

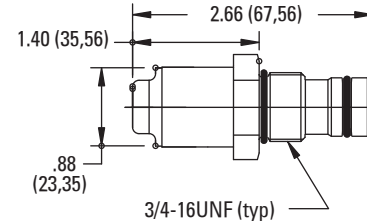
Visual Service Indicator Kits

Visual Service Indicator Kit Choices

Part No.	Use with Bypass Valve Pressure of:	Description	Where Used
P569632	50 psi / 3.5 bar	35 psi/2.4 bar indicator kit* auto reset pop-out button	HPK02, HPK03, HPK04, HPK05
P569633	90 psi / 6.2 bar	70 psi/4.8 bar indicator kit* auto reset pop-out button	HPK02, HPK03, HPK04, HPK05
P567988	50 psi / 3.5 bar	35 psi/2.4 bar indicator kit* auto reset pop-out button with thermal lockout and surge control	HPK02, HPK03, HPK04, HPK05
P567989	90 psi / 6.2 bar	70 psi/4.8 bar indicator kit* auto reset pop-out button with thermal lockout and surge control	HPK02, HPK03, HPK04, HPK05

* Note: Above kits include indicator and P573495 mounting block.

Visual (Mechanical) Indicators (with auto reset pop-out button)

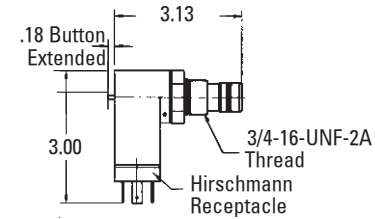


Visual/Electrical Service Indicator Kit Choices

Part No.	Use with Bypass Valve Pressure of:	Description	Where Used
P569634	50 psi / 3.5 bar	35 psi/2.4 bar indicator kit* Hirschmann receptacle 115 VAC/28 VDC, 2 amps	HPK02, HPK03, HPK04, HPK05
P569635	90 psi / 6.2 bar	70 psi/4.8 bar indicator kit* Hirschmann receptacle 115 VAC/28 VDC, 2 amps	HPK02, HPK03, HPK04, HPK05
P567986	50 psi / 3.5 bar	35 psi/2.4 bar indicator kit* with thermal lockout and surge control, Hirschmann receptacle, 115 VAC/28 VDC, 2 amps, 4 pin DIN 43650	HPK02, HPK03, HPK04, HPK05
P567987	90 psi / 6.2 bar	70 psi/4.8 bar indicator kit* with thermal lockout and surge control, Hirschmann receptacle, 115 VAC/28 VDC, 2 amps, 4 pin DIN 43650	HPK02, HPK03, HPK04, HPK05

* Note: Above kits include indicator and P573495 mounting block.

AC/DC Electrical Indicators (with aluminum electrical housing)



Electrical Service Indicators

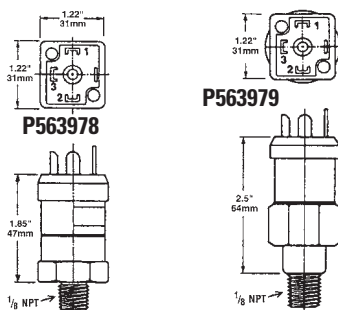
Electrical Service Indicator Choices

All electric models have a maximum operating temperature of 250°F/ 114°C.

