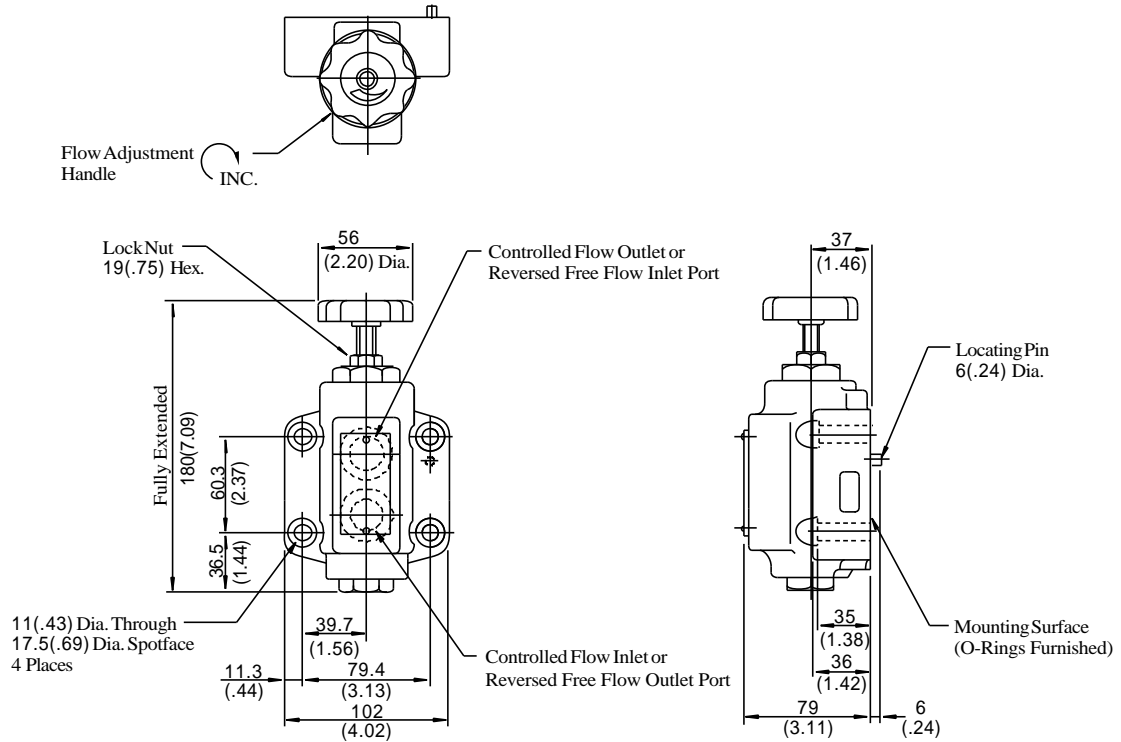
Sub-plate

CRGM-03-50/5080/5090



| Sub-plate Model Numbers | "A" Thd. | "B" Thd. |
|-------------------------|----------|------------|
| CRGM-03-50 | Rc 3/8 | M10 |
| CRGM-03-5080 | 3/8BSP.F | |
| CRGM-03-5090 | 3/8NPT | 3/8-16 UNC |
| CRGM-03X-50 | Rc 1/2 | M10 |
| CRGM-03X-5080 | 1/2BSP.F | |
| CRGM-03X-5090 | 1/2 NPT | 3/8-16 UNC |

