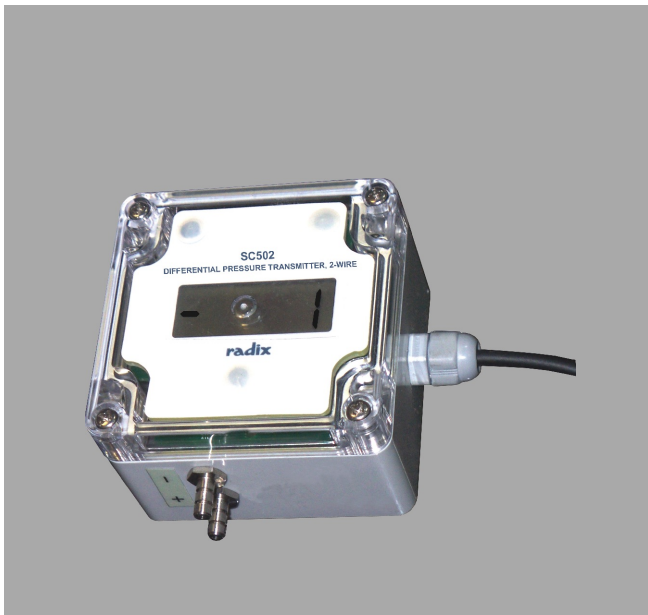


DIFFERENTIAL PRESSURE TRANSMITTER, 2-WIRE ——— SC502

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
- 4-digit LCD display
- DIP switches for selection of Unit & Range

SC502 is a programmable, microprocessor-based, 2-wire, differential pressure transmitter. It features an IP65 enclosure, and an LCD display. SC502 can be easily configured for pressure unit, range, output type (4~20 / 20~4 mA), etc.

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

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

OUTPUT LOAD

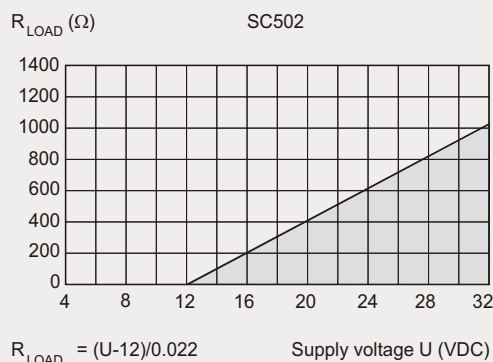


Fig 1

TABLE 1

ORDER CODE	UNIT	TYPICAL ACCURACY AT 30 °C (°C / % SPAN)	WORST CASE ACCURACY (°C / % SPAN)	MIN SPAN	RESOLUTION
2271 02 2271 03 2271 04	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
2271 05 2271 06	KPa	± 0.5% ± 0.02 KPa	± 1.5% of reading ±0.03 KPa	10% of full scale	0.01
	mmWC	± 0.5% ± 2 mmWC	± 1.5% of reading ±3 mmWC	10% of full scale	0.1
	mbar	± 0.5% ± 0.2 mbar	± 1.5% of reading ±0.3 mbar	10% of full scale	0.01
	inWG	± 0.5% ± 0.08 inWG	± 1.5% of reading ±0.12 inWG	10% of full scale	0.01
	PSI	± 0.5% ± 0.003 PSI	± 1.5% of reading ±0.0045 PSI	10% of full scale	0.001
	inHg	± 0.5% ± 0.007 inHG	± 1.5% of reading ±0.008 inHG	10% of full scale	0.001
	mmHg	± 0.5% ± 0.16 mmHG	± 0.5% of reading ±0.24 mmHG	10% of full scale	0.01

CONNECTION DIAGRAM

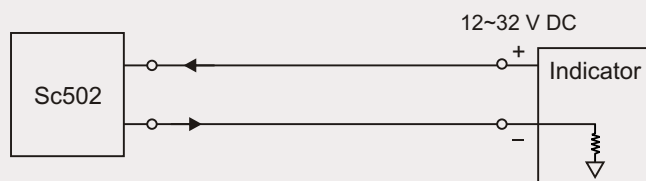
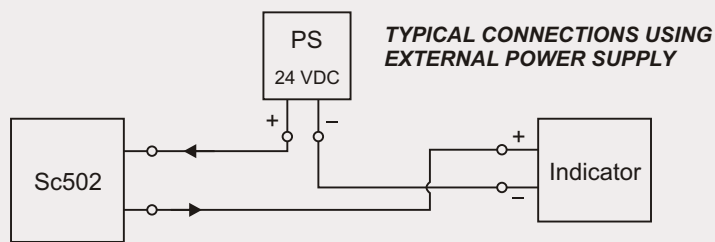
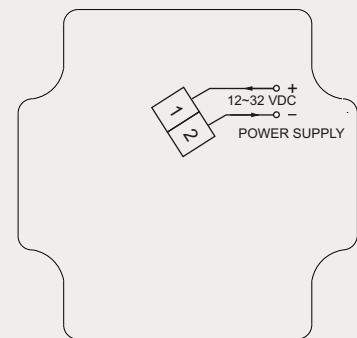


