

## Electronic Pressure Monitors



DADCO offers two types of Electronic Pressure Monitors to monitor nitrogen gas pressure during operation: An Electronic Pressure Monitor Sensor or a Control Panel with Pressure Monitor. For maximum versatility both types have multiple configurations to best suit your application. Pressure Monitor sensor options are detailed on pages 2-3.

### Electronic Pressure Monitor Configuration


To customize your Electronic Pressure Monitor, select the base, sensor and cable accessory that best suits your application.

**Example shown:**  
**90.421.CP.S.EDS.G**  
 With 90.454.M12.S Cable





**Cable Accessory**

	90.454.M12.S.____		90.454.M12.L.____
Attachment Orientation: S = Straight		Attachment Orientation: L = Elbow	
Cable Length: 02 = 2 m, 05 = 5 m, 10 = 10 m			
Applicable for EDS, DPS & DPT sensor options			



**Guard Option**

 G

**Pressure Monitor Sensor Options**

			
EDS	DSK	DPS	DPT

**Base Options**

	
JB	CP

GM specific option available, reference bulletin B16106.

### Ordering Example:

**90.421. CP. S. EDS. G**

**Model Number** ————

**Base Option** ————

JB = Block only (Bleed Valve, Filler Valve and Rupture Disk not included),  
 CP = Block with Bleed Valve, Filler Valve and Rupture Disk

**Guard Option** ————

**Pressure Monitor Sensor Options**  
 EDS = Electronic Pressure Switch, DSK = Piston Pressure Switch, DPS = Dial Pressure Switch,  
 DPT = Electronic Pressure Transmitter

**Fitting Connection**  
 N = No Fitting Supplied, S = 90.505.115 (ORFS),  
 D = 90.508.115 (D-24), B = 90.805.115 (Zip),  
 L = MINILink® Fitting. Default is N.

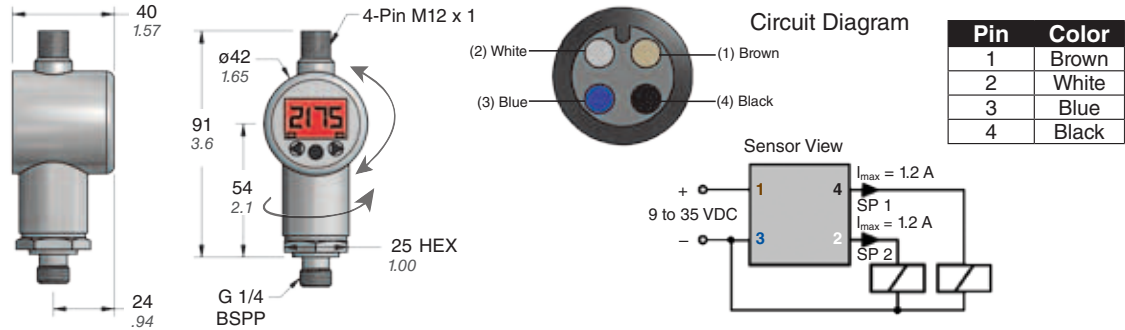
B10105B

### Electronic Pressure Monitor Sensors

The Electric Pressure Monitor has four sensor options available: EDS, DSK, DPS and DPT. Review the details provided below to select the correct option for your application.

#### EDS – Electronic Pressure Sensor

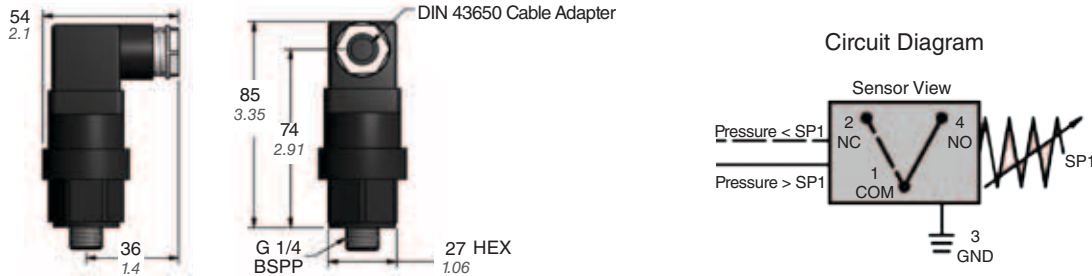
The EDS features a LED digital display that reads pressure value in bar, psi or MPa. The sensor display face rotates 270° while the body rotates 340°. For added versatility, the sensor also features two switching outputs that can be easily set with face mounted push buttons. *Note: EDS uses 90.454.M12 style cable accessory.*



