

| REV | DOCUMENT | CHANGED BY | CHECK       |
|-----|----------|------------|-------------|
| 3   | 0033839  | PRS        | 13SEP07 CMH |

**SERIES**  
MOTOROLA HOUSING  
COMPENSATED AND  
CALABRATED (mV)

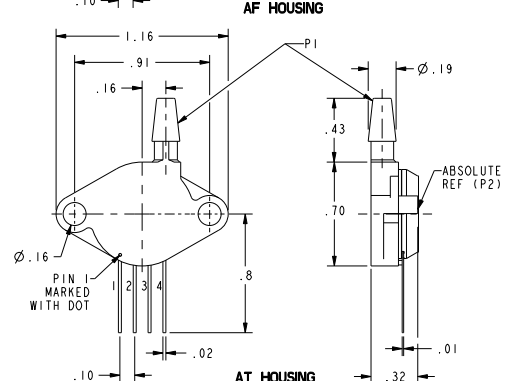
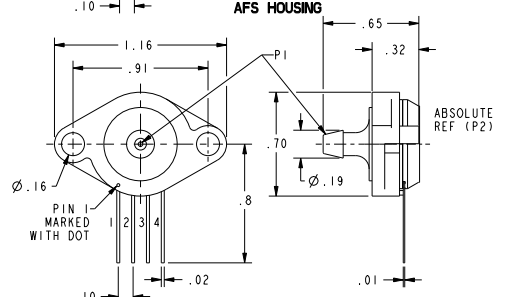
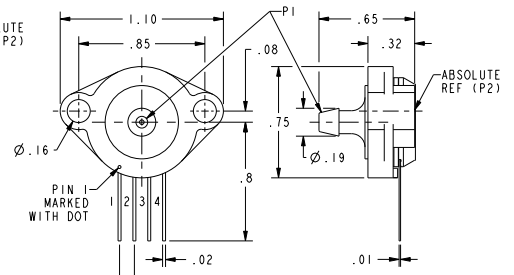
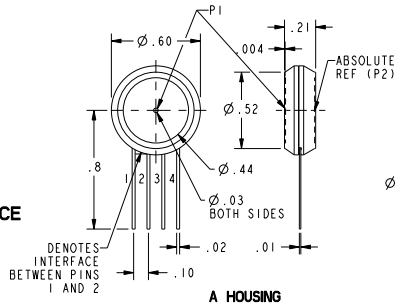
**DESIGNATES PRESSURE**  
- NO DESIGNATION (PSI)

**PRESSURE RANGE**  
05, 15, 30,  
60, 100 PSIA

**ACCURACY GRADE**  
C - COMMERCIAL GRADE  
H - HIGH GRADE

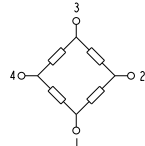
**PORT OPTION**  
F - AXIAL  
T - RADIAL  
FS - OFFSET AXIAL

**PRESSURE REFERENCE**  
A - ABSOLUTE ≥ 5 PSIA



| XPC<br>A STYLE (ABSOLUTE)                             | PERFORMANCE AT 25°C AND 12±0.01 VDC (UNLESS OTHERWISE STATED) |      |     |         |      |     | UNITS  | FULL SCALE<br>PRESSURE<br>PSIA | PROOF<br>PRESSURE<br>PSIA | BURST<br>PRESSURE<br>PSIA |
|---|---|------|-----|---------|------|-----|--------|--------------------------------|---------------------------|---------------------------|
|   | C-GRADE   |      |     | H-GRADE |      |     |        |                                |                           |                           |
|   | MIN   | NOM  | MAX | MIN     | NOM  | MAX |        |                                |                           |                           |
| OFFSET (0 PSIA) (FOR ALL ABSOLUTE LISTINGS) $\Delta$  | -1  | 0    | 1   | -0.5    | 0    | 0.5 | mV     |                                |                           |                           |
| 5 PSIA SPAN (P1>P2)                                   | 57  | 60   | 63  | 59      | 60   | 61  | mV     | 5                              | 15                        | 25                        |
| 15 PSIA SPAN (P1>P2)                                  | 85  | 90   | 95  | 89      | 90   | 91  | mV     | 15                             | 45                        | 75                        |
| 30 PSIA SPAN (P1>P2)                                  | 85  | 90   | 95  | 89      | 90   | 91  | mV     | 30                             | 90                        | 150                       |
| 60 PSIA SPAN (P1>P2)                                  | 85  | 90   | 95  | 89      | 90   | 91  | mV     | 60                             | 180                       | 300                       |
| 100 PSIA SPAN (P1>P2)                                 | 95  | 100  | 105 | 99      | 100  | 101 | mV     | 100                            | 250                       | 400                       |
| COMBINED LINEARITY AND HYSTERESIS $\Delta$            | ---   | 0.25 | 1   | ---     | 0.25 | 0.5 | ppm/°C |                                |                           |                           |
| NULL SHIFT OVER TEMPERATURE (0-25, 25-70 °C) $\Delta$ | -1  | ---  | 1   | -0.5    | ---  | 0.5 | ppm/°C |                                |                           |                           |
| SPAN SHIFT OVER TEMPERATURE (0-25, 25-70 °C) $\Delta$ | -2  | ---  | 2   | -1      | ---  | 1   | % SPAN |                                |                           |                           |