Fig 2

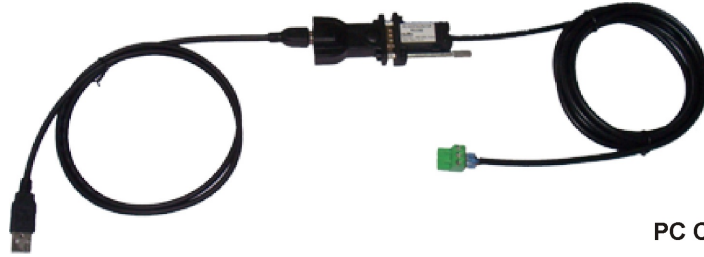


DIFFERENTIAL PRESSURE TRANSMITTER, 2-WIRE ——— SC502

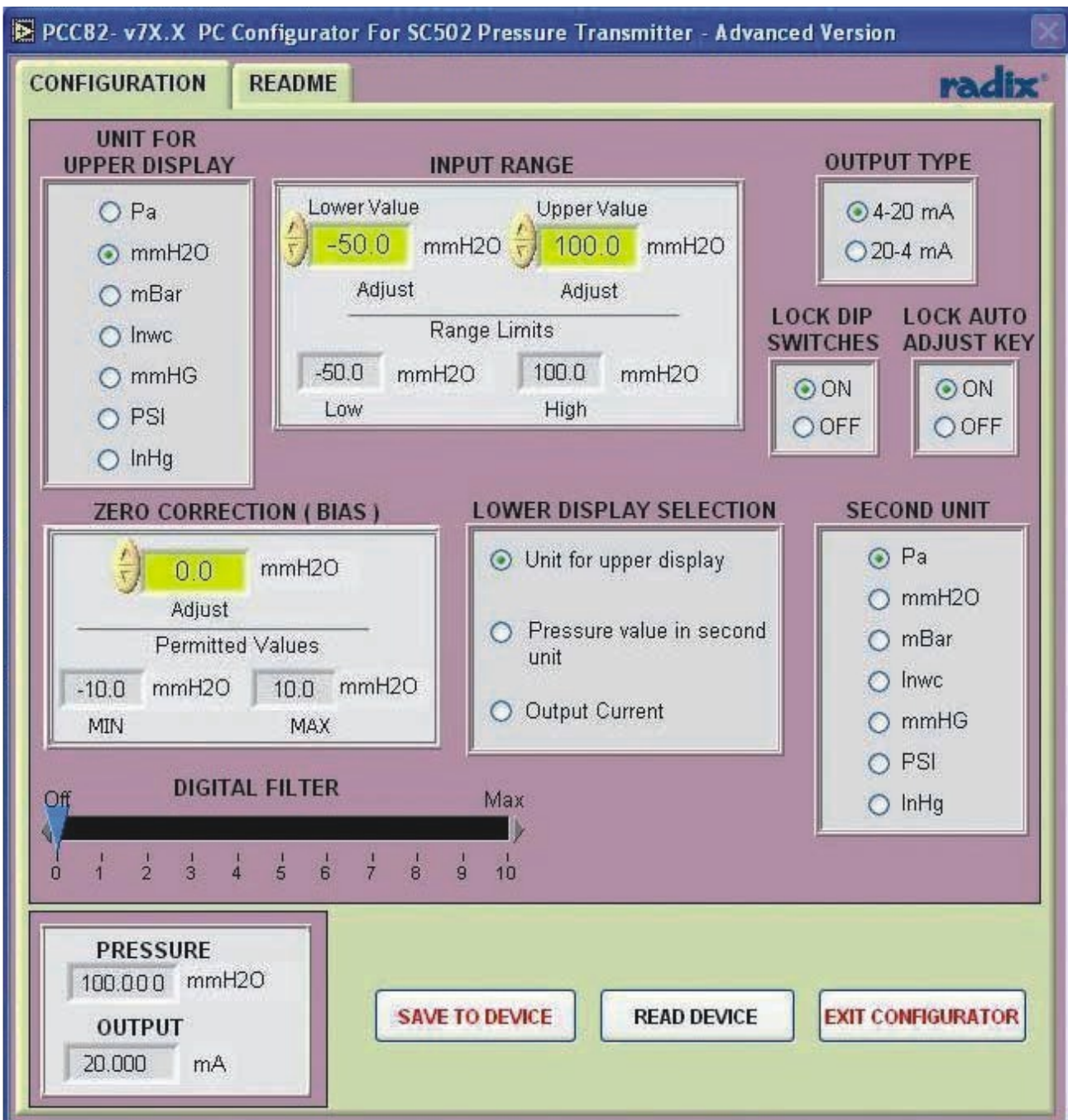
PC PROGRAMMABLE

PCC82 - PC CONFIGURATOR FOR SC502

SC502 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



The screenshot shows the PCC82- v7X.X PC Configurator For SC502 Pressure Transmitter - Advanced Version software interface. The interface is divided into several sections for configuration:

- UNIT FOR UPPER DISPLAY:** Radio buttons for Pa, mmH2O (selected), mBar, Inwc, mmHG, PSI, and InHg.
- INPUT RANGE:** Lower Value: -50.0 mmH2O (Adjust), Upper Value: 100.0 mmH2O (Adjust). Range Limits: Low (-50.0 mmH2O), High (100.0 mmH2O).
- OUTPUT TYPE:** Radio buttons for 4-20 mA (selected) and 20-4 mA.
- LOCK DIP SWITCHES:** Radio buttons for ON (selected) and OFF.
- LOCK AUTO ADJUST KEY:** Radio buttons for ON (selected) and OFF.
- ZERO CORRECTION (BIAS):** Adjust: 0.0 mmH2O. Permitted Values: MIN (-10.0 mmH2O), MAX (10.0 mmH2O).
- LOWER DISPLAY SELECTION:** Radio buttons for Unit for upper display (selected), Pressure value in second unit, and Output Current.
- SECOND UNIT:** Radio buttons for Pa (selected), mmH2O, mBar, Inwc, mmHG, PSI, and InHg.
- DIGITAL FILTER:** A slider from 0 (Off) to 10 (Max), currently set at 0.
- PRESSURE:** 100.000 mmH2O
- OUTPUT:** 20.000 mA
- Buttons:** SAVE TO DEVICE, READ DEVICE, EXIT CONFIGURATOR.

PC PROGRAMMABLE

DIMENSIONAL DETAILS

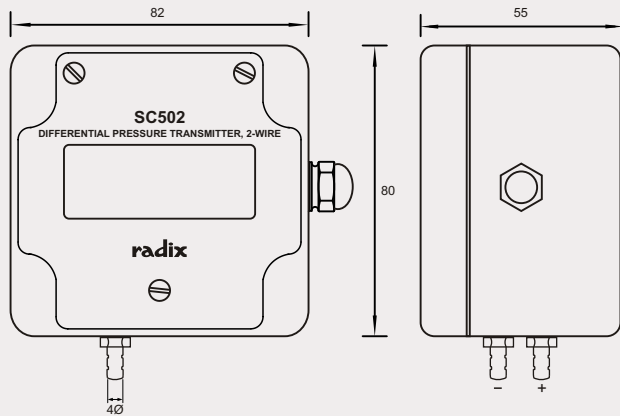


Fig 3

OTHER RELATED PRODUCTS

SC504 - DIFFERENTIAL PRESSURE TRANSMITTER, 2-WIRE



Similar to SC502, but dual display

ORDERING INFORMATION

ORDER CODE	
2271	A

A	Range	
01	-10.0~10.0 mmWC	
02	-100.0~100.0 mmWC	Default Order Code
03	-200.0~200.0 mmWC	
04	-500.0~500.0 mmWC	
05	-1000.0~1000.0 mmWC	
06	-1999.9~1999.9 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 2271 01, DIP switches are not functional.

Unit Setting

Configuration	Pa	mmWC	mbar	inWG	mmHg	PSI	inHg
Combination (DIP switch 1)							
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4

Measuring Range Setting

Order Code	Unit	Combination (DIP switch 2)				
		1	2	3	4	
2271 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
2271 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
2271 04	Pa	500	1250	2500	3750	5000
	mmWC	50.0	125.0	250.0	375.0	500.0
	mbar	5.00	12.50	25.00	37.50	50.00
	inWG	2.00	5.00	10.00	15.00	20.00
	mmHg	4.00	10.00	20.00	30.00	40.00
	PSI	0.075	0.188	0.375	0.563	0.750
2271 05	Pa	1000	2500	5000	7500	10000
	mmWC	100.0	250.0	500.0	750.0	1000.0
	mbar	10.00	25.00	50.00	75.00	100.00
	inWG	4.00	10.00	20.00	30.00	40.00
	mmHg	8.00	20.00	40.00	60.00	80.00
	PSI	0.2	0.375	0.75	1.125	1.5
2271 06	Pa	2000	5000	10000	15000	20000
	mmWC	200.0	500.0	1000.0	1500.0	2000.0
	mbar	20.0	50.0	100.0	150.0	200.0
	inWG	8.00	20.00	40.00	60.00	80.00
	mmHg	16.00	40.00	80.00	120.0	160.0
	PSI	0.300	0.750	1.500	2.250	3.000

Standard Range / Centre Zero Setting

Configuration	Full Scale	Centre Zero
Combination (DIP switch 2)		
	1 2 3 4	1 2 3 4

Output Setting

Configuration	4~20 mA	20~4 mA
Combination (DIP switch 1)		
	1 2 3 4	1 2 3 4

PC CONFIGURATOR - PCC82

ORDER CODE 2279



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