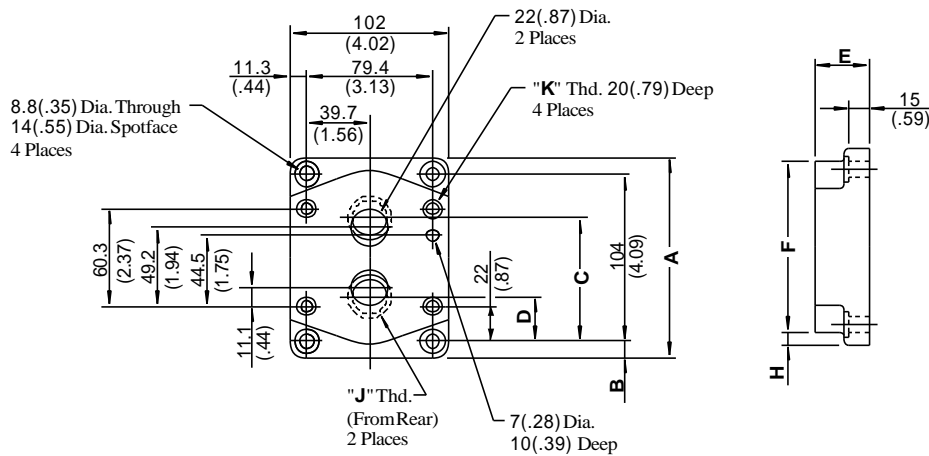
SRG/SRCG-06-50/5090



DIMENSIONS IN MILLIMETRES (INCHES)