Part No.	Use with Bypass Valve Pressure of:	Description	Where Used	Illustration
P162400	25 psi/ 172 kPa	DC/single post. Normally open.	HBK04, HBK05, HMK04/24, HMK05/25, SP80/90	Style A
P163601	15 psi/ 103 kPa	DC/single post. Normally open.	HBK04, HBK05, HMK04/24, HMK05/25, SP80/90	Style A
P163642	5 psi/ 34 kPa	DC/single post. Normally open.	HBK04, HBK05, HMK04/24, HMK05/25, SP80/90	Style A
P163839	25 psi/ 172 kPa	DC/single post. Normally closed.	HBK04, HBK05, HMK04/24, HMK05/25, SP80/90	Style A
P165194	50 psi/ 345 kPa	DC/single post. Normally open.	HMK03, HMK04/24, HMK05/25, FPK04, SP80/90	Style A
P167455	50 psi/ 345 kPa	DC/single post. Normally closed.	HMK04/24, HMK05/25, FPK04, SP80/90	Style A
P574967	50 psi/ 276 kPa	DC 2-wire. Normally closed. Gold contacts. Microprocessor compatible.	HMK04/24, HMK05/25, SP80/90	Style E
P171087	50 psi/ 345 kPa	DC 2-wire. Packard Weatherpack connector. Normally open.	HMK03, HMK04/24, HMK05/25, SP80/90	Style B
P171143	25 psi/ 172 kPa	DC 2-wire. Cannon connector. Normally open.	HBK04, HBK05, HMK03, HMK04/24, HMK05/25, SP80/90	Style B
P171966	22 psi/ 150 kPa	AC/DC. 0.5A resistive, 0.2A inductive. Normally open.	FIK	at right
P173893	50 psi/ 345 kPa	DC 3-wire. Gold alloy contacts. Microprocessor compatible. White: normally open; Red: normally closed; Black: common.	HMK04/24, HMK05/25, SP80/90	Style F
P173944	25 psi/ 172 kPa	AC/DC 3-wire. Silver alloy contacts. White: normally open; Red: normally closed; Black: common.	HBK04, HBK05, HMK03, HMK04/24, HMK05/25, SP80/90	Style C
P174396	50 psi/ 345 kPa	AC/DC 3-wire. Silver alloy contacts. White: normally open; Red: normally closed; Black: common.	HMK03, HMK04/24, HMK05/25, SP80/90	Style C
P761056	87 psi/ 592 kPa	AC/DC Normally open or closed. 30 VAC or 30 VDC max. 0.5A resistive, 0.2A inductive.	FPK02	see FPK02 section
P563978	15 psi/103.4 kPa or 25 psi / 172.5 kPa	Return indicator, field adj.* or No Bypass	SP15/25, SP50/60, SP80/90, SP100/120, TT15/30/60	at right
P563979	5 psi / 34.5 kPa / .34 bar	Suction indicator, Hg field adj.* or No Bypass	SP15/25, SP50/60, SP80/90, SP100/120, TT15/30/60	at right

* NOT PRESET: Setting adjustable for desired application

#1 Common; #2 Normally Closed;
#3 Normally Open

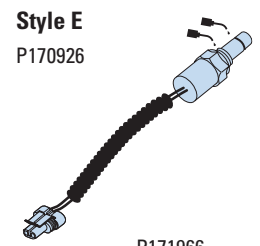
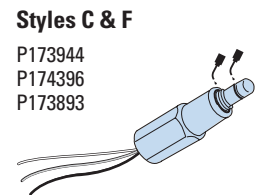
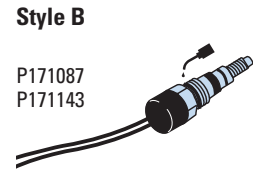
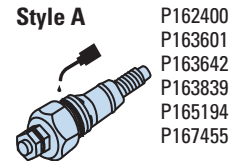
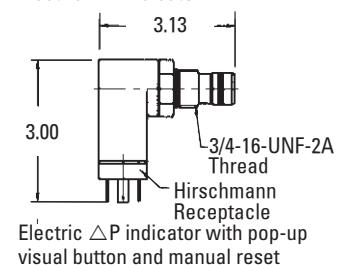


Adjustment screw located in center of elec. prongs

Instructions

1. Remove DIN adaptor
2. Remove small brass screw
3. Using 1/8" allen wrench adjust clockwise to increase set point/counter-clockwise to decrease set point
4. NO / NC

Electric ΔP indicator

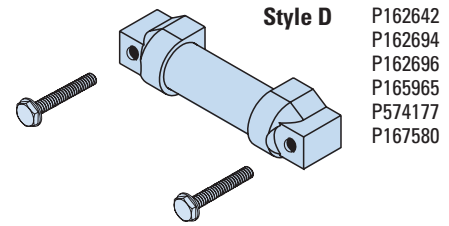


Visual Service Indicators

Visual Service Indicator Choices

All non-electric models have a maximum operating temperature of 180°F/ 82°C.

