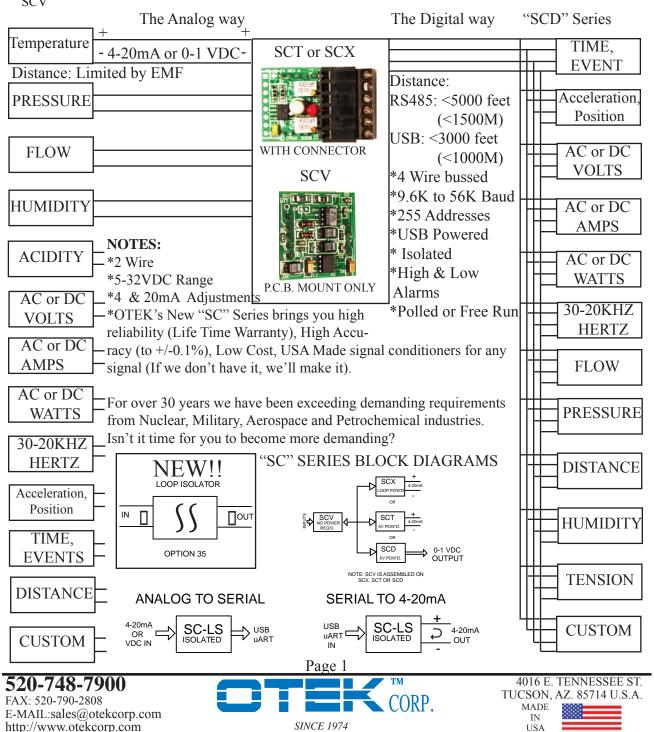


SC SERIES 1" SQUARE!

SIGNAL CONDITIONERS with 4-20mA, VDC OR SERIAL OUTPUT





Description:

OTEK's New "SC" Series utilize the latest technology with over 30 years of proven designs and thousands of instruments in the field, with some of them over 30 years old still operating in hazardous environments. The "SC" is available with either 4-20mA output ("SCT") for transmitters or the ("SCV") with 0-1VDC Out or, ("SCD") with digital (Serial I/O). All series utilize the same signal conditioner.

1. The <u>"SCV"</u> is the basic signal conditioner. It accepts 5VDC power input (see section 4.0 on page 3), current requirements vary from few microamps to under 3.8mA depending on model. Their output is 0-1VDC into a >100K Ohm load. No adjustments are included. The module is 0.9 x 0.9 x 0.25".

2. A. The "SCX" (Loop Powered):

We piggyback a 4-20mA transmitter from which we use under 3.8mA to power the signal conditioners so we can cover the 4(0 process) to 20mA (full scale process) range. No other power is required! The transmitting range is limited by your power supply (typically 24VDC), the wires(2) resistance, the minimum operating (quiescent) voltage (5VDC) and your load (burden). The operating voltage range is 5-32VDC. The SCX supplies 5VDC at <3.5mA to the listed (SCV Series) signal conditioners (Digits 4 & 5) without affecting the 4-20mA accuracy. Use the SCX for <u>loop powered</u> applications. As a stand alone, the SCX accepts a 0-1VDC or 0-1mADC signal.

2. B. The SCT (5 VDC powered, 4-20mA XMTR):

The "SCT" series has an integral 5-28 VDC DC-DC converter. The 4-20mA transmitter accepts 0-1 VDC F.S. signal from your sensor or the "SCV" conditioners listed (options 4 & 5 digits) and converts it to 4-20mA process signal. The "SCT" is ideal for logic power (5V) systems where 24V is not available. Its high efficiency DC-DC converter requires ~ 170mA when the output is 20mA and can drive loads up to 1k Ohms (including your wire resistance). Just like the "SCX," the "SCT" provides NO I/O isolation, so care must be taken when using A.C. signals (Options 31-33) and avoiding "ground loops (engineer's nightmare), or contact Otek for its new "SC-IS." Use the SCT for power input applications of 4-6VDC.

Loop Powered (PowerlessTM):

OTEK manufactures the world's largest selection of loop powered instruments (and holds several patents). See www.otekcorp.com for our Loop Powered Models like LPE, LPM, LPL, LPI, LPX, LPB, LBD and LSB. All you need is your VDC power supply , your (or our) transducer and your (or our) display/controller or DCS/Scada/PLC (and wire).