Sub-plate

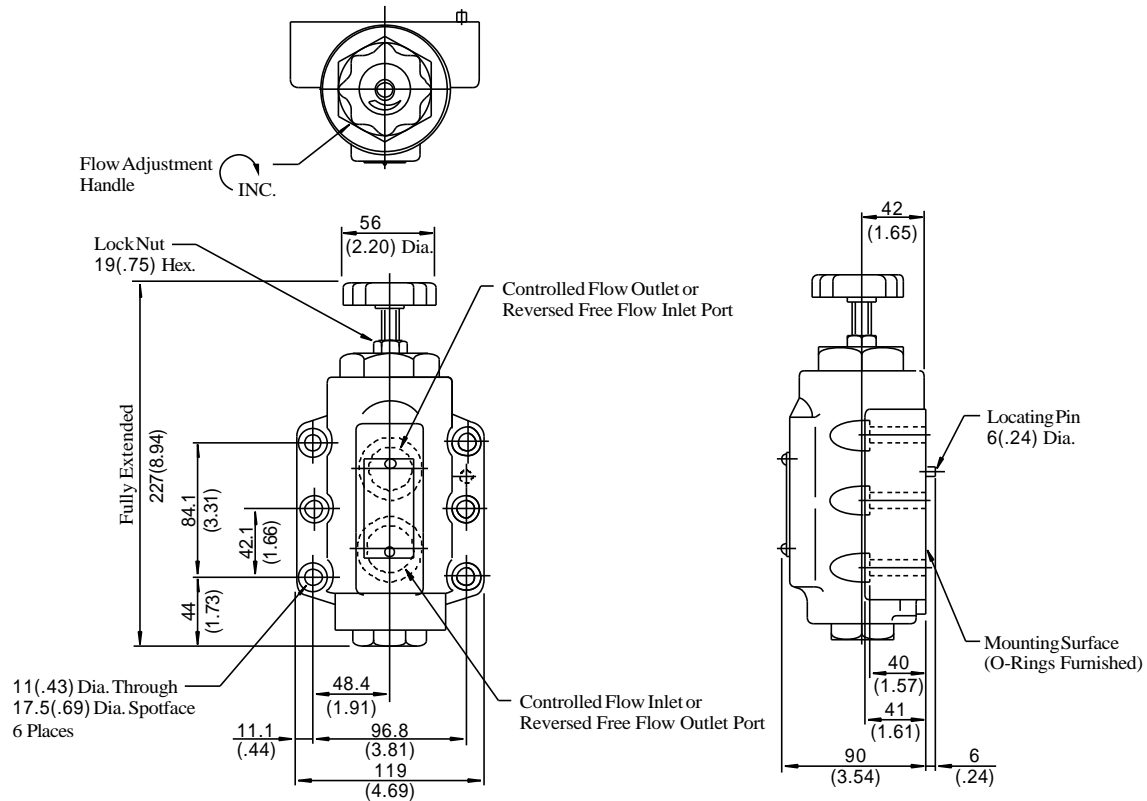
CRGM-06-50/5080/5090 06X



| Sub-plate Model Numbers | Dimensions mm (Inches) | | | | | | | "J" Thd. | "K" Thd. |
|----------------------------|------------------------|-------------|--------------|--------------|--------------|---------------|------------|-----------|----------|
| | A | B | C | D | E | F | H | | |
| CRGM-06-50 | | | | | | | | Rc 3/4 | M10 |
| CRGM-06-5080 | 124 (4.88) | 10 (.39) | 77 (3.03) | 27 (1.06) | 36 (1.42) | 110 (4.33) | 7 (.28) | 3/4 BSP.F | |
| CRGM-06-5090 | | | | | | | | 3/4 NPT | |
| CRGM-06X-50 | | | 82.3 (3.24) | 22 (.87) | 45 (1.77) | 136 (5.35) | 0 | Rc 1 | M10 |
| CRGM-06X-5080 | 136 (5.35) | 16 (.63) | 80 (3.15) | 24 (.94) | | | | 1 BSP.F | |
| CRGM-06X-5090 | | | 82.3 (3.24) | 22 (.87) | | | | 1 NPT | |

SRG/SRCG-10-50/5090

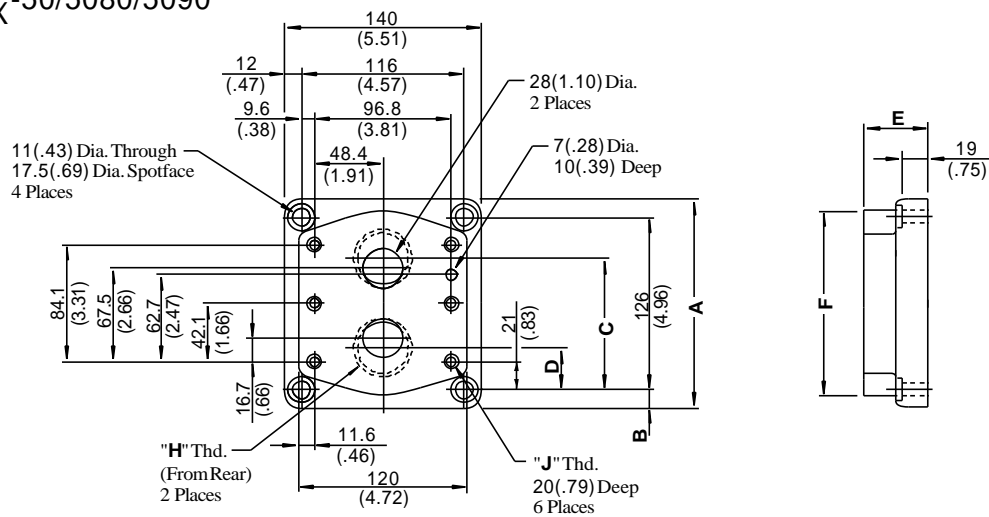
Mounting surface: ISO 5781-AJ-10-2-



DIMENSIONS IN
MILLIMETRES (INCHES)

