

# Pressure/Vacuum Alarms, and Alarms with Retransmission Output

- Low Voltage AC/DC Powered
- 0.5 A Relays with Status LEDs
- Analog Output Available
- Output Test Function

### Ranges and Resolution

See range table for available engineering units  
 Ranges and engineering units are factory set

### Accuracy

Standard: ±0.25% of full scale ±1 least significant digit  
 Optional: HA ±0.1% FS ±1 LSD (most ranges)

### Display

4 digit LCD, 0.5" H, 0.25" H alphanumeric lower display  
 4 readings per second nominal display update rate  
 BL models: Red LED backlight on when gauge is on.  
 LCD and bi-color (red/green) LED alarm indicators

### Controls

Keypad to setup, configure, and display alarm trip points, acknowledge or toggle alarms

### Alarm Outputs

Programmable dual form C (SPDT) relay contacts for HI/LO, HI/HI, LO/LO, normal or reverse acting with 1% deadband, or adjustable trip and reset points for each relay, manual or auto acknowledge.

1A/24VDC, 0.5A/115VAC, non-inductive

120 milliseconds typical response time

### DAR Retransmission Output Options

- High or Low Pump Pressure Alarm
- Tank Level Monitor Plus Alarm
- Automated Leak-Down Testing
- Vacuum Pump Alarm

Updated approximately 16 times per second

-I: Current output, 4-20 mA DC

-V: Voltage output, 0-2 VDC

-BV: Voltage output, ±2 VDC

### Power

8 to 24 VAC 50/60 Hz or 9 to 32 VDC

Designed for continuous operation

Use WMPSK power supply kit to operate on 115 VAC

### Housing

Standard: 3.38" W x 2.88" H x 1.65" D

Aluminum case, plastic bezel, front

NEMA 4X: 3.5" W x 3.0" H x 2.0" D plastic case

Add approximately 0.75" to height for pressure fitting and 1" to depth for strain relief

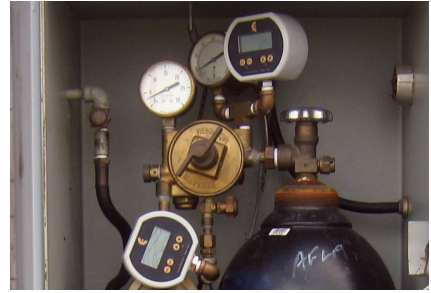
### Connection and Material

¼" NPT male, 316L SS wetted parts

### Environmental

Operating temperature: -4 to 185°F (-20 to 85°C)

Compensated temperature: 32 to 158°F (0 to 70°C)



Substation Transformer Nitrogen Blanketing

**Info Quick Link**  
[cecomp.com/alarms](http://cecomp.com/alarms)



F16DAR

To Order			
Model Series	Range	Analog Output	Options
See table below	See range table	DAR models only	See options list

Model	Ranges	NEMA	Backlight	Calibration	Setup	Alarm Type and Options	Analog Output
F16ADA	Vacuum to 5000 psi, gauge, absolute, compound, bipolar			Pass code protected calibration via keypad, zero, span, linearity	Keypad programmable alarm configuration, setpoints, test level	2 SPDT relays, field programmable configuration, 1% deadband or adjustable hysteresis	none
F16ADABL			Red LED				
F16ADAN		4X					
F16ADANBL		4X	Red LED				
F16DAR	Vacuum to 5000 psi, gauge, absolute, compound, bipolar			Pass code protected calibration via keypad, zero, span, linearity	Keypad programmable alarm configuration, setpoints, test level	2 SPDT relays, field programmable configuration, 1% deadband or adjustable hysteresis	-I 4-20 mA -V 0-2 VDC -BV ±2 VDC
F16DARBL			Red LED				
F16DARN		4X					
F16DARNBL		4X	Red LED				