3. The "SCD": (Contact OTEK for availability)

We substitute the SCX or SCT PCB with the digital PCB having a microcontroller, 12 Bit A/D and isolated (3KV) serial I/O hardware for USB, RS485, CAN or MODBUS (Looking for something else? We'll make it!). If you interface to <u>USB</u>, you can power the "SCD" from it (consumption = less than 50mA@5VDC), so you could power up to 10 "SCD's" from one port since they all have their own address (up to 255, {000 for default}). With serial I/O you have access to all the features of the "SCD", such as scale, zero, offset, average, math functions (+, -, x, %, and Sq. Root) x-y tables (25 points) & polynomials (to the 9th order), Hi-Hi, Hi & Low set points (digitally embedded in the serial data) addressing, polling or free running. Baud Rate (9.6K to 56K Baud) and much more! The distance is recommended to be under 5000 feet for RS485, 50 for USB, CAN & MODBUS but it is determined by the speed (Baud Rate), wiring and 5VDC power supply. Looking for a display? Just add our Model: HI-QREM, HI-Q111 or HI-Q112. Looking for a controller? Then use any of our HI-Q Series bargraph controllers.

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4.0 POWER INPUT (DIGIT 8)

The <u>SCV, SCT & SCD</u> series operate from 5 VDC. The <u>SCX</u> requires transmitter's power (loop powered) of 5-32VDC For other voltage input **OTEK** offers "piggyback" modules that convert 5, 12, or 24 VDC to isolated 5 VDC. The total thickness of the <u>SC</u> series is increased to 0.5", outline ("1x1") remains the same.

INPUT SIGNAL (DIGITS 4 & 5)

4. The Signal Conditioners: (Contact OTEK for Non-listed Items)

Note: This is the basic "SCV" all are 5VDC +/- 10% Power Input & 0-1VDC +/- 0.1% signal output into 100K Ohms load. External 5V zero & span are supplied by "SCT," "SCD" or "SCX."

If you select output option 1 on the 6th digit (4-20mA), you must select series "SCT" or "SCX." If you select **INPUT** option 00 (0-1VDC), you must select SCT or SCX and option 1 on the 6th digit. Example: SCT-00-1XX (X=Any Option).



SCT Shown With Donut Option 01



SCV Options 02-04, Shown Stand Alone

INPUTS

4.1 <u>0-5 AMPS A.C. (Options 01 & 02):</u>

Two versions are offered, the integral "Donut" (50-60Hz) option 01 provides isolation and allows you to pass through your cable (up to 0.3" [7.5mm] diameter) without disconnecting your C.T.

Option 02 is supplied with a 0.05 Ohm, 5W, 1% shunt attached to the pluggable connector. No isolation! Range is 40-10 K Hz. Both versions convert the AC signal using a true RMS to DC converter with accuracy >0.1% of signal and full scale input of 5AAC with maximum of 7.5AAC (10 seconds) and absolute maximum of 10 ACC (100 mS).

V/mA RMS-VDC NON-ISOLATED

FIG. SC-RM		(OF TOP VIEW	NS 01&02)	
N/C	O5			
SIG HI	04		40	+SIG OUT
SIG LO	О3	SC-RM	30	-SIG OUT
GND	02		20	GND
+5VOUT	□1		1□	+5V IN
	J1		J2	

4.3 <u>0-130 VOLTS AC: (Option 03)</u>

You must use a high accuracy step down P.T. (Potential Transformer) for isolation & reliability. Nominal 120VAC lines are <u>TRUE</u> RMS converted to DC. Accuracy & Linearity: +/- 1% of Signal.

V/mA RMS-VDC NON-ISOLATED

FIG.		(OF	1OIT	NS 02&03)
SC-RM		TOP VIEW	/	ı
N/C	05			
SIG HI	04		40	+SIG OUT
SIG LO	03	SC-RM	30	-SIG OUT
GND	02		20	GND
+5VOUT	□1		1 🗆	+5V IN
	J1		J2	

3

INPUTS

4.4 **HERTZ**: (Option 04)

(Range: 45-440Hz, to 10KHz on Request) We use the same input as for VAC (60-130 VAC), but we add a high accuracy & linearity F-V (Frequency to Voltage) converter to give you stable readings to +/- 0.1Hz. Accuracy & Linearity: +/- 0.1% of Signal.