Sub-plate

CRGM-10_{10X}-50/5080/5090



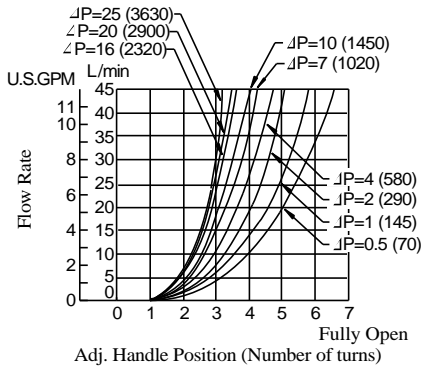
| Sub-plate Model Numbers | Dimensions mm (Inches) | | | | | | "H" Thd. | "J" Thd. |
|----------------------------|------------------------|----------------|---------------|--------------|--------------|---------------|------------|------------|
| | A | B | C | D | E | F | | |
| CRGM-10-50 | | | | | | | Rc 1-1/4 | M10 |
| CRGM-10-5080 | 150 (5.91) | 12 (.47) | 96 (3.78) | 30 (1.18) | 45 (1.77) | 135 (5.31) | 1-1/4BSP.F | |
| CRGM-10-5090 | | | | | | | 1-1/4NPT | 3/8-16 UNC |
| CRGM-10X-50 | | | | | | | Rc 1-1/2 | M10 |
| CRGM-10X-5080 | 177 (6.97) | 25.5 (1.00) | 104 (4.09) | 22 (.87) | 50 (1.97) | 167 (6.57) | 1-1/2BSP.F | |
| CRGM-10X-5090 | | | | | | | 1-1/2 NPT | 3/8-16 UNC |

Hydraulic Fluid: Viscosity 30 mm²/s (141 SSU), Specific Gravity 0.850

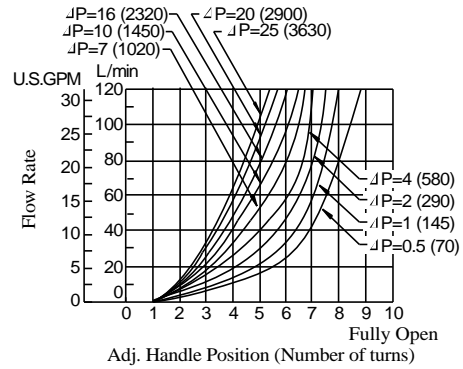
Metred Flow vs Adjustment Handle Revolutions

ΔP: Differential Pressure MPa (PSI)

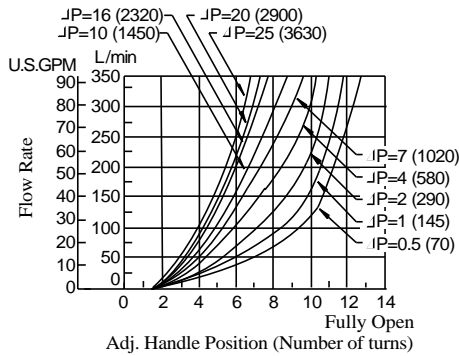
● SRT-03, SRCT-03 SRG-03, SRCG-03



● SRT-06, SRCT-06 SRG-06, SRCG-06

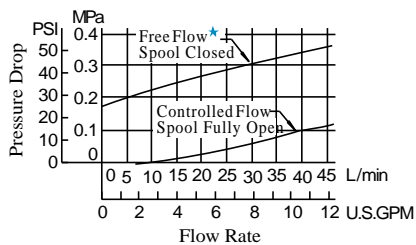


● SRT-10, SRCT-10 SRG-10, SRCG-10

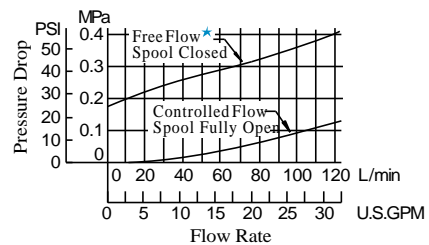


Pressure Drop

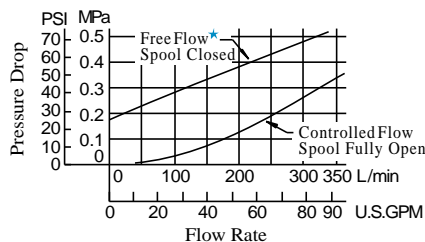
● SRT-03, SRCT-03 SRG-03, SRCG-03



● SRT-06, SRCT-06 SRG-06, SRCG-06



● SRT-10, SRCT-10 SRG-10, SRCG-10



★ Applicable only for one way restrictor (Model No. SRC*)