

# Diesel Fuel Check Valves

## CKV and PRV Series

Murphy offers two types of diesel fuel line valves: check valves and pressure relief valves.

The **CKV series** check valves are in-line, one-way valves that prevent fuel from being siphoned back into an injector or injection pump which could delay a shutdown.

There are two types of check valves: CKV2336 and CKV1WPS. The CKV2336 has a 1/4 NPT threaded male connection on each end for connecting to fuel line fittings or hoses. The CKV1WPS check valve is typically mounted in the fuel bypass line of the last fuel injector. The CKV1WPS features a hollow bolt connection and a barbed 1/8 NPT connection for flex hose or fitting.

The **PRV series** pressure relief valves relieve overpressure in a fuel system usually caused by closing of a solenoid fuel valve. The PRV50 and PRV70 have a 1/4 NPT threaded connection on each end for connecting to fuel line fittings or hoses.



### Specifications

#### Materials

	Body	Seal	Spring
CKV2336	Brass	Poppet	SS
CKV1WPS	Brass	SS	SS
PRV50/PRV70	Brass	SS	SS

**Note:** SS=Stainless steel

#### Opening Pressure

CKV2336	4 psi (27)
CKV1WPS	2 psi (14)
PRV50	25 psi (172)
PRV70	70 psi (483)

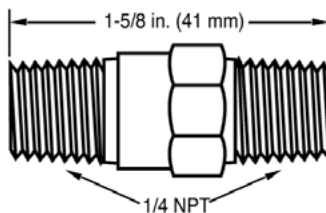
**Note:** metric (kPa) equivalents in parentheses

**Static Pressure (all):** 150 psi (1.03 MPa) maximum

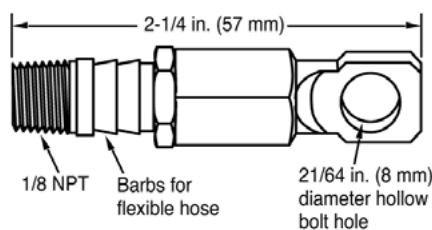
**Weight (all):** 1.3 oz. (40.5 g)

### Dimensions

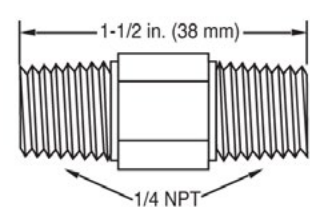
#### CKV2336



#### CKV1WPS



#### PRV50 and PRV70



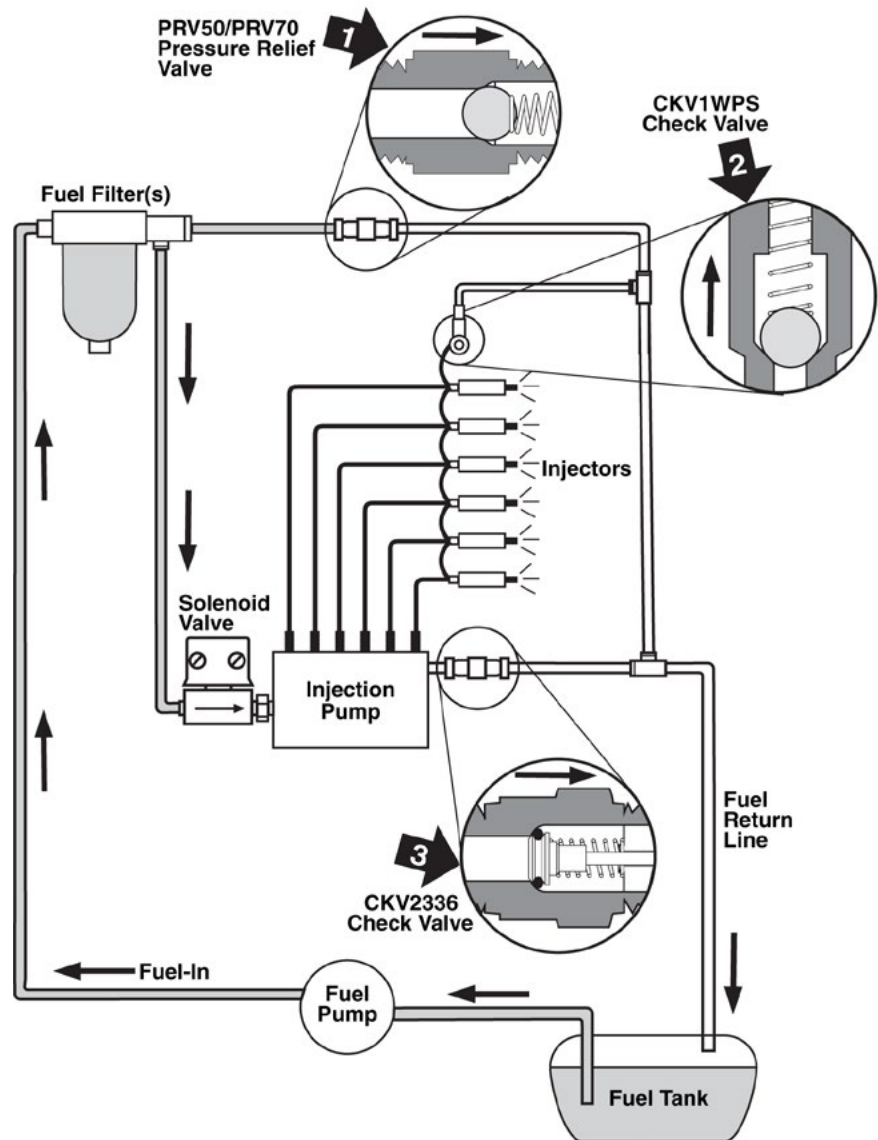
## Basic Operation

Murphy Check Valves and Pressure Relief Valves enhance the operation of diesel engine shut-down valves by reducing the time required for complete engine shutdown after the solenoid valve closes. The diagram at right shows a typical installation using CKV check valves and PRV pressure relief valves.

**All valves are shown closed.**

Check Valves close off the fuel return line(s) to prevent fuel or air from re-entering the injection system through the bypass line(s). Models **CKV2336 (3)** is an in-line valve. Model **CKV1WPS (2)** has a 21/64 in. (8 mm) banjo fitting that attaches to the return line of the final injector. All check valves allow fuel to flow away from the injectors but close to prevent fuel from flowing in the reverse direction.

The **PRV50** and **PRV70 (1)** relieve pressure buildup in the fuel system that can cause fuel filter canisters to burst. When the solenoid valve closes to stop the engine, the fuel transfer pump will continue to produce pressure as the engine slows down to stop. This pressure buildup, if not relieved, can cause fuel filter canisters or gaskets to leak. PRVs are installed in the bypass line from the fuel filter(s) to the fuel return line.



## How To Order

Part Number	Description	Notes
Specify Model Number	CKV2336	Valves
	CKV1WPS	
	PRV50	
	PRV70	

**Note:** There are no replacement parts.