

DIFFERENTIAL PRESSURE TRANSMITTER, 2-WIRE



INTRODUCTION

DPT501 is a programmable, microprocessor-based, 2-wire, differential pressure transmitter. It features an IP66 enclosure, and an LCD display. DPT501 can be easily configured for pressure unit, range, etc.

FEATURES

- True 2-wire operation
- Unit : Pa, mmWC, mbar, inWG, inHg, PSI, mmHg
- High accuracy
- Software calibration - no trim pots
- 12~32 V DC loop supply
- Dual 7-segment LCD display
- User programmable through PC using DCC502 USB- to-Serial converter
- Auto-zero adjustment with pushbutton switch
- DIP switches for selection of Unit & Range

SPECIFICATIONS

All specifications at ambient of 25 °C, unless specified otherwise

INPUT

Unit of measurement	Pa, mmWC, mbar, inWG, inHG, PSI, mmHG
Range	See Table 1
Resolution	See Table 1
Display	Dual 7-segment, 4-digit, 0.5" (12.7 mm) LCD

OUTPUT

Current	4~20mA, 2-wire
Permissible load	600 Ω @ 24 V DC, 20 mA
Current limit	20~22 mA
Response time	<150 mS

ACCURACY

Linearity & calibration	See Table 1
Supply voltage effect	$\pm 0.001\%$ of span / V
Supply ripple effect, 50/60 hz, 5 Vp - p	$\pm 0.005\%$ of span

POWER SUPPLY

Supply voltage	12 to 32 VDC loop supply
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CALIBRATION

Zero & span	Through PC using DCC502 USB- to-serial converter
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TEMPERATURE, HUMIDITY

Ambient, storage	-25 ~ +70 °C
Ambient, operation	-20 ~ +55 °C
Relative humidity	0 ~ 95% RH, non-condensing

MOC

Enclosure	LM6, pressure die-cast
Sensor tube	SS304

OTHER

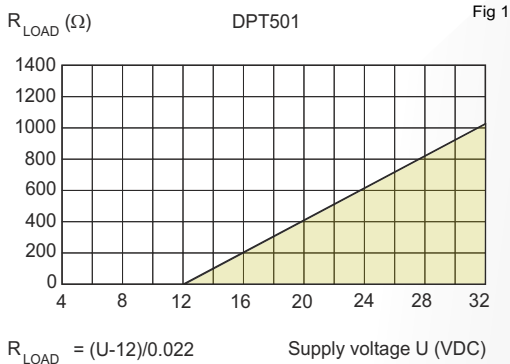
Certification	Flameproof for Gas Groups I, IIA & IIB
Protection	IP66, except sensor tube
Dimensions (in mm)	148(H) x 148(W) x 105(D)
Mounting	Wall/Surface

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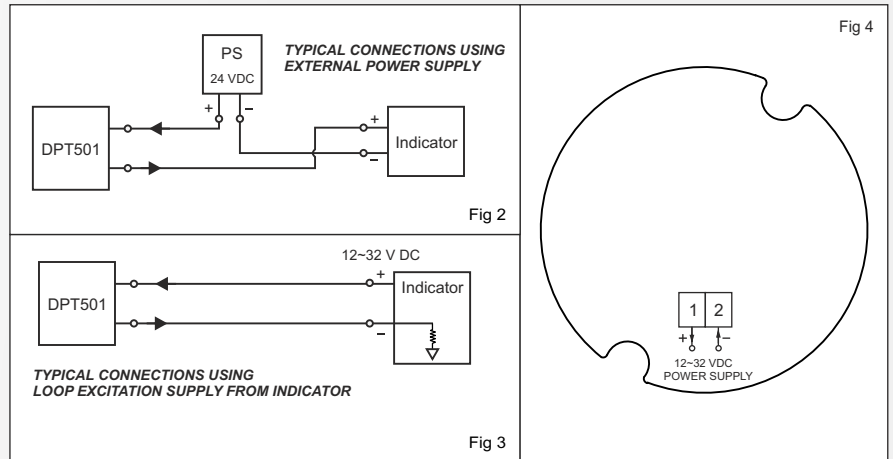
TABLE1 - PRESSURE RANGE AND ACCURACY

UNIT	TYPICAL ACCURACY AT 30 °C (°C / % SPAN)	WORST CASE ACCURACY (°C / % SPAN)	MINIMUM SPAN	RESOLUTION
Pa	± 0.5% ± 2 Pa	± 1.5% of reading ±3 Pa	10% of full scale	1
mmWC	± 0.5% ± 0.2 mmWC	± 1.5% of reading ±0.3 mmWC	10% of full scale	0.1
mbar	± 0.5% ± 0.02 mbar	± 1.5% of reading ±0.03 mbar	10% of full scale	0.01
inWG	± 0.5% ± 0.008 inWG	± 1.5% of reading ±0.012 inWG	10% of full scale	0.01
PSI	± 0.5% ± 0.0003 PSI	± 1.5% of reading ±0.00045 PSI	10% of full scale	0.001
inHg	± 0.5% ± 0.0007 inHG	± 1.5% of reading ±0.0008 inHG	10% of full scale	0.001
mmHg	± 0.5% ± 0.016 mmHG	± 1.5% of reading ±0.024 mmHG	10% of full scale	0.01

