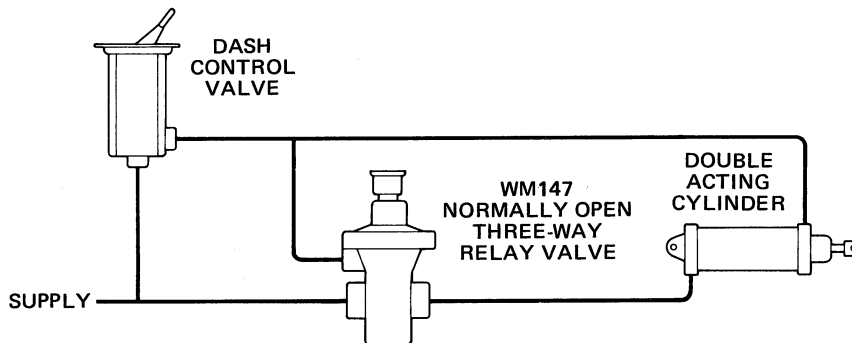
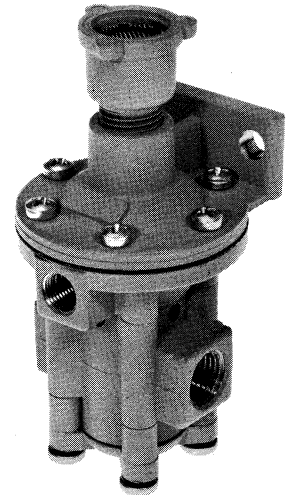
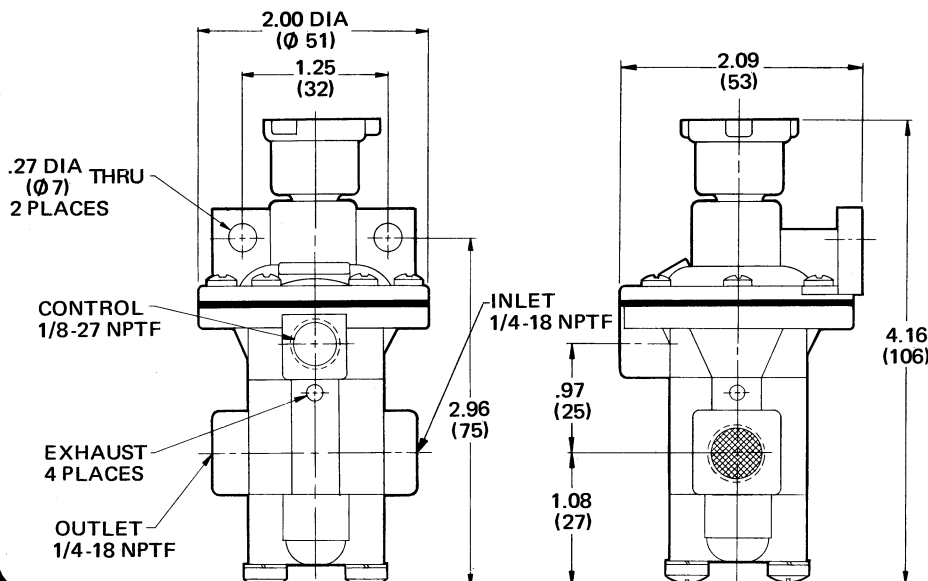
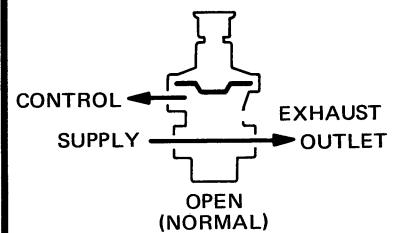
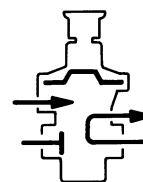
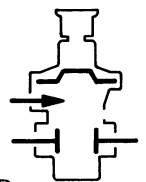
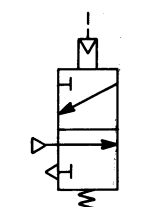
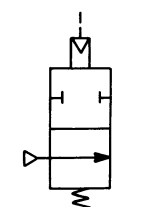


