



# INDICATORS

## MICRODELTA® DIFFERENTIAL PRESSURE DEVICES

### OPTIONAL MICRODELTA® DIFFERENTIAL PRESSURE DEVICES

- Visual Indicator (Pop-Up Button)
- Visual Indicator (Pop-Up Button) with thermal lockout
- Electrical Indicator with three wire leads
- Electrical Indicator with DIN 43650 connector

### SPECIFICATIONS/NOTES

**Actuation Pressure** 35 psi (2.4 bar) or  
100 psi (6.90 bar)

**Maximum System Pressure** 6,000 psi

**Typical Burst Pressure** 22,000 psi

**Temperature Range**

**Nitrile Seals:**  
-65°F to 225°F (-55°C to 107°C)

**Fluorocarbon Seals:**  
-15°F to 400°F (-26°C to 205°C)

**Ethylene Propylene Seals:**  
-70°F to 250°F (-57°C to 121°C)

**Fluid Compatibility**

**Nitrile Seals:** Petroleum based fluids, water-oil emulsions, water-glycol

**Fluorocarbon Seals:** Synthetic lube oils

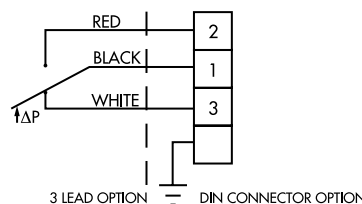
**Ethylene Propylene Seals:** Phosphate ester fluids, water-glycol

**Housing Materials** Aluminum

**Finish** Clear Anodize

**Electrical Switch Ratings** 7 amps resistive, 4 amps inductive, 28 VDC, 250 VAC

**Electrical Switch Circuit**



**Installation**

Microdelta® differential pressure devices are installed on the Purolator housings in a modified SAE J524-10 port.



# FEATURES

## MAGNETICALLY OPERATED

Microdelta® differential pressure devices utilize a magnetically operated actuation mechanism to indicate when the preset element differential pressure has been reached. The magnetically attractive forces act through solid metal walls of the indicator housing precluding the need for external dynamic seals and their associated fluid leakage paths. Rare earth magnets are used in Microdelta differential pressure devices for their strong magnetic forces and good shock and vibration resistance.

## NO DOWNSTREAM LEAKAGE

Microdelta differential pressure devices utilize an internal seal on the pressure sensing piston, separating the fluid upstream of the filter element from the downstream fluid stream, thereby preventing bypass leakage which could permit contamination to pass downstream and cause “silting” of the indicator sensing mechanism.

## THERMAL LOCKOUT AVAILABLE

At start-up, hydraulic fluids are cold and more viscous, causing a higher initial  $\Delta P$  across the filter element. An optional thermal lockout is available to prevent false actuations at cold start. There is no indicator actuation below 85°F (29°C), the indicator is in transition between 85°F and 100°F, and there is positive indication above 100°F (38°C).



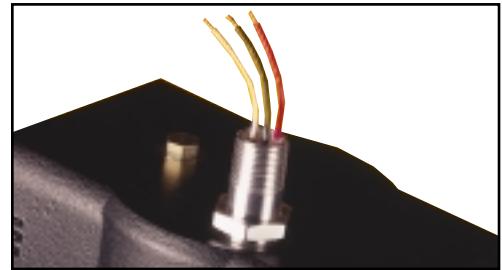


## REDUCE OPERATING COSTS

**MICRODELTA**® differential pressure devices sense the differential pressure directly across the filter element. At a preset  $\Delta P$ , the indicator will actuate, signalling the need to change the filter element. This permits maximum use of the element, requiring element changing only when the full dirt holding capacity is reached, rather than changing elements on a periodic time basis which may result in premature disposal of “still useful” elements. Microdelta differential pressure devices actually reduce plant operating costs by signalling the need for element replacement **only when** the elements have removed their designed dirt holding capacity.