OUTPUT LOAD

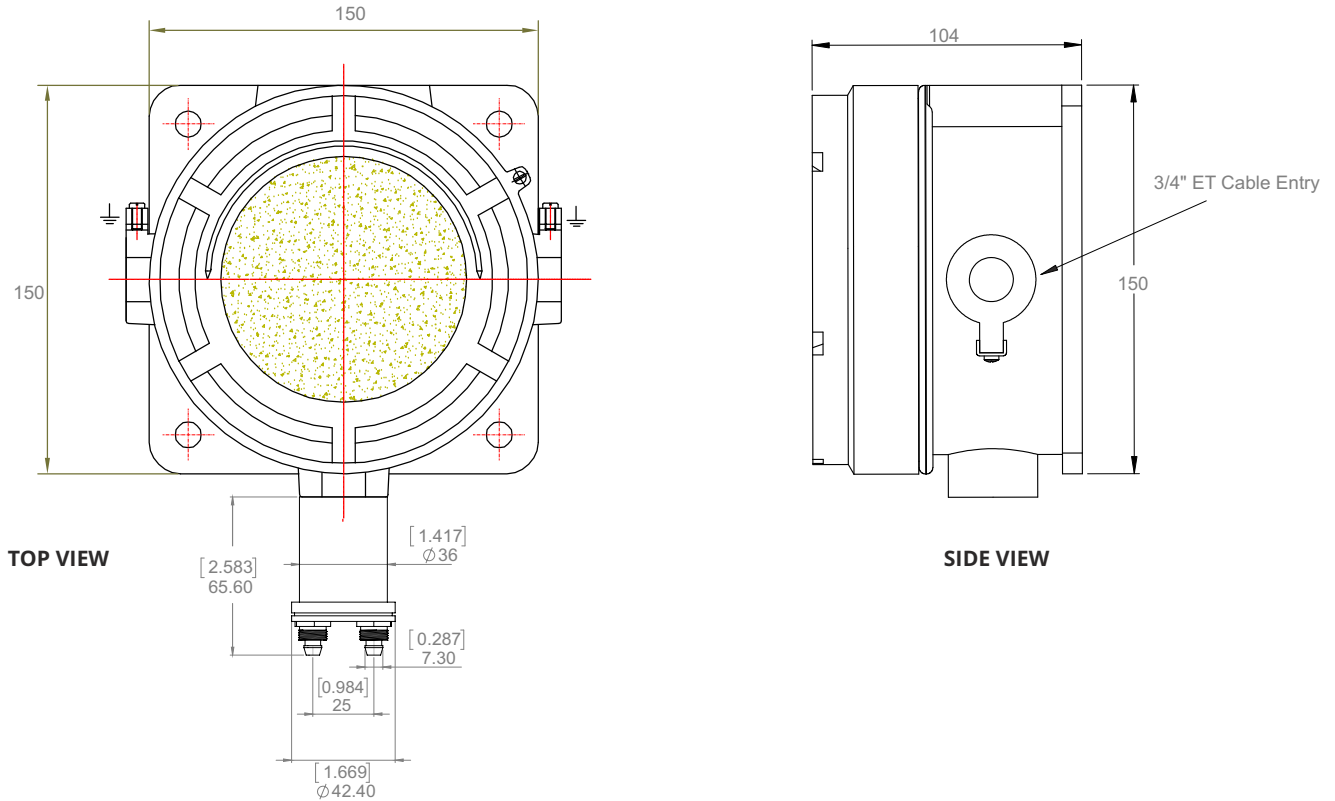


PROGRAMMING OF INSTRUMENT USING DCC502



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DIMENSIONS



ORDERING INFORMATION

ORDER CODE	
2435	A

A	Range
01	-10.0~10.0 mmWC
02	-100.0~100.0 mmWC
03	-200.0~200.0 mmWC
04	-500.0~500.0 mmWC
05	-1000.0~1000.0 mmWC
06	-2000.0~2000.0 mmWC

Ordering Options

The following ordering options are available on request. Minimum order quantity and/or minimum order value may apply.

Option details	
1.	Customer specified range
2.	Customer specified unit (Pa, mmWC, mbar, inWG, PSI, inHg, mmHg)

Note : Any non standard range, eg -50~400 Pa, should be specified when ordering.
User can also select range and unit through PC using DCC502 USB-to-serial converter

ITEM	MODEL	ORDER CODE
USB TO SERIAL CONVERTER*	DCC502	2565

* To be purchased separately.

CAT#529R0/311215/A

ENQUIRIES

Instruments: sales@radix.co.in
Sensors: sensors@radix.co.in
Gauges: gauges@radix.co.in
Automation: automation@radix.co.in
Level: level@radix.co.in

RADIX ELECTROSYSTEMS PVT LTD
 EL-135/136/137, Electronics Zone
 TTC Indl. Area, MIDC, Mahape
 Navi Mumbai - 400 710, India
 + 91 22 42537777 • sales@radix.co.in

radix®
 www.radix.co.in