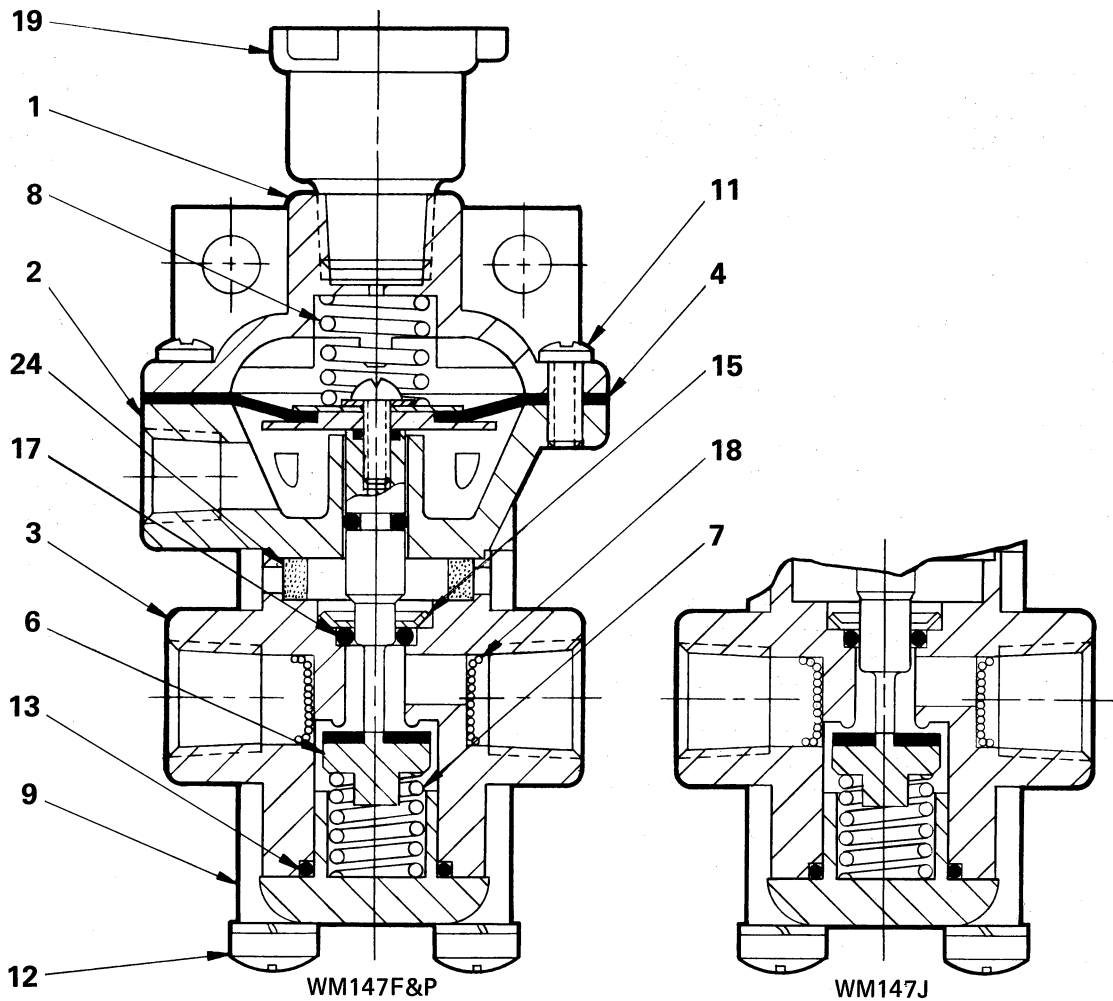
PRODUCT DESCRIPTION

DESCRIPTION A variety of normally open, non-compensating relay valves are available in the WM147 series. Control pressure is used to close these normally open valves; the required control pressure signal differs with each model in the WM147 series. The normally open WM147 relays are available either as two-way valves without an exhaust mode, or as three-way valves if the exhaust mode is desired. The WM147 series relays are noted for their compact size.

