



CustomControlSensors

Hazardous Areas Adjustable Pressure Switch

6905GZE* - Diaphragm & 6905PE* - Piston Sensor



DESCRIPTION

- Highly reliable devices utilizing the CCS Dual-Snap® Belleville disc spring principle pioneered by CCS' engineers.
- Engineering based on aerospace technology.
- Rigid, compact and internally adjustable for convenient field set point adjustment.
- Repeatable and stable set points.
- Vibration and shock resistant.
- High cycle life.
- High over-pressure capability. (System and Proof)
- Certified explosion proof hermetically sealed electrical assembly for environmental protection.
- Various options for wetted materials and electrical ratings to meet a wide range of application requirements and media compatibility.

SHIPPING WEIGHT: APPROXIMATELY 30 OUNCES (850 GRAMS)

SERIES:

6905GZE* -7042
6905PE* -7042

ADJUSTABLE SET POINT RANGE:

1 to 16000 PSIG
0.069 to 1103 bar
6.89 to 110316 kPa

OPERATING TEMPERATURE:

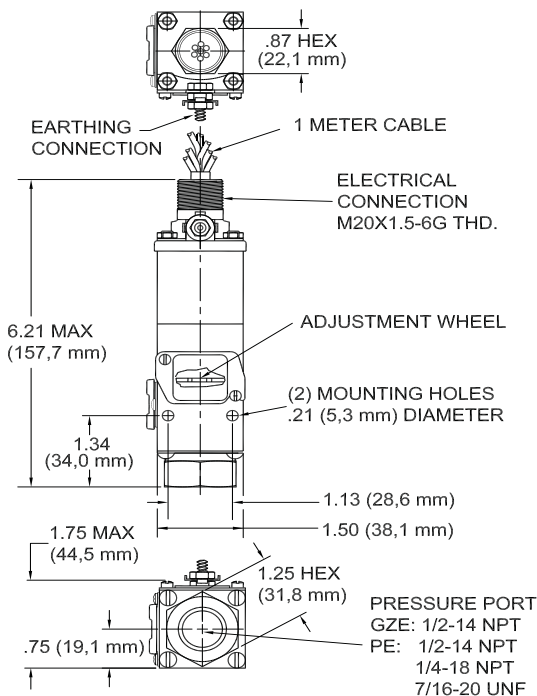
Temperature limits change with O-ring selection.

-40° to 186°F
-40° to 86°C

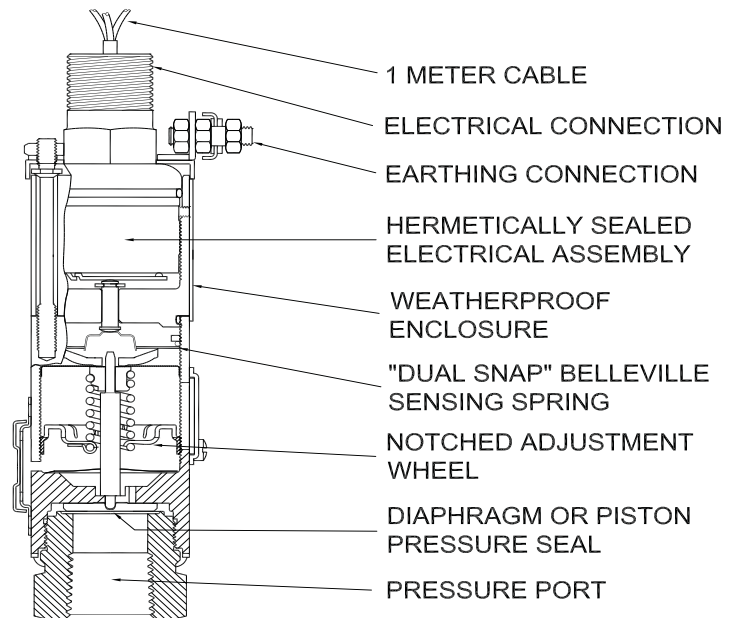
STANDARD FEATURES:

- ATEX - Baseefa Certified
- CE Mark
- CCC
- NACE MR0175 / ISO 15156
- NEMA: 4, 7, 9, 13 / IP66 & 67
- Hermetically Sealed Electrical Assembly
- 316 SST Electrical Assembly
- 300 Series SST Housing
- M20 Electrical Connection

INSTALLATION DRAWING



DESIGN PRINCIPLES



SERIES 6905GZE PE

FIELD SETTING: Loosen access cover. Adjust adjustment screw using screwdriver slot as illustrated, then attach to a variable pressure source with a suitable gage, and check that the circuit continuity operates at the pressures desired. Clockwise to increase settings. Counterclockwise to decrease setting.

NOTE: DO NOT USE ELECTRICAL HEX FOR TORQUING.