- |                  |   |   |
|------------------|---|---|
| <b>Features:</b> | • Measuring Range: 0-400 bar (0-5800 psi) | • Output: (2) PNP Pin 2, 4                |
|                  | • Supply Voltage: 9 – 35 VDC              | • Electrical Connection: 4 – pole M12 x 1 |
|                  | • Switch Rating: 1.2 A max                | • Current Consumption: 35 mA max          |

#### DSK – Piston Pressure Switch

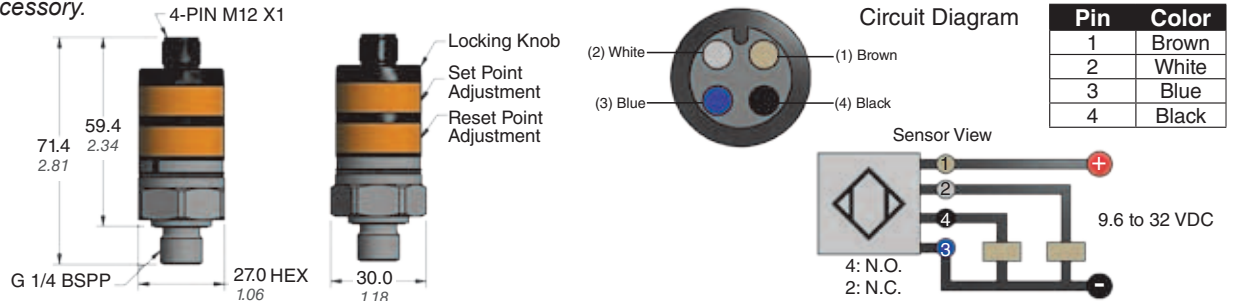
The DSK switch uses a pressure input to operate a SPDT switch as the pressure rises or falls across a set value. The manually adjusted switch monitors a preset pressure. This switch can be set at the factory and wired to shut down a press operation or activate an alarm once pressure is above or below the set-point. *Note: DSK includes a DIN 43650 cable adapter.*



- |                  |   |  |
|------------------|---|--|
| <b>Features:</b> | • Max Pressure Rating: 600 bar (8700 psi) | • Range Tolerance: ± 5 bar (± 72.5 psi)              |
|                  | • Output: SPDT Switch                     | • Switch Adjustment Range: 50-200 bar (725-2900 psi) |
|                  | • Electrical Connection: DIN 43650        | • Switch Rating: 1 AMP at 250 VAC, 4 AMP at 24 VDC   |

#### DPS – Dial Pressure Switch

The DPS features two manually adjustable dials. The upper dial is the set pressure and the lower dial is the reset pressure. When the system pressure increases to the set value, Output 1 (pin 4) turns on, and Output 2 (pin 2) turns off. When the system pressure decreases to the Reset Pressure, Output 1 turns off and Output 2 turns on. *Note: DPS uses 90.454.M12 style cable accessory.*



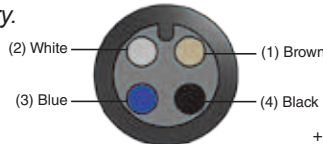
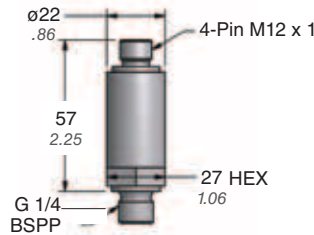
- |                  |  |  |
|------------------|--|--|
| <b>Features:</b> | • Measuring Range: 0-400 bar (0-5800 psi)        | • Electrical Connection: 4 - Pole M12 x 1            |
|                  | • Operating Voltage: 9.6 - 32 VDC                | • Current Consumption: < 25 mA                       |
|                  | • Setting Point Range: 20-400 bar (290-5800 psi) | • Switch Output: PnP (1 N.O. & 1 N.C. Complementary) |
|                  | • Reset Point Range: 12-392 bar (175-5685 psi)   | • Switch Point Accuracy: < ± 2.5%                    |
|                  | • Switch Rating: 500 mA                          |  |

# Electronic Pressure Monitors

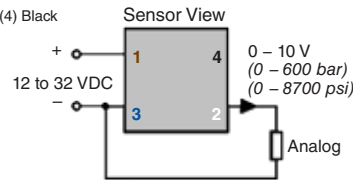
## DPT – Electronic Pressure Transducer

DADCO's DPT unit is a pressure transducer, emitting an analogue signal that provides a range of voltage. The DPT converts pressure input to a 0 – 10 V output, the voltage output can then be scaled by a press controller to read the pressure value.