<u> </u>	QUE	ENCTI	<u> </u>	<u>JLIS D</u> C
FIG.			(OP	TION 04)
SC-HZ		TOP VIEW	/	ı
N/C	05			
FREQ IN HI	04		40	+SIG OUT
FREQ IN LO	О3	SC-HZ	30	-SIG OUT
GND	02		20	GND
+5VOUT	<u> </u>		10	+5V IN
	J1J		2	

EDECLIENCY TO VOLTE DO

4.6 <u>1mADC</u>: (Option 06)

Ranges of 100uA, 1, 10 & 100mA are factory set, greater ranges available with external shunts (Contact OTEK for DC Shunts). The accuracy & linearity is +/- 0.1% of signal. We use a gain of "100" OP AMP to keep the shunt value low. 100uA: 100 Ohms, 1mA: 10 Ohms, 10mA: 1 Ohm, 100mA: 1 Ohm (gain of 10). Standard Range is 0-1mADC. Select power input on Digit 8, Options 1-9.

DC-DC CONVERTER & DIFF OP-AMP

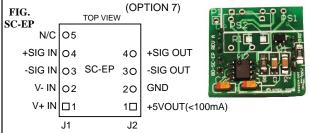
FIG. SC-EP		TOP VIEW		PTION 6)
N/C	05			
+SIG IN	04		40	+SIG OUT
-SIG IN	03	SC-EP	30	-SIG OUT
V- IN	02		20	GND
V+ IN	□1		1□	+5VOUT(<100mA)
	J1		J2	



4.7 <u>1VDC</u>: (Option 07): 0.1, 1, 10 & 100VDC ranges are available (Contact OTEK for others), accuracy & linearity is +/- 0.1% of signal. Input impedance is > 1 MEG Ohm

of signal. Input impedance is > 1 MEG Ohm. Standard input is 0-1VDC.

DC-DC CONVERTER & DIFF OP-AMP

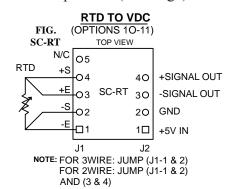


4.9 CUSTOM:

Here you can tell how you want to customize your Model SC. Contact OTEK for Watts AC or DC, integrators, etc.

4.10 TEMPERATURE PT100 RTD: (Option 10)

2, 3 or 4 wire? No problem, just connect your PT100 RTD (0.00385 TC) per instructions. We use a super stable (< 1mA) constant current source with dual feedback and a DIFF-OP AMP with compensation for greater linearity. Accuracy is better than 0.1% of full scale. Open RTD is positive (overange).





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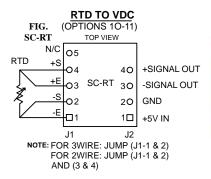
IN USA



INPUTS

4.11 TEMPERATURE PT1000 RTD (Option 11)

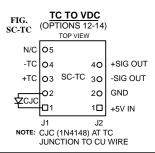
Same as the PT100, but for 1000 Ohm RTD 2, 3 or 4 wire. Contact OTEK for your RTD (PT200, 2K or ANSI 0.00392). Accuracy is better than 0.1% of full scale. Burn-up detection is positive (overange).





4.12 <u>TEMPERATURE THERMOCOUPLE</u> (TC): (Options 12-14)

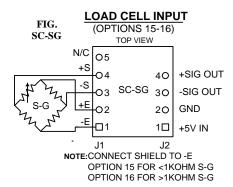
The TC's are not as good as the RTD's, but they are cheaper and have greater range to 2500 degrees C, RTD's are good to 800 degrees C. We use a Diff-OP AMP and cold junction compensation, linearization is done by the micro on the "SCD" Series for the entire temperature range or with hardware (on the SCT) in 300 degrees F (150 degrees C), therefore when you buy the "SC" TC option, you MUST specify the range of the interest within 300 degrees F (150 degrees C), I.E. 300-600 degrees F will get you accuracy within +/- 3 degrees C (5 degrees F) Open TC is positive (overange). Accuracy & Linearity is +/- 1% of signal.