OPERATION Pilot control pressure is required to close the normally open WM147 relay valves. When a sufficient control pressure is applied, a diaphragm in the valve extends. The poppet seats and blocks the flow of air from the supply port to the outlet port. If the valve is a three-way model, it will release air at the outlet port through four exhaust vents. When the pilot control pressure decays below the required level, the valve returns to the normally open position.

APPLICATION The normally open WM147 relays are installed in control circuits that can provide sufficient control pressures for closing the valves. These relay valves are used in industrial and vehicular applications that require a normally open relay with average flow capacity. The three-way models are frequently used as reversing relays for two-speed axles. As shown in the installation schematic below, the three-way models are also used with a two-position control valve in applications where a four-way function is desired. The normally open, two-way relays are often installed as circuit controls for driveline retarders.

TYPICAL INSTALLATION

EXTERNAL CONFIGURATION

**NORMALLY
OPEN
RELAY
VALVE**
FUNCTIONAL DIAGRAM

WM147F&P

WM147J

I.S.O. SYMBOL
WM147F&P

WM147J




SPECIFICATIONS

PORT SIZES: Inlet & Outlet 1/4-18 NPTF
 Control. 1/8-27 NPTF
 Exhaust (WM147 F & P) Unthreaded
 MAXIMUM OPERATING PRESSURE. 150 PSI (1034,2 kPa)
 OPERATING TEMPERATURE* . . . -20°F to 200°F (-28,9°C to 93,3°C)
 FLOW RATING. 35 SCFM @ 100 PSI (1,0 m³/min @ 690 kPa)
 MOUNTING. Integral Bracket on Cover and Two 1/4" Fasteners
 MOUNTING ATTITUDE Optional
 MATERIALS: Body Castings Die Cast Zinc Alloy
 Stem Aluminum
 Diaphragm Fabric-Reinforced Buna N
 Poppet Buna N with Aluminum Backing
 O-Rings. Buna N
 NET WEIGHT. 15 oz. (0,4 kg)

*For continuous operation beyond this range, contact factory.

PARTS IDENTIFICATION		
ITEM	DESCRIPTION	QTY.
1	UPPER BODY	1
2	CENTER BODY	1
3	LOWER BODY	1
* 4	DIAPHRAGM ASSEMBLY	1
* 6	POPPET	1
7	SPRING	1
8	SPRING	1
9	CAP	1
11	SCREW	6
12	SCREW	4
* 13	O-RING	1
* 15	RETAINING RING	1
* 17	O-RING	1
18	SCREEN	2
19	WM111A BREATHER	1
* 24	FILTER (WM147F & P)	1

Service the WM147F with repair kit number 114154. Service the WM147J with repair kit number 114160. Service the WM147P with repair kit number 114161. To replace the WM111A breather (Item 19), order part number 111411.
 *Asterisk designates parts included in repair kit 114154, 114160, or 114161.

TO ORDER, SPECIFY				
WM147 _____				
		Model Number	Suffix	
PART NUMBER _____				
SELECT SUFFIX & PART NUMBER BELOW				
SUFFIX	PART NUMBER	DESCRIPTION	CONTROL PRESSURE	
			TO CLOSE	TO REOPEN
WM147 F	111531	Normally Open, Three-way	30-50 PSI (207-345 kPa)	15-30 PSI (103-207 kPa)
WM147 J	111538	Normally Open, Two-way	30-40 PSI (207-276 kPa)	15-30 PSI (103-207 kPa)
WM147 P	111542	Normally Open, Three-way	10-30 PSI (69-207 kPa)	5-10 PSI (35-69 kPa)