## Gauge Accessories and Options

Cases	Description
DPG-OK3	Orange Pelican® case. 11.8" x 8.8" x 5.2", holds 1 to 3 gauges with room for fittings
DPG-OK6	Orange Pelican® case. 16.7" x 11.2" x 6.1", holds 1 to 6 gauges with room for fittings
Accessories	Description
RB	Protective rubber boot, orange, not for NEMA models.
NC	NIST certificate; 5 test points, test date, NIST traceability documentation
CD	5 point factory calibration data with test date
SCR145S	Filter screen fitting keeps debris out of gauge sensor. 303 SS body, 100 micron 304 SS screen. Recommended for food vacuum packaging applications. Vacuum to 4000 psi.
CON145S	Quick connector allows installation or removal of gauge without tools. 304 stainless steel. Vacuum to 5000 psi
WMPSK	Wall mount power supply kit, 115VAC/12VDC. For AD, DR, and DAR series.
Options	Description—add option code to end of model number
-CC	Moisture resistant circuit board coating. Standard on DPG2000.
-HA	High accuracy, ±0.1% FS ±1 LSD. Some ranges require 4 digit display. Not available with 3 psi sensor, compound, vacuum, or bipolar ranges.
-PM	Panel mount, 4.1" x 4.1", not for NEMA models.
-SM	Surface mount plate. Battery powered models only, not for NEMA models.
-MC	Metal bezel instead of plastic. Synthetic oil resistant. Std. on DPG2000, not for NEMA models.
-TP	Top gauge port. Battery-powered gauges only.
-CS	Case stiffener to reinforce bottom of case for tire pressure applications. Std. on DPG2000.



Pelican—Reg TM  
 Pelican Products, Inc.



RB Rubber Boot



DPG-OK6



DPG-OK3



SCR145S  
Screen



CON145S  
Connector



-TP  
Top Port



-PM  
Panel Mount



-CS  
Case Stiffener



WMPSK  
Power Supply



NC  
NIST Cert.

Cecomp maintains a constant effort to upgrade and improve its products. Specifications are subject to change without notice. Consult factory for your specific requirements.

## Ranges

Most engineering units are shown below. See price list or consult factory for additional or custom engineering units.

InHg/psig	Range Code	PSI
-29.9 inHg-15 psi	-30V15PSIG	-14.7-15.0
-29.9 inHg-100 psi	-30V100PSIG	-14.7-100
-29.9 inHg-200 psi	-30V200PSIG	-14.7-200
Pounds/sq. inch	Range Code	PSI
0-3 psi	3PSIG	3.0
0-5 psi	5PSIG	5.0
15-0 psia	15PSIA	15.0 abs
0-14.7 psi vac	15PSIGVAC	-14.7
-14.7-15.0 psi	±15PSIG	-14.7-15.0
0-15 psi	15PSIG	15.0
30-0 psia	30PSIA	30.0 abs
0-30 psi	30PSIG	30.0
0-60 psi	60PSIG	60.0
100-0 psia	100PSIA	100 abs
-14.7-100 psi	-15V100PSIG	-14.7-100
0-100 psi	100PSIG	100
-14.7-200 psi	-15V200PSIG	-14.7-200
0-200 psi	200PSIG	200
0-300 psi	300PSIG	300
0-500 psi	500PSIG	500
0-1000 psi	1000PSIG	1000
0-2000 psi	2000PSIG	2000
0-3000 psi	3000PSIG	3000
0-5000 psi	5000PSIG	5000
inches Hg (0°C)	Range Code	PSI
0-6 inHg	6INHGG	3.0
0-10 inHg	10INHGG	4.9
30-0 inHg abs	30INHGA	14.7 abs
0-29.9 inHg vac	30INHGVAC	-14.7
-29.9-30.0 inHg	±30INHGG	±14.7
0-30 inHg	30INHGG	14.7
60-0 inHg abs	60INHGA	29.5 abs
0-60 inHg	60INHGG	29.5
0-120 inHg	120INHGG	58.9
200-0 inHg abs	200INHGA	98.2 abs
0-200 inHg	200INHGG	98.2
-29.9-200 inHg	-30V200INHGG	-14.7-98.2
0-400 inHg	400INHGG	196
-29.9-400 inHg	-30V400INHGG	-14.7-196
0-600 inHg	600INHGG	295
0-1000 inHg	1000INHGG	491
Inches H <sub>2</sub> O (20°C)	Range Code	PSI
0-85 inH <sub>2</sub> O	85INH2OG	3.1
0-140 inH <sub>2</sub> O	140INH2OG	5.1
400-0 inH <sub>2</sub> O abs	400INH2OA	14.5 abs
0-408 inH <sub>2</sub> O vac	400INH2OVAC	-14.7
±408 inH <sub>2</sub> O	±400INH2OG	±14.7
0-400 inH <sub>2</sub> O	400INH2OG	14.5
850-0 inH <sub>2</sub> O abs	850INH2OA	30.7 abs
0-850 inH <sub>2</sub> O	850INH2OG	30.7
Feet H <sub>2</sub> O (20°C)	Range Code	PSI
0-7 ftH <sub>2</sub> O	7FTH2O	3.0
0-12 ftH <sub>2</sub> O	12FTH2O	5.2
0-35 ftH <sub>2</sub> O	35FTH2O	15.2
0-70 ftH <sub>2</sub> O	70FTH2O	30.3
0-140 ftH <sub>2</sub> O	140FTH2O	60.7
0-230 ftH <sub>2</sub> O	230FTH2O	99.7
0-480 ftH <sub>2</sub> O	480FTH2O	208
0-700 ftH <sub>2</sub> O	700FTH2O	303
0-1150 ftH <sub>2</sub> O	1150FTH2O	498
0-2300 ftH <sub>2</sub> O	2300FTH2O	995
0-4600 ftH <sub>2</sub> O	4600FTH2O	1991
0-6900 ftH <sub>2</sub> O	6900FTH2O	2986
Ounces/sq. inch	Range Code	PSI
0-50 oz/in <sup>2</sup>	50ZING	3.1
0-80 oz/in <sup>2</sup>	80ZING	5.0
240-0 oz/in <sup>2</sup> abs	240ZINA	15.0 abs
0-235 oz/in <sup>2</sup> vac	240ZINVAC	-14.7
-235-240 oz/in <sup>2</sup>	±240ZING	-14.7-15.0
0-240 oz/in <sup>2</sup>	240ZING	15.0
0-480 oz/in <sup>2</sup> abs	480ZINA	30.0 abs
0-480 oz/in <sup>2</sup>	480ZING	30.0
mm H <sub>2</sub> O (20°C)	Range Code	PSI
0-2100 mmH <sub>2</sub> O	2100MMH2OG	3.0
0-3500 mmH <sub>2</sub> O	3500MMH2OG	5.0