Note: DPT uses 90.454.M12B style cable accessory.



Circuit Diagram



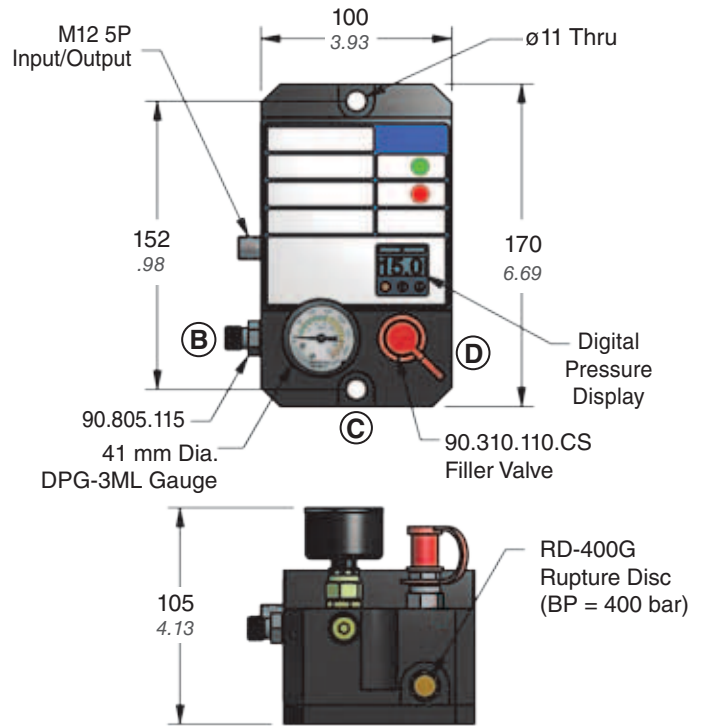
Pin	Color
1	Brown
2	White
3	Blue
4	Black

- |                  |                                      |   |
|------------------|--------------------------------------|---|
| <b>Features:</b> | • Supply Voltage: 12 – 32 VDC        | • Max Pressure Rating: 600 bar (8700 psi) |
|                  | • Accuracy: 0.5% Full Scale          | • Electrical Connection: 4 – Pin M12 x 1  |
|                  | • Output Signal: Analog (0-10 Volts) | • Current Consumption: <15 mA             |

## 90.406.421 Control Panel with Pressure Monitor



The 90.406.421. Control Panel with Pressure Monitor is used to fill and monitor the pressure of linked nitrogen gas springs from outside the die. The panel is adjustable to read pressure in bar, psi or MPa and includes a digital pressure sensor with programmable output to signal if pressure drops below a preset level. This panel conforms to Toyota standard number D-PACPS-B.



<b>DADCO</b> 90.406.421 Digital Control Panel		<b>UL US LISTED</b> Process Control Equipment E475453 Assembled in the USA with foreign and domestic parts	
M12B Cordset Only 90.454.M12B			
	Voltage	12 - 24 DC	100 - 120 AC 50 - 60 HZ
	Current	80 - 40 mA	60 mA
	1 BRN	⊕	L1
	3 BLU	⊖	L2
	2 WHT	12 - 24 DC 2A	100 - 120 AC 1A
4 BLK	Pressure On	Ground	
5 GR/YW	Pressure Off	Ground	
Green LED = Output 2-4 Closed			
Nitrogen Only: Pcharge = 15 MPa at 20°C TS = 4°- 71°C, PS = 35 MPa			

This product is Listed to applicable UL Standards and requirements by UL

Reference B10143 for additional information

Cable Accessory	
 90.454.M12B.S.____ Attachment Orientation: S = Straight	 90.454.M12B.L.____ Attachment Orientation: L = Elbow
Cable Length: 02 = 2 m, 05 = 5 m, 10 = 10 m	