4.15 <u>STRAIN-GAGE</u>< 1000 Ohms: (Option 15)

Strain gages are used in many transducers such as pressure (weight), tension (pull), level (float), acceleration, position, angle rotation and more! They are either monolithic (solid state) or discrete (wire). The most important information is their Impedance & Sensitivity. Typically wired S-G have impedances of 120, 300 or 350 Ohms and Sensitivity of 2 or 3mV per Volt of excitation (I.E. 2mV/V, meaning that if we excite it with 5V, we will get 10mV full scale at its output). 10mV is ok, since we use a highly stable Inst. Diff-OP AMP. The excitation is 4.096V with $\pm -0.01\%$ stability over the ± -20 to +60 degrees C temperature range +/- 50PPM/ degrees C. Our "SC" Series for S-G can excite any "wire" S-G (< 1K Ohm) from 120 to 1000 Ohm. Use this option #15 for wire S-G (<1K Ohm) and specify its sensitivity or we will ship it calibrated for 3mV/V (most popular). Accuracy & Linearity is +/- 0.02% of signal.





Note: If you use the SCT or SCX, the zero and span pots are accessible. If you use the SCD you have access to zero, span, offset, math functions, polynomials, X-Y tables and more!

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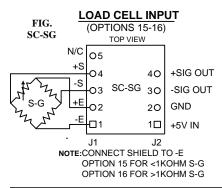
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INPUTS

4.16 STRAIN-GAGE / MONOLITHIC>1 K Ohms: (Option 16)

This option uses a constant current source of 0.5mA to excite monolithic strain-gages that typically have impedances of 1000-5000 Ohms. Again their impedance and sensitivity are very important to know, but be aware that some S-G's have amplified voltage output (0-1V). If this is your case use our VDC "SC" (option #07). If it is standard specify impedance, sensitivity and calibration (I.E. 1K Ohm, 3mV/V, 0-1.000 (for "SCD" version) or 4-20mA (for SCT or SCX) the high stability (0.5mA / 50PPM) constant current source will drive the S-G without overheating it. Accuracy & Linearity is +/- 0.1% of signal.





4.17 pH(ACIDITY): (Option 17)

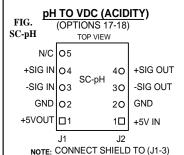
This conditioner uses a FET OP AMP with 10¹⁵ impedance, so as not to load your electrode. It's very important that you use shielded cable ("RG" Type Preferably) to minimize noise pick up. A common problem is "Ground Loops". If your solution's container is grounded, use options 2-4 on the 8th digit (isolated power supply) for the "SCT or SCX". Accuracy & Linearity is +/- 0.01% of signal.



pH TO VDC (ACIDITY)				
FIG. —	(OP	TIONS 1	7-18)	
SC-pH		TOP VIEW	/	
N/C				
+SIG IN	I	6C 2D	40	+SIG OUT
-SIG IN	О3	SC-pH	30	-SIG OUT
GND	02		20	GND
+5VOUT	□1		10	+5V IN
J1 J2				
NOTE: CONNECT SHIELD TO (J1-3)				

4.18 ORP (OXYGEN REDUCTION PO-TENTIAL): (Option 18)

This electrode outputs a high impedance 0-2000mV signal for 0-100% oxygen concentration, the "SC" buffers it and scales it down to 0-1VDC (0-100%) use same precautions as with the pH (Option #16). Accuracy & Linearity is +/- 0.01% of signal.





4.20 %RH (HUMIDITY): (Option 20)

Our "SC" interfaces and is calibrated for "Capacitance" type transducers with 0.6pF / %RH sensitivity (Honeywell's p/n HCH-1000 Series), but can be calibrated for other types such as 3pF / %RH. Just use option #09 and tell us the specs, otherwise we will ship option #20. The linearity & accuracy is +/- 2 %RH and the sensor can be plug-in right at the connector of the "SC" or remotely using shielded pair cable.

