

DIFFERENTIAL PRESSURE TRANSMITTER, 2-WIRE ————— SC504

PC PROGRAMMABLE



- True 2-wire operation
- Unit of measurement : Pa, mmWC, mbar, inWG, inHg, PSI, mmHg
- High accuracy
- Software calibration - no trimpots
- 12~32 V DC loop supply
- User programable using PC configurator PCC82 connected to USB port of any PC
- Auto-zero adjustment with pushbutton switch
- Dual 7-segment LCD display
- DIP switches for selection of Unit & Range

SC504 is a programmable, microprocessor-based, 2-wire, differential pressure transmitter. It features an IP65 enclosure, and an LCD display. SC504 can be easily configured for pressure unit, range, etc.

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

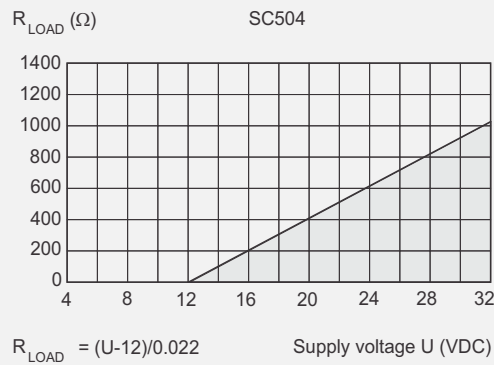
<p>INPUT</p> <p>Unit of measurement</p> <p>Range</p> <p>Resolution</p> <p>OUTPUT</p> <p>Current</p> <p>Permissible load</p> <p>Current limit</p> <p>Response time</p> <p>ACCURACY</p> <p>Linearity & calibration</p> <p>Supply voltage effect</p> <p>Supply ripple effect, 50/60 hz, 5 Vp - p</p> <p>POWER SUPPLY</p> <p>Supply voltage</p>	<p>Pa, mmWC, mbar, inWG, inHg, PSI, mmHg</p> <p>See Ordering information</p> <p>See Ordering information</p> <p>4~20 mA</p> <p>600 Ω @ 24 V DC, 20 mA</p> <p>20~22 mA</p> <p><150 mS</p> <p>See Table 1</p> <p>± 0.001% of span / V</p> <p>± 0.005% of span</p> <p>12 to 32 VDC loop supply</p>	<p>CALIBRATION</p> <p>Zero & span</p> <p>TEMPERATURE, HUMIDITY</p> <p>Ambient, storage</p> <p>Ambient, operation</p> <p>Relative humidity</p> <p>MECHANICAL</p> <p>Dimensions</p> <p>Mounting</p> <p>Cable gland</p> <p>MOC</p> <p>Enclosure</p> <p>Protection</p> <p>PROGRAMMABLE PARAMETERS</p> <p>Unit</p> <p>Range</p> <p>Digital filter</p>	<p>Using PC Configurator PCC82</p> <p>-25 ~ +70 °C</p> <p>-20 ~ +55 °C</p> <p>0 ~ 95% RH, non-condensing</p> <p>See Fig 3 & 4</p> <p>Wall/Surface/Duct mount</p> <p>PG7, suitable for cable dia 3 to 6.5 mm</p> <p>ABS plastic</p> <p>IP65</p> <p>See Table 1</p> <p>See Table 1</p> <p>1~10</p>
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TABLE 1

UNIT	TYPICAL ACCURACY AT 30 °C (°C / % SPAN)	WORST CASE ACCURACY (°C / % SPAN)	MIN 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

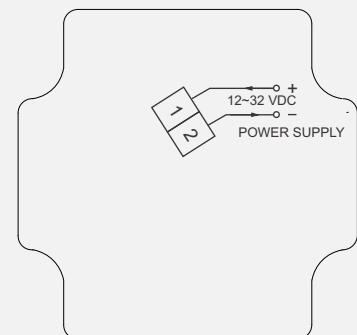
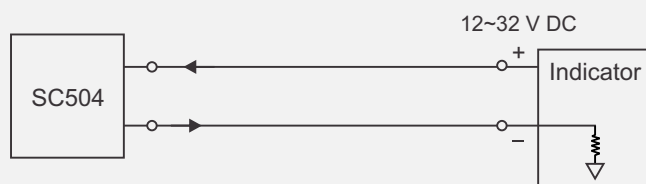
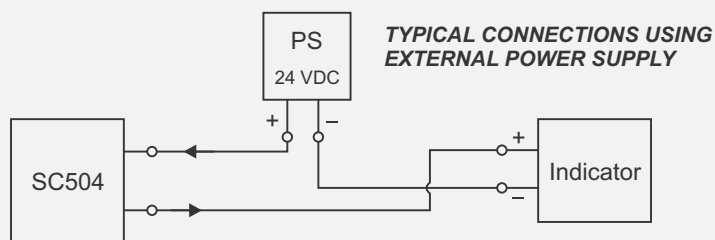
OUTPUT LOAD