3.5 digit display indicates up to 19.99, 199.9, or 1999. Some ranges may require models with 4 digit display.

cm H <sub>2</sub> O (20°C)	Range Code	PSI
0-200 cmH <sub>2</sub> O	200CMH2OG	2.8
0-210 cmH <sub>2</sub> O	210CMH2OG	3.0
0-350 cmH <sub>2</sub> O	350CMH2OG	5.0
1000-0 cmH <sub>2</sub> O abs	1000CMH2OA	14.2 abs
0-1000 cmH <sub>2</sub> O vac	1000CMH2OVAC	14.2 vac
±1000 cmH <sub>2</sub> O	±1000CMH2OG	±14.2
0-1000 cmH <sub>2</sub> O	1000CMH2OG	14.2
0-2000 cmH <sub>2</sub> O	2000CMH2OG	28.4
0-2100 cmH <sub>2</sub> O	2100CMH2OG	29.9
kiloPascals	Range Code	PSI
0-20 kPa	20KPAG	2.9
0-35 kPa	35KPAG	5.1
100-0 kPa abs	100KPAA	14.5 abs
0-101 kPa vac	100KPAVAC	-14.7
-101-100 kPa	±100KPAG	-14.7-14.5
0-100 kPa	100KPAG	14.5
200-0 kPa abs	200KPAA	29.0 abs
0-200 kPa	200KPAG	29.0
0-400 kPa	400KPAG	58
700-0 kPa abs	700KPAA	102 abs
-101-700 kPa	-100V700KPAG	-14.7-102
0-700 kPa	700KPAG	102
-101-1400 kPa	-100V1400KPAG	-14.7-203
0-1400 kPa	1400KPAG	203
0-2000 kPa	2000KPAG	290
0-3500 kPa	3500KPAG	508
0-7000 kPa	7000KPAG	1015
MegaPascal	Range Code	PSI
-0.1-1.4 MPa	-0.1V1.4MPAG	-14.7-203
0-1.4 MPa	1.4MPAG	203
0-2 MPa	2MPAG	290
0-3.5 MPa	3.5MPAG	508
0-7 MPa	7MPAG	1015
0-14 MPa	14MPAG	2031
0-20 MPa	20MPAG	2901
0-35 MPa	35MPAG	5076
Millibar	Range Code	PSI
0-200 mbar	200MBARG	2.9
0-350 mbar	350MBARG	5.1
1000-0 mbar abs	1000MBARA	14.5 abs
0-1013 mbar vac	1000MBARVAC	-14.7
-1013-1000 mbar	±1000MBARG	-14.7-14.5
0-1000 mbar	1000MBARG	14.5
2000-0 mbar abs	2000MBARA	29.0 abs
0-2000 mbar	2000MBARG	29.0
0-4000 mbar	4000MBARG	58.0
Bar	Range Code	PSI
1-0 bar abs	1BARA	14.5 abs
1.01 bar vac	1BARVAC	-14.7
-1.01-1 bar	±1BARG	-14.7-14.5
0-1 bar	1BARG	14.5
2-0 bar abs	2BARA	29.0 abs
0-2 bar	2BARG	29.0
0-4 bar	4BARG	58.0
7-0 bar abs	7BARA	102 abs
-1.01-7 bar	-1V7BARG	-14.7-102
0-7 bar	7BARG	102
-1.01-14 bar	-1V14BARG	-14.7-203
0-14 bar	14BARG	203
0-20 bar	20BARG	290
0-35 bar	35BARG	508
0-70 bar	70BARG	1015
0-140 bar	140BARG	2031
0-200 bar	200BARG	2901
0-350 bar	350BARG	5076
grams/cm <sup>2</sup>	Range Code	PSI
0-200 g/cm <sup>2</sup>	200GCMG	2.8
0-350 g/cm <sup>2</sup>	350GCMG	5.0
1000-0 g/cm <sup>2</sup> abs	1000GCMA	14.2 abs
0-1037 g/cm <sup>2</sup> vac	1000GCMVAC	-14.7
0-1000 g/cm <sup>2</sup>	1000GCMG	14.2
2000-0 g/cm <sup>2</sup> abs	2000GCMA	28.4 abs
0-2000 g/cm <sup>2</sup>	2000GCMG	28.4
2100-0 g/cm <sup>2</sup> abs	2100GCMA	29.9 abs
0-2100 g/cm <sup>2</sup>	2100GCMG	29.9

