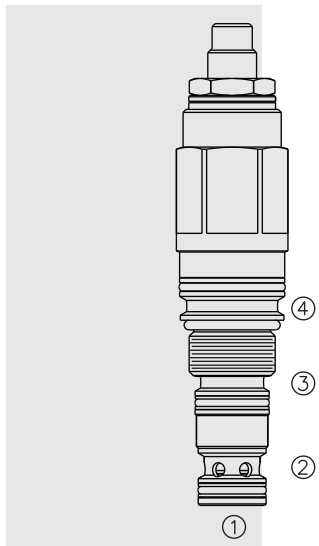


# UPCV10-F41 Pressure Unloading Valve



## DESCRIPTION

A screw-in, cartridge-style, internally piloted, pilot unloading valve with an internal check valve with optional fixed reload pressure ratios of 70% and 80% for use in accumulator type hydraulic systems.

## OPERATION

In its steady state, the **UPCV10-F41** blocks flow from port 3 to 4 and allows flow from port 1 to 2. On attainment of a pre-determined pressure at ports 2 and 3, the spool shifts to allow free flow from port 3 to 4, unloading the port 3 pilot. If pressure at port 2 drops to a level below the ratio established reload value, the valve will close, blocking flow from ports 3 to 4. The spring chamber is vented to port 4.

## FEATURES

- Internal check valve
- Optional fixed reload pressure ratios.
- Hardened precision spool and cage for long life.
- Choice of seal options.

## RATINGS

**Operating Pressure:** 207 bar (3000 psi) at ports 1, 2 and 3;  
 104 bar (1500 psi) at port 4

**Proof Pressure:** 482.6 bar (7000 psi)

**Burst Pressure:** 965.3 bar (14000 psi)

**Flow Rating: Port 3 to 4:** 0.8 to 7.6 lpm (0.2 to 2 gpm) Factory recommendation 1.9 lpm (5.05 gpm); **Port 1 to 2:** 45.4 lpm (12 gpm)

**Pressure Setting Range:** 41.4 to 206.8 bar (600 to 3000 psi)

**Loading and Unloading Pressure Ratio:** ±5%

**Temperature:** -40 to 100°C (-40° to 212°F) with standard Buna seals;  
 -26° to 204°C (-15° to 400°F) with fluorocarbon seals;  
 -54 to 107°C (-65 to 225°F) with polyurethane seals;  
 -54 to 107°C (-65 to 225°F) with standard urethane seals

**Filtration:** See page 9.010.1

**Fluids:** Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 sus); See Temperature and Oil Viscosity, page 9.060.1

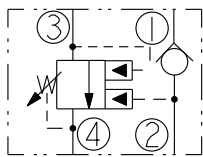
**Installation:** No restrictions; See page 9.020.1

**Cavity:** HVC10-F4; See page 9.110.1

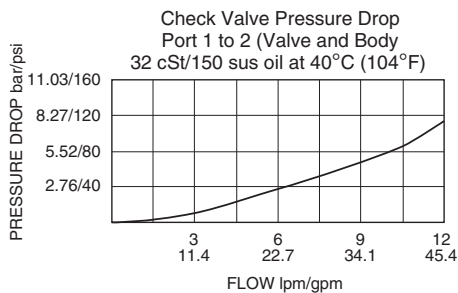
**Cavity Tool:** HCT10-F4XX; See page 8.600.1

**Seal Kit:** SK10-F4X-BMM; SK10-F4X-B00 (urethane seals); See page 8.650.1

## ISO SYMBOL

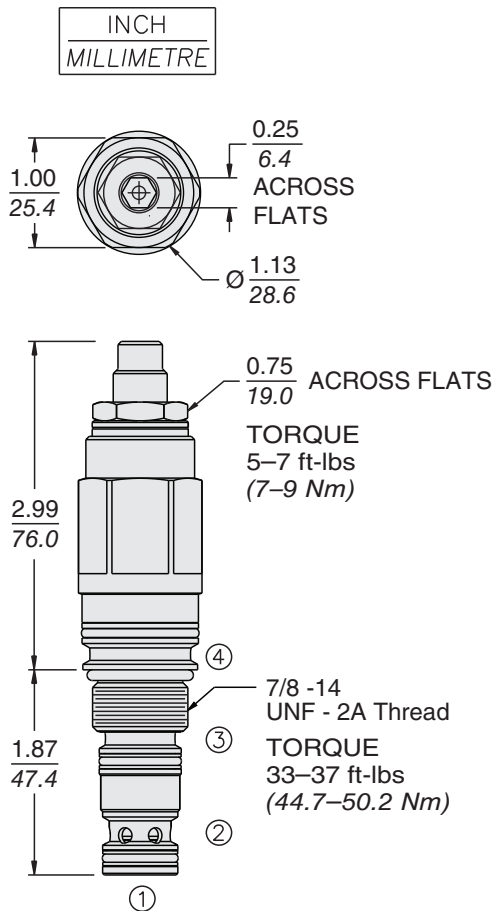


## PERFORMANCE (Cartridge Only)



# UPCV10-F41

## DIMENSIONS



## MATERIALS

**Cartridge:** Weight: 0.28 kg (0.61 lbs) Steel with hardened work surfaces. Zinc-plated exposed surfaces.

## TO ORDER