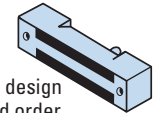
Part No.	Use with Bypass Valve Pressure of:	Where Used	Illustration
P162642	15 psi/103 kPa	HBK04, HBK05, HMK04/24, HMK05/25	Style D
P162694	5 psi/34 kPa	HBK04, HBK05	Style D (old style)
P162696	25 psi/172 kPa	HBK04, HBK05, HMK04/24, HMK05/25	Style D
P164315	50 psi/345 kPa	HPK02, HPK03, HPK04, HPK05	see HPK02 section
P165965	25 psi/345 kPa	HMK03, HMK04/24, HMK05/25	Style D
P574177	50 psi / 345 kPa	HMK03, HMK04/24	Style D
P166603	50 psi/345 kPa (reverse flow)	HPK04	see HPK04 section
P167580	50 psi/345 kPa	HMK04/24, HMK05/25	Style D
P171958	17 psi/116 kPa	FIK	at left
P171945	72 psi/493 kPa	FPK02	see FPK02 section
P575334	25 psi/172 kPa	HBK05, HMK03, HMK05/25, HNK04/05, HMK04/24, FLK90, FLK110, FLK125	Style H
P575335	50 psi/345 kPa	HBK05, HMK03, HMK05/25, HNK04/05, HMK04/24, FLK90, FLK110, FLK125	Style H



Style D
P162642
P162694
P162696
P165965
P574177
P167580

NOTE on Style D Indicators:

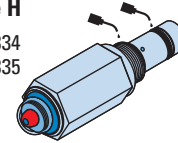
Our old square-style visual indicator has been improved in a design revision. If you have this style and order a replacement, you will receive the new rounded Style D shown above. **Exception:** P162694 is still made per the old style.



P171958

Style H

P575334
P575335



Indicators

Indicator Choices

Indicator	Connector Style	Donaldson Part No.	Where Used
Pressure Gauge, 0 - 60 psi Models			
25 psi / 172 kPa	NA	X011059	WL15, WL16
50 psi / 345 kPa	NA	X011060	WL15, WL16

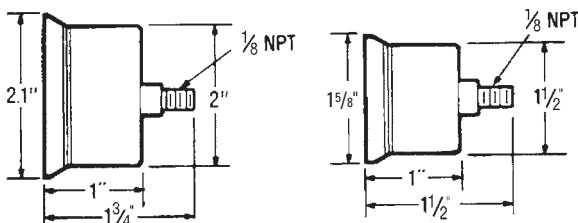
Indicator Choices

Indicator	Connector Style	Donaldson Part No.	Where Used
Electrical Models			
18 psi / 124 kPa	Hirschman	X011061	WL15, WL16
35 psi / 241 kPa	Hirschman	X011064	WL15, WL16
18 psi / 124 kPa	Brad Harrison	X011065	WL15, WL16
35 psi / 241 kPa	Brad Harrison	X011066	WL15, WL16

Visual Pressure Gauges

Visual Pressure Gauge Choices

Part No.	Pressure Range	Function
P563296	0 to 100 PSI Numeric Scale	Return
P563297	0 to 100 PSI Color Coded (15 PSI)	Return
P563298	0 to 100 PSI Color Coded (25 PSI)	Return
P563299	0 to -20 Hg	Suction
P563300	0 to 30 PSI Color Coded (15 PSI)	Return