Minus sign optional for vacuum models. 15 psig, 100 psig, 200 psig, and absolute sensors are for vacuum service.

kilograms/cm <sup>2</sup>	Range Code	PSI
1-0 kg/cm <sup>2</sup> abs	1KGCMGA	14.2 abs
0-1.03 kg/cm <sup>2</sup> vac	1KGCMGVAC	-14.7
-1.03-1 kg/cm <sup>2</sup>	±1KGCMG	-14.7-14.2
0-1 kg/cm <sup>2</sup>	1KGCMG	14.2
2-0 kg/cm <sup>2</sup> abs	2KGCMGA	28.4 abs
0-2 kg/cm <sup>2</sup>	2KGCMG	28.4
0-4 kg/cm <sup>2</sup>	4KGCMG	56.9
7-0 kg/cm <sup>2</sup> abs	7KGCMGA	99.6 abs
-1.03-7 kg/cm <sup>2</sup>	-1V7KGCMG	-14.2-99.6
0-7 kg/cm <sup>2</sup>	7KGCMG	99.6
-1.03-14 kg/cm <sup>2</sup>	-1V14KGCMG	-14.2-199
0-14 kg/cm <sup>2</sup>	14KGCMG	199
0-20 kg/cm <sup>2</sup>	20KGCMG	284
0-35 kg/cm <sup>2</sup>	35KGCMG	498
0-70 kg/cm <sup>2</sup>	70KGCMG	996
0-140 kg/cm <sup>2</sup>	140KGCMG	1991
0-200 kg/cm <sup>2</sup>	200KGCMG	2845
0-350 kg/cm <sup>2</sup>	350KGCMG	4978
mmHg (0°C)	Range Code	PSI
0-150 mmHg	150MMHGG	2.9
0-260 mmHg	260MMHGG	5.0
760-0 mmHg abs	760MMHGA	14.7 abs
0-760 mmHg vac	760MMHGVAC	-14.7
±760 mmHg	±760MMHGG	±14.7
0-760 mmHg	760MMHGG	14.7
1600-0 mmHg	1600MMHGA	30.9 abs
0-1600 mmHg	1600MMHGG	30.9
Torr (0°C)	Range Code	PSI
760-0 Torr	760TORRA	14.7 abs
1600-0 Torr	1600TORRA	30.9 abs
Atmospheres	Range Code	PSI
1-0 atm abs	1ATMA	14.7 abs
0-1 atm vac	1ATMVAC	-14.7
±1 atm	±1ATMG	±14.7
0-1 atm	1ATMG	14.7
0-2 atm abs	2ATMA	29.4 abs
0-2 atm	2ATMG	29.4
0-4 atm	4ATMG	58.8
-1-7 atm	-1V7ATMG	-14.7-103
0-7 atm	7ATMG	103
-1-14 atm	-1V14ATMG	-14.7-206
0-14 atm	14ATMG	206
0-20 atm	20ATMG	294
0-34 atm	34ATMG	500
0-70 atm	70ATMG	1029
0-135 atm	135ATMG	1984
0-200 atm	200ATMG	2939
0-340 atm	340ATMG	4997



RB Rubber Boot



-TP Top Port Option