Fig 1



CONNECTION DIAGRAM

Fig 2



DIFFERENTIAL PRESSURE TRANSMITTER, 2-WIRE ————— SC504

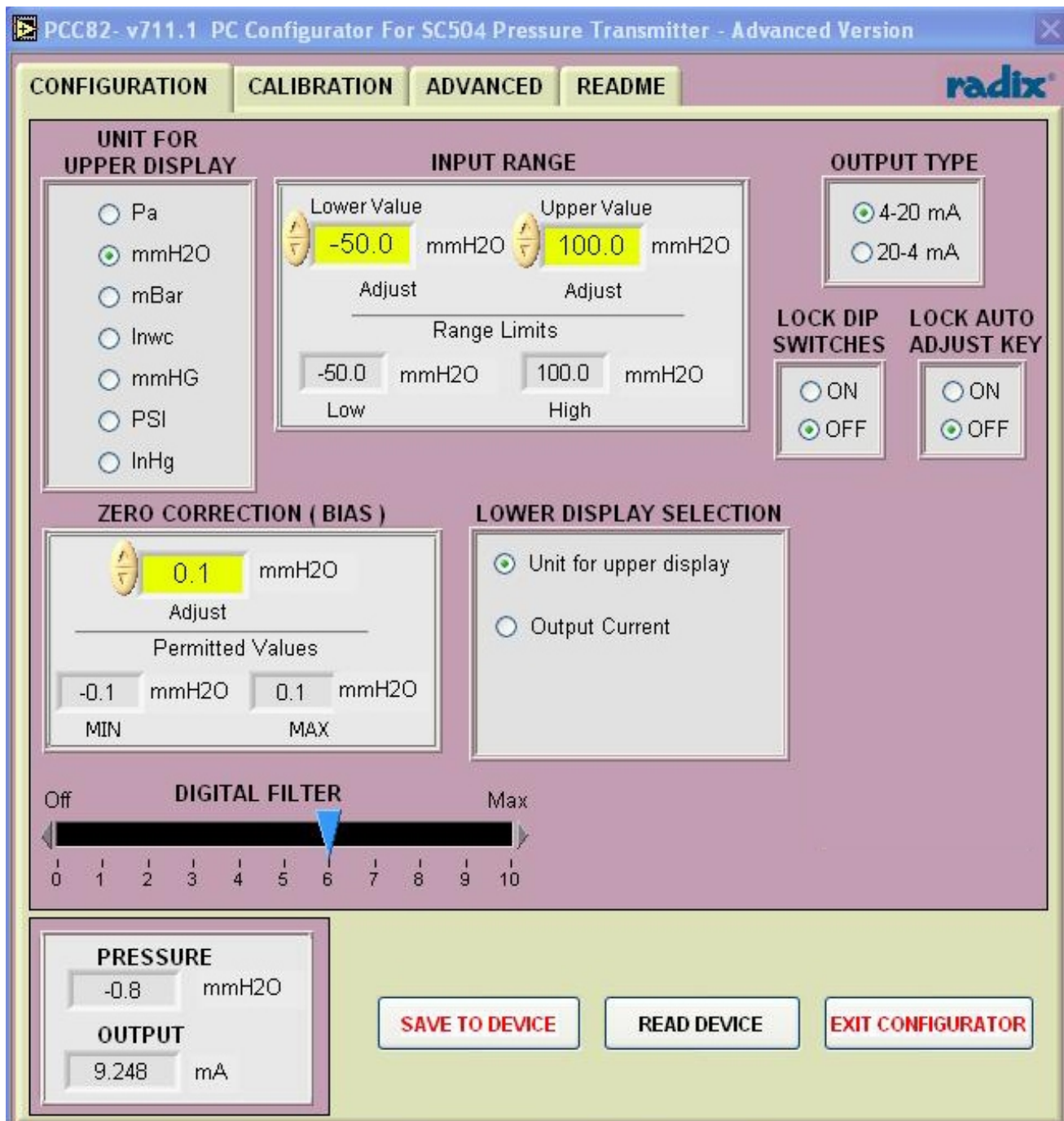
PC PROGRAMMABLE

PCC82 - PC CONFIGURATOR FOR SC504

SC504 can be configured using the PC Configurator PCC82. This can be connected to the USB port of any computer. PCC82 is supplied with an installable software on 1 CD. PCC82 is to be ordered extra.