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OPERATING AND ORDERING DATA

| SERIES 6905GZE*-7042 | WETTED PARTS: 1/2"-14 NPT STAINLESS STEEL PRESSURE PORT AND DIAPHRAGM, VITON O-RING | | | | |
|-------------------------|---|--------------------------------|-----------------------------|----------------------------|---------------------------|
| | ADJUSTABLE SET POINT RANGE | | APPROX. DEAD BAND PSI (BAR) | SYSTEM PRESSURE PSIG (BAR) | PROOF PRESSURE PSIG (BAR) |
| | INCREASING PRESSURE PSIG (BAR) | DECREASING PRESSURE PSIG (BAR) | | | |
| 6905GZE*12-7042 | 3-20 (0.21-1.4) | 1-18 (0.07-1.2) | 2 (0.14) | 500 (34.5) | 750 (52) |
| 6905GZE*14-7042 | 9-75 (0.6-5.1) | 3-69 (0.21-4.8) | 6 (0.41) | | |
| 6905GZE*16-7042 | 18-150 (1.2-10.3) | 6-138 (0.41-9.5) | 12 (0.8) | 1500 (103) | 2000 (138) |
| 6905GZE*18-7042 | 45-375 (3.1-25.9) | 15-345 (1.0-23.8) | 30 (2.0) | | |
| 6905GZE*20-7042 | 300-1000 (20.7-69) | 225-925 (15.5-64) | 75 (5.1) | 2000 (138) | 3000 (207) |
| 6905GZE*22-7042 | 700-2200 (48.3-152) | 520-2020 (35.9-139) | 180 (12.4) | 3000 (207) | 4500 (310) |
| 6905GZE*24-7042 | 1800-3400 (124-234) | 1520-3120 (105-215) | 280 (19.3) | 5000 (346) | 7500 (517) |

| SERIES 6905PE*-7042 | WETTED PARTS: 1/2"-14 NPT 316 STAINLESS STEEL PRESSURE PORT & PISTON, VITON O-RING | | | | |
|------------------------|--|--------------------------------|-----------------------------|----------------------------|---------------------------|
| | ADJUSTABLE SET POINT RANGE | | APPROX. DEAD BAND PSI (BAR) | SYSTEM PRESSURE PSIG (BAR) | PROOF PRESSURE PSIG (BAR) |
| | INCREASING PRESSURE PSIG (BAR) | DECREASING PRESSURE PSIG (BAR) | | | |
| 6905PE*32-7042 | 15-200 (1.03-13.8) | 5-190 (0.35-13.1) | 10 (0.7) | 2000 (138) | 3000 (207) |
| 6905PE*34-7042 | 150-1600 (10.3-110) | 40-1490 (2.8-103) | 110 (7.6) | 3000 (207) | 5000 (345) |
| 6905PE*36-7042 | 500-3200 (34.5-221) | 330-3030 (22.8-209) | 170 (11.7) | 5000 (345) | 7500 (517) |

| SERIES 6905PE*-7042 | WETTED PARTS: 1/4"-18 NPT 316 STAINLESS STEEL PRESSURE PORT & PISTON, VITON O-RING | | | | |
|------------------------|--|--------------------------------|-----------------------------|----------------------------|---------------------------|
| | ADJUSTABLE SET POINT RANGE | | APPROX. DEAD BAND PSI (BAR) | SYSTEM PRESSURE PSIG (BAR) | PROOF PRESSURE PSIG (BAR) |
| | INCREASING PRESSURE PSIG (BAR) | DECREASING PRESSURE PSIG (BAR) | | | |
| 6905PE*38-7042 | 2000-6500 (138-448) | 1500-6000 (103-414) | 500 (34.5) | 9993 (689) | 13000 (896) |

| SERIES 6905PE*-7042 | WETTED PARTS: 7/16"-20 UNF 316 STAINLESS STEEL PRESSURE PORT & PISTON, VITON O-RING | | | | |
|------------------------|---|--------------------------------|-----------------------------|----------------------------|---------------------------|
| | ADJUSTABLE SET POINT RANGE | | APPROX. DEAD BAND PSI (BAR) | SYSTEM PRESSURE PSIG (BAR) | PROOF PRESSURE PSIG (BAR) |
| | INCREASING PRESSURE PSIG (BAR) | DECREASING PRESSURE PSIG (BAR) | | | |
| 6905PE*40-7042 | 5000-11000 (345-758) | 3500-9500 (241-655) | 1500 (103) | 13329 (919) | 20000 (1379) |
| 6905PE*42-7042 | 10000-16000 (690-1100) | 7500-13500 (517-931) | 2500 (172) | 16665 (1149) | 25000 (1724) |

HOW TO ORDER

Follow these steps to build your part number:

1. Specify the series based on your required set point, range, dead band, system pressure and proof pressure.
2. Add desired options model code letter.
3. Add the applicable standard suffix number.

(Ex: 6905GZEM18-7043)

PRESSURE CONVERSION

1 BAR = 14.5 PSI
1 kPa = 0.145 PSI

CERTIFICATIONS

Consult CCS website for complete certification and approval listing.

OPTIONAL STANDARD MODIFIED SUFFIXES

7043: Gold Contacts and Stainless Steel Body (-7042)

PRESSURE SWITCH CERTIFICATIONS

* ATEX - Certificate No. Baseefa 03ATEX0700X. Baseefa certified equipment or protective system intended for potentially explosive atmospheres Directive 94/9/EC. In compliance with EN60079-0:2012, EN 60079-1:2007, EN 60079-31:2009.

OPTIONS MODEL CODES

M: DPDT Electrical

Note: Additional modified standard suffixes are available, consult CCS sales department or CCS Representative.

ELECTRICAL CHARACTERISTICS

RATING OF SWITCH ELEMENT

| VOLTS | AMPERES | |
|--------------------|---------|----------|
| | SPDT | DPDT "M" |
| | Res. | Res. |
| 125 AC - 50/60 Hz | 11 | 11 |
| 250 AC - 50/60 Hz | 11 | 11 |
| 30 DC | 5 | 5 |
| 125 DC | .5 | .5 |
| *125 AC - 50/60 Hz | 1 max | 1 max |
| *30 DC | 1 max | 1 max |

*Gold Contacts -7043 Suffix

SCHEMATIC AND WIRING CODE