DC-DC CONVERTER & DIFF OP-AMP

FIG. SC-EP		TOP VIEW	,	PTIONS 30 & 35)
N/C	O5			
+SIG IN	04		40	+SIG OUT
-SIG IN	03	SC-EP	30	-SIG OUT
V- IN	02		20	GND
V+ IN	□1		1□	+5VOUT(<100mA)
	J1		J2	



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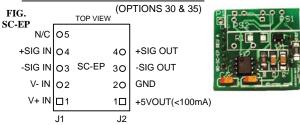


INPUTS

4.21 <u>LOGARITHMIC or LOG RATIO (Option 21)</u>

The 7 decade logarithmic amplifier is ideal for signal compression over a 7 decade range useful in many processes such as light, 4-20mA current. The accuracy & linearity is +/- 0.05% over 7 decades.

DC-DC CONVERTER & DIFF OP-AMP



TIME, EVENT, POSITION:

Contact OTEK for these and other discrete functions, they can be easily programmed on the "SCD" (uC), but not so easy on the "SCV". Use option #09 and tell us.

4.22 HIGH SPEED PEAK & HOLD

(Options 22-26)

Note: Only For "SCV" Series

This new option allows you to detect and hold fast transients (Peaks) <50K Hz (Specials to <100K Hz) with resolutions (increments) of > 0.1% of F.S. (>0.01% on request). The output is scaled to 0-1VDC.

5 options are available at present:

Option 22 is Loop Powered for 4-20mA, it is connected in series with your loop (<5 V burden), and its output (0.4-1.0V=4-20mA) is floating (not common) from the loop. It is ideal for analyzing transmitters/process disturbances.

Option 23 accepts 0-1 VDC F.S. Input.
Option 24 accepts 0-1mA DC F. S. Input.
Option 25 accepts 0-1 VAC RMS F. S. Input.
Option 26 accepts 0-1mA AC RMS F. S. Input.
Use Option "09" for other ranges and specify
(i.e., Option 24 with 0-100mA DC Range).

		K & HOLD IONS 22-26)			
SC-PD		TOP VIEW			
N/C	05				
+SIG IN	04	40	+SIG OUT		
RESET	03	30	-SIG OUT		
GND	02	20	GND		
+5VOUT	□1	1□	+5V IN		
	J1	J2			
NOTE: RESET: OPEN #3					

RUN: (J1-2 & 3) ALEWAYS RESET (OPEN#3) AFTER POWER ON



4.27 FREQUENCY (OPTION 27)

See Option 04 (40-20 K Hertz). We just scale it for wider range and input is 5V (TTL/CMOS) levels. Same accuracy.

FREQUENCY TO VOLTS DC

FIG.			(OP	TION 27)
SC-HZ		TOP VIEW	/	1
N/C	05			
FREQ IN H	04		40	+SIG OUT
FREQ IN LO	03	SC-HZ	30	-SIG OUT
GNE	02		20	GND
+5VOUT	- 🗆 1		1□	+5V IN
	J1J		2	'



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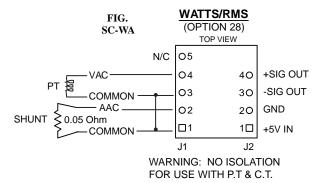


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INPUTS

4.28 WATTS DC/AC RMS (OPTION 28)

Warning: No isolation! Since we use 2 RMS-DC converters and multiplier, you can use it as Watts (ACV & ACA) or as multiplier (contact Otek for input ranges). Standard input is for use with potential transformer (P.T.) up to 150VAC and current transformer (C.T.) up to 5 AAC with a 0.05 Ohm, 5 Watt shunt (not supplied). The output is calibrated for 0-1VDC at 600 watts (120VACx5AAC). Power: 5VDC@2mA; accuracy & lineraity: 1% of F.S. For other ranges use Option #9 and specify.





4.31 NON-ISOLATED SIGNAL POWERED VAC (OPTION 31)

<u>Warning:</u> No isolation from main! Use with potential transformers (P.T.) only! We use a limiting capacitor and convert the VAC to VDC with RMS-DC and scale it. Min/Max measuring is 30-150 VAC and you can get 5 VDC (non-isolated) to power your circuits. (Maximum 20mADC).