### ELECTRICAL INDICATOR WITH THREE WIRE LEADS

Provides a 1/2" NPT connection to facilitate making a junction with three wires to carry an electrical signal to a remote location. Frequently used when a connection to a remote sensing device, alarm, horn or light is desired.



### ELECTRICAL INDICATOR WITH DIN 43650 CONNECTOR

Accepts DIN conduit to facilitate making a junction with three wires to carry an electrical signal to a remote location. Frequently used when a connection to a remote sensing device, alarm, horn or light is desired.



### VISUAL INDICATOR WITH AND WITHOUT THERMAL LOCKOUT

The pop-up indicator extends a red button approximately .200" to indicate that the element is clogged or that the set differential pressure has been exceeded. The button will remain extended until a clean element is installed and the button is manually reset.



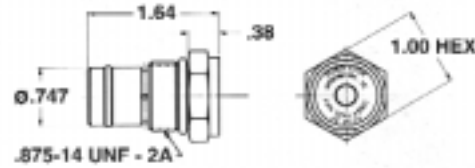
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# ORDERING AND DIMENSIONAL INFORMATION

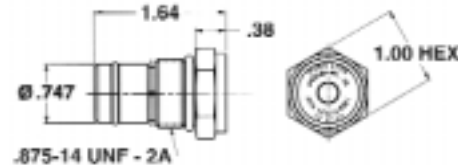
## VISUAL INDICATOR WITH POP-UP BUTTON

35 PSID		100 PSID
PART NUMBER	SEAL MATERIAL	PART NUMBER
500JA3503	Nitrile	500JA10003
500JA3502	Ethylene Propylene	500JA10002
500JA3501	Fluorocarbon	500JA10001



## VISUAL INDICATOR WITH POP-UP BUTTON AND THERMAL LOCKOUT

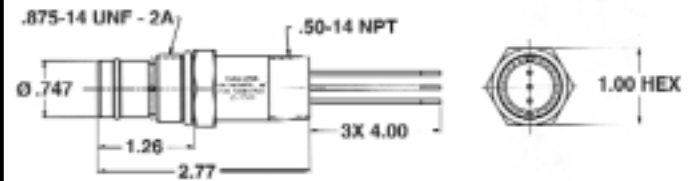
35 PSID		100 PSID
PART NUMBER	SEAL MATERIAL	PART NUMBER
500LA3503	Nitrile	500LA10003
500LA3502	Ethylene Propylene	500LA10002
500LA3501	Fluorocarbon	500LA10001



*Prevents actuation below 85°F, permits actuation above 115°F*

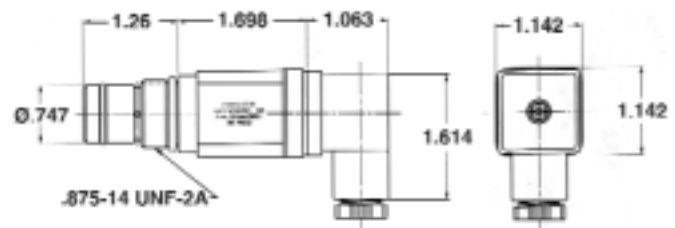
## ELECTRICAL INDICATOR WITH THREE WIRE LEADS

35 PSID		100 PSID
PART NUMBER	SEAL MATERIAL	PART NUMBER
500KA3503	Nitrile	500KA10003
500KA3502	Ethylene Propylene	500KA10002
500KA3501	Fluorocarbon	500KA10001



## ELECTRICAL INDICATOR WITH DIN 43650 CONNECTOR

35 PSID		100 PSID
PART NUMBER	SEAL MATERIAL	PART NUMBER
500MA3503	Nitrile	500MA10003
500MA3502	Ethylene Propylene	500MA10002
500MA3501	Fluorocarbon	500MA10001



All dimensions in inches. To convert to millimeters, multiply by 25.4.