PC Configurator PCC82



PCC82- v711.1 PC Configurator For SC504 Pressure Transmitter - Advanced Version

radix®

CONFIGURATION CALIBRATION ADVANCED README

UNIT FOR UPPER DISPLAY

- Pa
- mmH2O
- mBar
- Inwc
- mmHG
- PSI
- InHg

INPUT RANGE

Lower Value: mmH2O Upper Value: mmH2O

Adjust Adjust

Range Limits

mmH2O mmH2O

Low High

OUTPUT TYPE

- 4-20 mA
- 20-4 mA

LOCK DIP SWITCHES **LOCK AUTO ADJUST KEY**

- ON
- OFF

- ON
- OFF

ZERO CORRECTION (BIAS)

mmH2O

Adjust

Permitted Values

mmH2O mmH2O

MIN MAX

LOWER DISPLAY SELECTION

- Unit for upper display
- Output Current

DIGITAL FILTER

Off Max

0 1 2 3 4 5 6 7 8 9 10

PRESSURE

mmH2O

OUTPUT

mA

SAVE TO DEVICE **READ DEVICE** **EXIT CONFIGURATOR**

PC PROGRAMMABLE

DIMENSIONAL DETAILS

Fig 3

WALL/SURFACE MOUNT

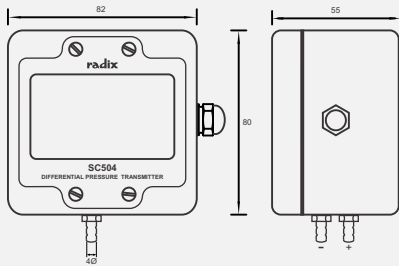
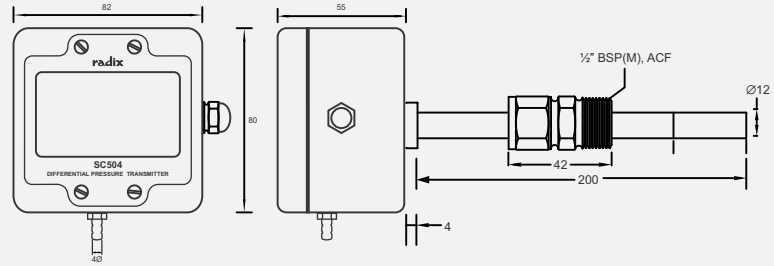


Fig 4

DUCT MOUNT



ORDERING INFORMATION

WALL/SURFACE MOUNT

DUCT MOUNT

ORDER CODE		ORDER CODE	
2301	A	2365	A

A	Range	
01	-10.0~10.0 mmWC	
02	-100.0~100.0 mmWC	Default Order Code
03	-199.9~199.9 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 using PC configurator PCC82.

CONFIGURATION USING DIP SWITCHES

Using the DIP switches in the instrument, the user can set the range, unit and Full-scale / Centre Zero output.

For Order Code 2301 01, DIP switches are not functional.

Unit Setting

Configuration	Pa	mmWC	mbar	inWG	mmHg	PSI	inHg
Combination (DIP switch 1)							

Measuring Range Setting

Order Code	Unit	Combination (DIP switch 2)				RANGES
		1	2	3	4	
2301 02	Pa	100	250	500	750	1000
	mmWC	10.0	25.0	50.0	75.0	100.0
	mbar	1.00	2.50	5.00	7.50	10.00
	inWG	0.40	1.00	2.00	3.00	4.00
	mmHg	0.80	2.00	4.00	6.00	8.00
	PSI	0.015	0.038	0.075	0.113	0.150
	inHg	0.029	0.073	0.145	0.218	0.290
2301 03	Pa	200	750	1000	1500	2000
	mmWC	20.0	75.0	100.0	150.0	200.0
	mbar	2.00	7.50	10.00	15.00	20.00
	inWG	0.80	2.00	4.00	6.00	8.00
	mmHg	1.60	4.00	8.00	12.00	16.00
	PSI	0.030	0.075	0.150	0.225	0.300
	inHg	0.058	0.145	0.290	0.435	0.580

Standard Range / Centre Zero Setting

Configuration	Full Scale	Centre Zero
Combination (DIP switch 2)		

Output Setting

Configuration	4~20 mA	20~4 mA
Combination (DIP switch 1)		

PC CONFIGURATOR - PCC82

ORDER CODE 2302



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