See Figure SC-AC

4.32 NON-ISOLATED SIGNAL POWERED A AC (OPTION 32)

Warning: No isolation! Requires external C.T. current shunt (0.05 Ohm, 1%, 3W) and P. T.. Here we use the same VAC power supply and RMS-DC converter as in Option 31, meaning that it requires the VAC (2 wires) from the P.T. and the AAC (2 wires) from the C.T. One of the P.T. VAC input is common to one of the C.T. AAC input. Again, the range is 0-5 amps input, but the P.T. output must be 30-150VAC and you still can get 5 VDC@20mA for external use.

See Figure SC-AC

4.33 NON-ISOLATED SIGNAL POWERED HZ (OPTION 33)

Warning: No isolation! This is a combination of Option 31 (VAC) and Option 04 (Hertz) so the assembly is "sandwiched" (twice the thickness and same outline). The input range is 30-150 VAC and 40-70 Hz. 5 VDC out@20 mA is available.

NON-ISOLATED POWERLESS™

FIG. SC-AC	(OPTIONS 31 & 32)				
N/C	05				
ACVH	04		40	+SIGNAL OUT	
ACVL	03	SC-AC	30	SIGNAL GND	
ACAL	02		20	POWER GND	
ACAH	□1		1□	+5VDC OUT/IN	
	J1		J2	(<30mA)	



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4.34 RESISTANCE TO 4-20mA (OPTION 34)

Want a sinmple 4-20mA transmitter? Just connect a 20K Ohm (others on request) potentiometer to the SCT-34-101 and control any 4-20mA input valve, motor, tranducer, etc. If you want to display the signal, choose any of OTEK's Loop Powered™ displays. This option 34 uses our new SC-TR module. See paragraph 6.1B-the SC-TR has the same specifications and same connections.

4.35 4-20mA CURRENT LOOP ISOLATOR (OPTION 35) Another OTEK innovation, (Patent #7,477,080 and pending!) a 3K V loop powered isolator to eliminate hazardous potentials and ground loops! Just connect your existing (or new) loop signal load plus 7-28VDC power and the SCX-35-1X0 will solver your problemns in 1"

*Accuracy & Linearity: ±0.1% of input signal

*Isolation: <3K V RMS/DC

*Input Signal Burden: 5

square!

VDC@20mA/3.5V@4mA.

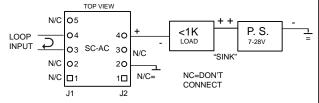
*Output Power Range (Compliance): 7-28+your load

*Min-Max Load: 0-1K Ohm

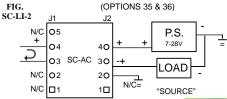
*Green LEDs=Input Signal On (>3.6<30mA)

*Red LEDs=Output Signal On (>3<26mA)





10-50mA CURRENT LOOP ISOLATOR (SOURCE)





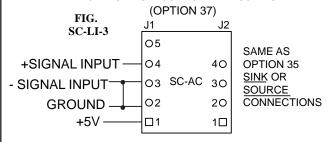
4.36 10-50mA CURRENT LOOP ISOLATOR (OPTION 36)

Do you have obsolete 10-50mA transmitters? This is the time to convert them to the industry standard of 4-20mA, and isolate them all at once! Other than the input range, it's the same as option 35.

4.37 0-1 VDC INPUT LOOP POWERED ISOLATOR (OPTION 37)

Here we use the same basic circuit as the previous options, except the signal input is 0-1VDC and it requires 5 VDC power at \sim 2mA, no input LEDs are included. If you want another input range, such as 1-5V or 0-10V, just order Option 09 and specify: 09=37=1-5V (or 0-10V), input=4-20mA output. We do the rest.

0-1VDC INPUT LOOP POWERED ISOLATOR



4.38 4-20mA INPUT; 1-5 VDC OUT (OPTION 38)

Here we add a 250.0 Ohm shunt across the output and convert the 4-10mA to 1-5 DC out. To avoid errors, you load should have ≥100K ohm input impedance.

We recommend source connection (Fig. SC-LI-2) for better noise immunity (grounded load).

