

PDCR 9X2 WIDE TEMPERATURE RANGE TRANSDUCERS

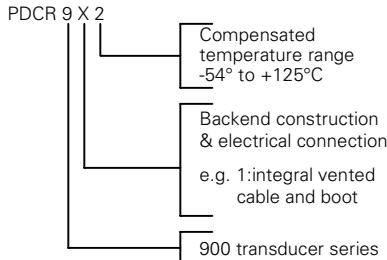
INTRODUCTION

The PDCR 9X2 type pressure transducers are based on the same design format as the general purpose PDCR 900 series, but configured specifically for operation outside the standard -20° to +80°C temperature range and provide high thermal performance over the operating temperature range.

Type Number and Specification

PDCR 902 - Basic core
 PDCR 912 - General purpose
 PDCR 922 - General purpose
 PDCR 932 - Waterproof/Depth
 PDCR 962 - Integral connector

The type numbering system denotes the following details:



Please refer to ordering information, assembly diagram and installation drawings to fulfil your requirements.

SPECIFICATION

Operating Pressure Ranges

350mbar, 700mbar, 1, 1.5, 2, 3.5, 5, 7, 10, 15, 20, 35 and 60 bar gauge or absolute. Other pressure units can be specified, e.g. psi, kPa, mH₂O. For higher ranges refer to PDCR 330 data sheet.

Excitation Voltage

10Vd.c. regulated to within ±0.1% at 5mA nominal. Other regulated d.c. excitation levels can be specified e.g. 5V d.c. giving proportionally reduced output span.

Output Voltage

50mV for 350mbar range
 100mV for 700mbar range and above.

The above outputs are for 10 Volts d.c. regulated excitation voltage.

Common Mode Voltage

Typically +6V to +8.5V with respect to the -ve supply at 10V d.c. excitation.

Operating Temperature Range

-54° to +125°C.
N.B.
 It is possible to operate PDCR 912 and PDCR 932 types with pressure media temperature between -54° to +125°C, however the vented cable and moulded termination must be limited to -20° to +80°C operation.

Temperature Effects

Total error band (T.E.B.) or average coefficients (% F.S./°C) including thermal zero shift, sensitivity shift and the thermal hysteresis (for ranges 700mbar and above):
 -54° to +125°C: ±2.5% T.E.B.;
 ±0.015% F.S./°C

Improved performance e.g.
 0° to +50°C: ±0.3% T.E.B.;
 ±0.006% F.S./°C
 -40° to +80°C: ±1.0% T.E.B.;
 ±0.008% F.S./°C
 -54° to +125°C: ±1.5% T.E.B.;
 ±0.009% F.S./°C

N.B.

The temperature effects are applicable when excitation voltage regulated as stated. Sensitivity shift will be affected typically 0.004%/reading/°C per 1% change in excitation voltage. For additional specification including assembly diagram and installation drawings please refer to PDCR 900 SERIES data sheet.

ORDERING INFORMATION

Please state the following:

(1) Type number

PDCR 9 X 2

- | | |
|---|--|
| 0 | basic core |
| 1 | integral vented cable and boot |
| 2 | ptfe cable end reference tube |
| 3 | waterproof back end with integral vented cable which incorporates a Kevlar strain relieving core |
| 6 | integral connector (mating socket not supplied) |

(2) Total error band and compensated temperature range

(3) Operating pressure range

(4) Pressure connection

(5) Pressure media

For non-standard requirements please specify in detail.

Continuing development sometimes necessitates specification changes without notice.