| GENERAL OPERATING<br>CHARACTERISTICS | ALL PRESSURES AND GRADES |     |     | UNITS  |
|--------------------------------------|--------------------------|-----|-----|--------|
|                                      | MIN                      | NOM | MAX |        |
| EXCITATION VOLTAGE                   | 3                        | 12  | 16  | Vdc    |
| INPUT RESISTANCE                     | 5                        | --- | --- | K-OHMS |
| OUTPUT RESISTANCE                    | ---                      | 3   | --- | K-OHMS |
| OPERATING TEMPERATURE                | -25                      | 25  | 85  | °C     |
| STORAGE TEMPERATURE                  | -40                      | --- | 125 | °C     |



EQUIVALENT CIRCUIT

| PIN OUT |                 |
|---------|-----------------|
| 1       | -V EXCITATION   |
| 2       | + OUTPUT SIGNAL |
| 3       | +V EXCITATION   |
| 4       | - OUTPUT SIGNAL |

| CATALOG LISTINGS |   |
|------------------|---|
| XPC05AFSC        | ③ |
| XPC05ATH         | ③ |
| XPC15AFSC        | ③ |
| XPC15AFH         |   |
| XPC15AFSC        |   |
| XPC15AC          |   |
| XPC15ATC         |   |
| XPC15ATH         |   |
| XPC30ATC         |   |
|                  | ② |
|                  | ② |
|                  | ② |

- NOTES
- OFFSET IS A CALCULATED VALUE AS FOLLOWS:  
2 POINTS, (0.5 PSIA AND FULL SCALE PRESSURE) ARE USED TO ESTABLISH THE LINE FROM WHICH THE OFFSET IS CALCULATED
  - SPAN IS THE ALGEBRAIC DIFFERENCE BETWEEN THE OUTPUT AT FULL SCALE PRESSURE AND THE OFFSET OUTPUT
  - TEMPERATURE ERROR IS CALCULATED WITH RESPECT TO 25°C
  - LINEARITY IS MEASURED AT 1/2 FULL SCALE PRESSURE USING BEST STRAIGHT LINE FIT
  - THE OUTPUT OF THE SENSOR IS PROPORTIONAL, RATIO-METRIC, TO THE EXCITATION VOLTAGE. ALL SPECIFICATIONS WILL NOMINALLY BE CHANGED BY THE RATIO OF  $V_{EXCITATION}/12.0$  Vdc
  - LIMIT SOLDERING TO 315°C FOR LESS THAN 10 SECONDS
  - TERMINAL NO. 1 IS IDENTIFIED ON THE DRAWING WITH EITHER A DOT ON THE HOUSING OR A TAB BETWEEN TERMINALS
  - APPLYING PRESSURE TO PORT NO. 1 RESULTS IN POSITIVE GOING OUTPUT
  - P1 INPUT MEDIA RESTRICTED TO DRY GASES ONLY

|   |  |                                  |                                |       |     |         |
|---|--|----------------------------------|--------------------------------|-------|-----|---------|
| UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:                      | <input checked="" type="checkbox"/> FRACTIONAL | <input type="checkbox"/> DECIMAL | <input type="checkbox"/> MIXED | DRAWN | TRF | 02APRO1 |
| NO PLACE  | .X   | ±.040                            | ±1                             | CHECK | SAV | 02APRO1 |
| ONE PLACE   | .XX  | ±.030                            | ±0.4                           |       |     |         |
| TWO PLACE   | .XXX   | ±.015                            | ±0.15                          |       |     |         |
| THREE PLACE   | .XXX   | ±.005                            | ±                              |       |     |         |
| ANGLES  |  | ±                                | ±                              |       |     |         |
| RAW MATERIAL-COMMERCIAL STANDARD                                |  |                                  |                                |       |     |         |
| THIRD ANGLE PROJECTION  |  |                                  |                                |       |     |         |
| DIMENSIONS ARE TO BE MET BEFORE PROTECTIVE COATINGS ARE APPLIED |  |                                  |                                |       |     |         |
| 3D PTC  | ASME Y14.5M-1994                               |                                  |                                |       |     |         |

|                        |                        |
|------------------------|------------------------|
| <b>Honeywell</b>       |                        |
| <b>PRESSURE SENSOR</b> |                        |
| TITLE                  | DRAWING NAME           |
|                        | XPC ABS SERIES CHART 1 |
| SIZE DWG TYPE          | REV                    |
| C I                    | 3                      |
| SCALE                  | SHEET                  |
| 2:1                    | 1 OF 1                 |