P171956 for FIK series
-1 to +5 bar
14.5 to 72.5 psi
-100 to +500 kPa

P171953
G 1/8

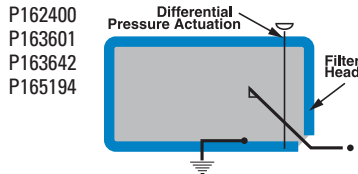
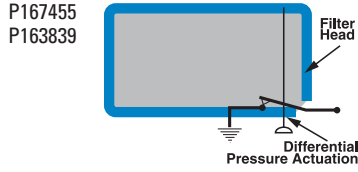
Replacement Indicators (Visual, Electrical and Visual / Electrical)

Replacement Indicator Choices

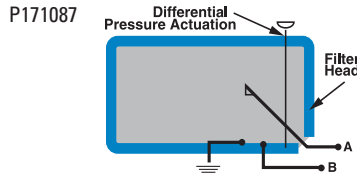
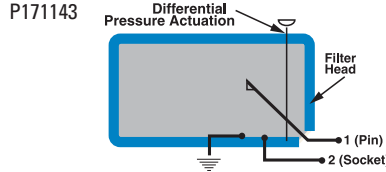
Part No.	Use with Bypass Valve Pressure of	Connector Style	Seal Material	Thermal Lockout	Surge Control	Where Used
Electrical Indicators						
P572355	15 psid/1.04 bar	Hirschman	Buna-N	No	No	W023, W061
P572359	35 psid/2.41 bar	Hirschman	Buna-N	No	No	W023, W061, W041, W440, W350, W451, W620
P572361	35 psid/2.4 bar	Brad Harrison	Buna-N	No	No	W023, W061, W041, W440, W350, W451, W620
P572369	70 psid/4.8 bar	Hirschman	Buna-N	No	No	W041, W440, W350, W451, W620
Visual / Electrical Indicators						
P572323	15 psid/1.04 bar	Hirschman	Buna-N	No	No	W023, W061
P572342	15 psid/1.04 bar	3-wire flying leads	Buna-N	No	No	W023, W061
P572327	35 psid/2.41 bar	Hirschman	Buna-N	No	No	W023, W061, W041, W440, W350, W451, W620
P569638	35 psid/2.4 bar	Hirschman	Viton	Yes	No	HPK02, HPK03, HPK04, HPK05
P572329	35 psid/2.4 bar	Brad Harrison	Buna-N	No	No	W023, W061, W041, W440, W350, W451, W620
P572349	35 psid/2.4 bar	3-wire flying leads	Buna-N	No	No	W023, W061, W041, W440, W350, W451, W620
P572384	35 psid/2.4 bar	Hirschman	Buna-N	Yes	Yes	W023, W061, W041, W440, W350, W451, W620
P572385	35 psid/2.4 bar	Brad Harrison	Buna-N	Yes	Yes	W041, W440, W350, W451, W620
P567458	35 psid/2.4 bar	Hirschman	Viton	Yes	Yes	W023, W061, W041, W440, W350, W451, W620, HPK02, HPK03, HPK04, HPK05
P569639	70 psid/4.8 bar	Hirschman	Viton	Yes	No	W440, W350, W451, W620, HPK02, HPK03, HPK04, HPK05
P567459	70 psid/4.8 bar	Brad Harrison	Buna-N	Yes	Yes	W440, W350, W451, W620, HPK02, HPK03, HPK04, HPK05
P572320	70 psid/4.8 bar	Hirschman	Buna-N	Yes	Yes	W440, W350, W451, W620
P572373	70 psid/4.8 bar	Hirschman	Buna-N	Yes	No	W440, W350, W451, W620
P572387	100 psid/6.89 bar	Hirschman	Buna-N	Yes	Yes	W440, W350, W451
Visual Indicators						
P572345	15 psid/1.04 bar	N/A	Buna-N	No	No	W023, W061
P572347	35 psid/2.41 bar	N/A	Buna-N	No	No	W023, W061, W041, W440, W350, W451, W620
P572348	35 psid/2.41 bar	N/A	Buna-N	Yes	Yes	W023, W061, W041, W440, W350, W451, W620
P567456	35 psid/2.4 bar	N/A	Buna-N	Yes	Yes	W023, W061, W041, W440, W350, W451, W620, HPK02, HPK03, HPK04, HPK05
P572319	70 psid/4.8 bar	N/A	Buna-N	Yes	Yes	W440, W350, W451, W620
P567457	70 psid/4.8 bar	N/A	Viton	Yes	Yes	W440, W350, W451, W620, HPK02, HPK03, HPK04, HPK05
P572353	100 psid/6.9 bar	N/A	Buna-N	Yes	No	W440, W350, W451
P572354	100 psid/6.89 bar	N/A	Viton	Yes	Yes	W440, W350, W451
P569636	35 psid/2.4 bar	N/A	Viton	No	No	HPK02, HPK03, HPK04, HPK05
P569637	70 psid/4.8 bar	N/A	Viton	No	No	HPK02, HPK03, HPK04, HPK05

