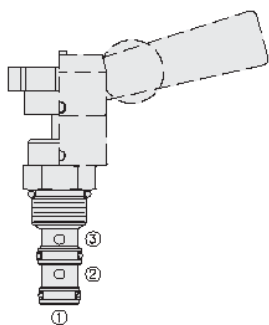
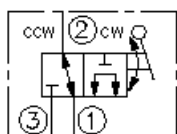




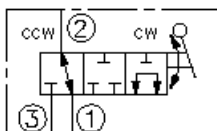
## Overview



### Symbol



TRANSITION:



### Description

The MR10-31 is a manually operated, 3-way, 2-position, screw-in, cartridge style, directional valve with adaptability to a variety of adjustment operators (order separately).

### Operation

In extreme counterclockwise position, ports 1 and 2 are open while port 3 is closed. In extreme clockwise position (90 degree rotation of stem), ports 1 and 3 are open while port 2 is closed. All ports are closed in transition.

### Features

- Two-position detent or infinite friction lock ordered separately.
- May be fully pressurized at all ports.
- Optional lock-down bracket.
- Heavy-duty construction.
- Industry common cavity.

## Ratings

### Pressure Ratings

Pressure rating 241 bar (3500 psi)

### Flow Ratings

Maximum internal leakage 164 ml/min (10 in<sup>3</sup>) - **Note:** At 241 bar (3500 psi)

### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- <b>Note:</b> With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- <b>Note:</b> With viton seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With polyurethane seals
Storage temperature	-60 to 71 °C (-76 to 160 °F)	
Ambient temperature	-60 to 71 °C (-76 to 160 °F)	

## Operating Parameters

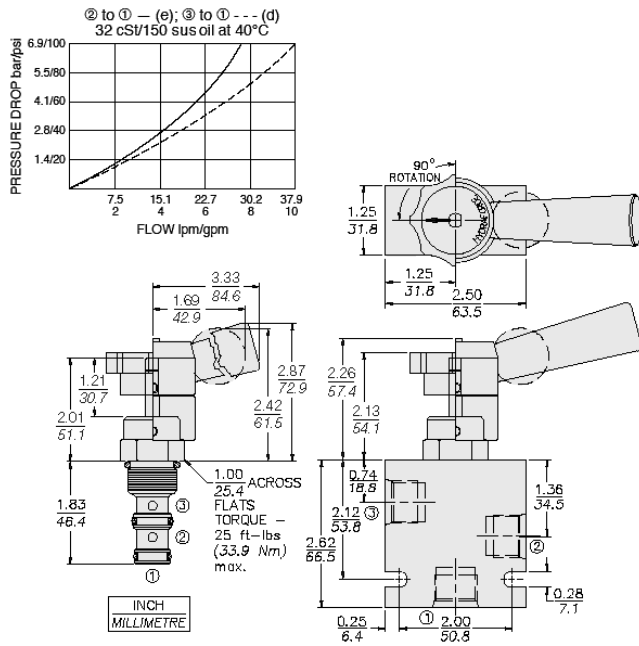
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406

## Properties

Unit weight	0.15 kg (0.33 lb)
Internal wetted surface area	141 cm <sup>2</sup> (21.8 in <sup>2</sup> )



## Performance



## Installation Specifications

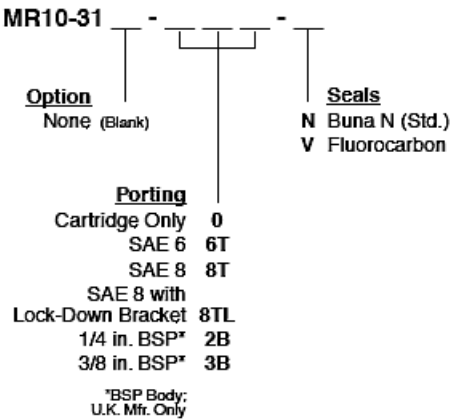
Cavity	VC10-3
Cartridge installation torque	32.5 to 35.3 N-m (24 to 26 ft-lb)
Orientation restriction	None

## Accessories

Seal kit	SK10-3X-MM	- <b>Note:</b> X=seal option
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Order Code



Model Options

MR10-31-H-J

H Line Body

CODE	DESCRIPTION
0	No Body
6T	Aluminum SAE 6
8T	Aluminum SAE 8
8TL	Aluminum SAE 8L
6TD	Ductile Iron SAE 6
8TD	Ductile Iron SAE 8
3B	Aluminum BSPP 3/8" (3)
3BD	Ductile Iron BSPP 3/8" (3)

J Seal

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon
P	Polyurethane
U	PPDI Urethane