### Ordering Example:

90.406.421. B. \_\_\_\_\_

**Plate Style**  
B= English plate style

**Fitting Location**  
B, C, D, BD

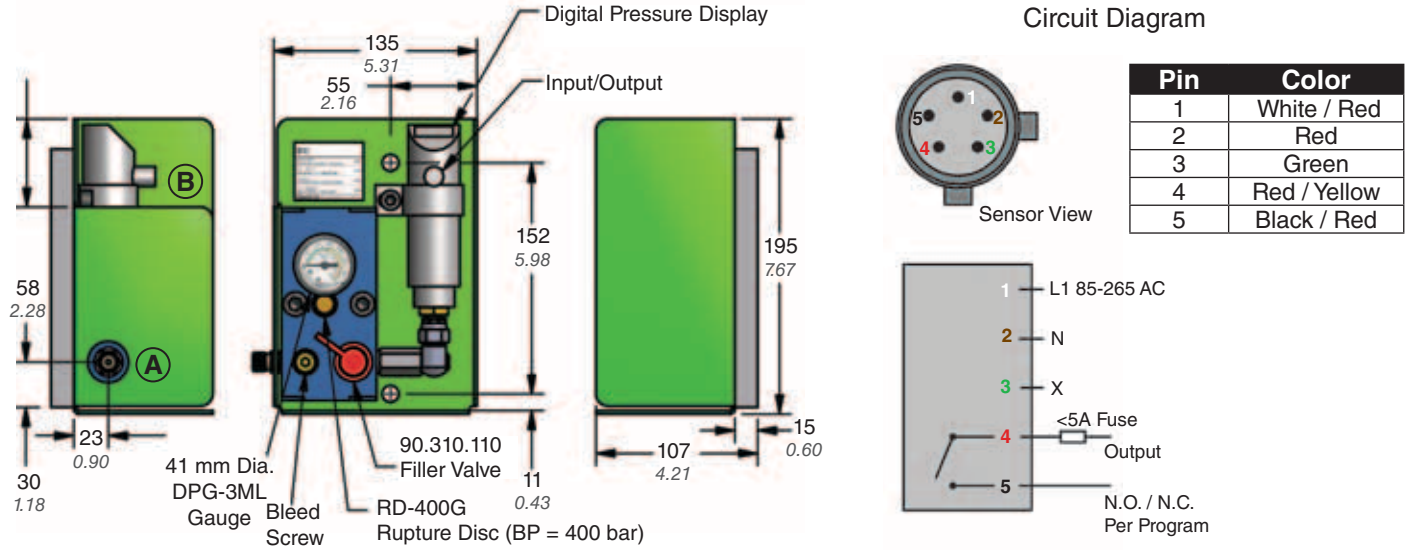
\*For Japanese plate order 90.406.421. A. \_\_\_\_\_

- |   |   |
|---|---|
| • <b>Output:</b> SPST N.O. (Normally Open)                      | • <b>Max Pressure Rating:</b> 350 bar (5076 psi)                    |
| • <b>Supply Voltage:</b> 12 – 24 VDC, 80 – 130 VAC (50 – 60 Hz) | • <b>Electrical Connection:</b> M12 (B – Code), 5 Wire, Reverse Key |

**90.416. Control Panel**

The 90.416 Control Panel with Pressure Monitor is used to fill and monitor the pressure of linked nitrogen gas springs from outside the die. The panel has a protective guard option and includes an EPD digital pressure sensor which is adjustable to read pressure in bar, psi or MPa. The panel offers programmable output to signal when pressure drops below a preset level; one additional switching output is included. This panel conforms to Toyota standard number D-PACPS-C.

Note: 90.416. uses 90.454.M5P. cordset.



- Features:**
- Output: SPST N.O. / N.C. (Normally Open / Normally Closed)
  - Supply Voltage: 90 – 240 VAC (45 – 65 Hz)
  - Max Pressure Rating: 400 bar (5800 psi)
  - Electrical Connection: 1/2" – 20UNF 2A

**Control Panel with Pressure Monitor Ordering Example**

To customize your Control Panel with Pressure Monitor, follow the ordering codes below. Fitting Location examples are shown on page 3.

**Ordering Example:**

**90.406.421.A. B. 02**

Model Number: 90.406.421.A. B. 02

Fitting Location: B = Side Port

Cable Length: 02 = 2 m

Note: Additional fitting options available, contact DADCO.

**Ordering Example:**

**90.416. A3B. N. EPD. S05**

Model Number: 90.416. A3B. N. EPD. S05

Gauge Type: A3B = Three Sided

Guard Type: N = None

Fitting Type: B = Zip Standard

Cable Length: S05 = 5 m

Sensor Type: EPD = Digital Pressure Sensor

Fitting Location: A = Side Port

**Cable Accessory:**

**90.454. M12B. S. 02**

Model Number: 90.454. M12B. S. 02

Cable: M12B Cordset

Attachment Orientation: S = Straight

**Cable Accessory:**

**90.454. M5P. S05**

Model Number: 90.454. M5P. S05

Cable: M5P Cordset

Cable Length: S05 = 5 m