Electrical Schematics

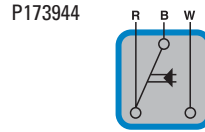
Style A: Single Post DC Indicator (Maximum: 200 mA DC @ 30 VDC)



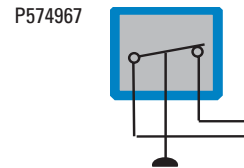
Style B: DC 2-Wire Indicator (Maximum: 200 mA DC @ 30 VDC)



Style C, F: AC/DC 3-Wire Indicator (Maximums: 2 amps @ 24 VDC or 2 amps @ 110 VAC)



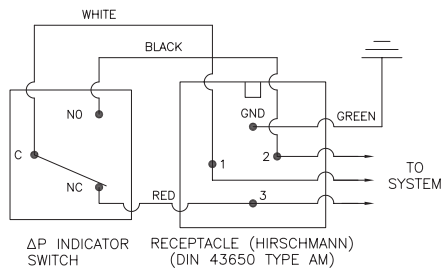
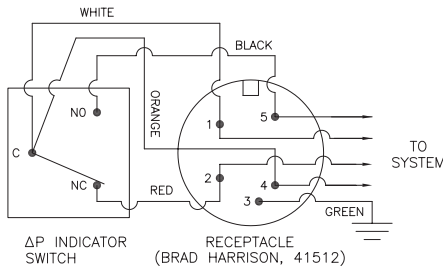
Style E: DC 2-Wire Indicator (Maximum: 100 mA DC @ 30 VDC)



All dimensions are shown in millimeters [inches].

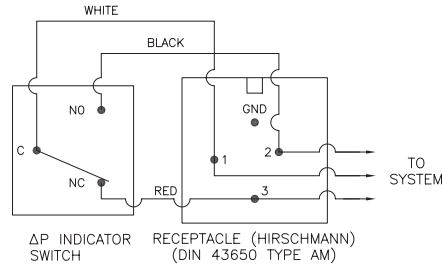
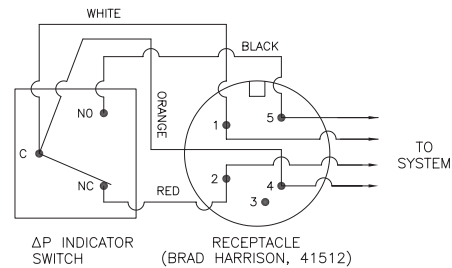
Indicator Switch Schematic Wiring Diagram

Aluminum Electrical Housings



Note: The female plug (connector) is to be furnished by customer.

Plastic Electrical Housings



Note: The female plug (connector) is to be furnished by customer.

Differential Indicators:

Indicators are designed to actuate at approximately 80% of bypass valve cracking pressure. It is recommended that an indicator with a bypass setting of 100 psid is used with a non-bypass housing.

Surge Control:

This optional feature is used to dampen pressure surges or spikes to avoid premature actuation of the indicator. Surge control delays the indicator response.

Thermal Lockout:

The Thermal Lockout prevents premature signaling of a bypass condition created by viscous fluid during cold start-ups. Normal indicator actuation capability is resumed once the operating temperature of the fluid reaches approximately 80° F.