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6. THE OUTPUTS (Digit 6)

6.0 <u>0-1 VDC OUT (SINGLE BOARD) "SCV"</u> VERSION: Option 0)

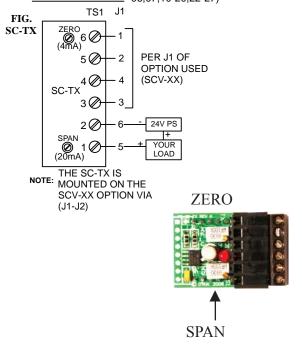
- * Power: 5VDC +/- 0.5V, 5mA maximum
- * Output: 0-1VDC FS into > 100K Ohms Load.
- * Mounting: Horizontal 0.1" centers header 0.25" long (vertical on request)
- * Connections: via PCB Mounting Header (.1" c-c)
- * Dimensions: 0.9 x 0.9 x 0.2"

6.1A 4-20mA OUT LOOP POWERED "SCX" VERSION: (Option 1, 6th Digit)

Note: This option is added to any signal conditioner selected (Digits 4 & 5) and adds \sim 0.5" to thickness (\sim .75" total).

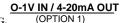
- * Power: 5-32VDC, plus line loss, plus "load" drop.
- * Output: 4mA = 0 signal, 20mA = full scale or as specified. (< 750 Ohm Load@24V Power)
- * Mounting: Horizontal (Vertical on Request).
- * Connections: P.C. pins for input signal, screw terminals for power & output signals.
- * Dimensions: 0.9" x 0.9" x 0.5" (Including Potentiometers for Zero & Span). Screw connector adds 1/2" to length (1.5" long).

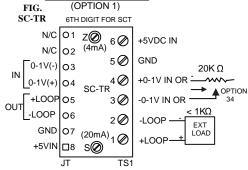
$\begin{array}{c} \textbf{POWERLESS 4-20mA LOOP}_{\text{(OPTIONS}} \\ \underline{\textbf{POWERED XMTR}}_{\text{06,07,10-20,22-27)} \end{array}$



6.1B 4-20 mA OUT (5VDC Power) SCT VERSION (Option 1, 6th digit)

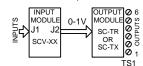
- * Power In: 5 VDC +/- 10%@ 200mA
- * Input: 0-1VDC From any "SC"
- * Output: 4-20mA into <1 K Ohm
- * Adjustments: Zero (4mA) & Span (20mA) Pots
- * Mechanical: Same as SCX series
- *Input Option #34: 0-20K Ohms=~0.4-20mA Out



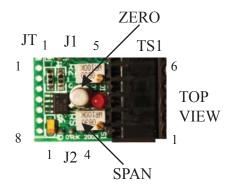


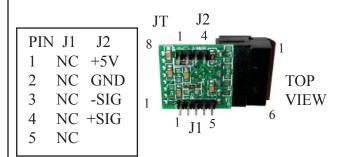
NOTE: ABOVE FOR STAND ALONE (SCT).

WHEN PART OF ASSEMBLY (ANY INPUT
OPTION 01-33) INPUTS ARE PER OPTION #.



NOTE: CONNECT INPUTS/OUTPUTS TO JT OR TS1 (NOT BOTH)





Note: you can use J1 for support.

520-748-7900

FAX: 520-790-2808 E-MAIL:sales@otekcorp.com http://www.otekcorp.com



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IN USA



6.2 PRELIMINARY-CONTACT OTEK. "SCD" (SERIAL I/O): (Option 2-5)

- * Power: 5VDC +/- 0.5V, 50mA Maximum
- * Output: Serial I/O, 9.6 to 56KB, USB, RS485, CAN or MODBUS Compatible.
- * Set Points: 4, (HH, H, L & LL)
- * Math Functions: +, -, x, Div., Sq. Root, X-Y Table (25), Polynomial (9th)
- * Addresses: 255 (000 Reserved for Default); Polling or Free Run
- * Isolation: 1500 RMS (Inputs to Outputs)
- * A/D Accuracy & Resolution: 12 Bits; Sampling Rate: 100K/Sec.

OTHER SPECIFICATIONS

ENVIRONMENTAL (ALL VERSIONS):

- * Operating Temperature Range: -20 to +60 (-4 to + 140 degrees F) to specs.
- * Storage Temperature Range: -30 to +75 degrees C (-22 to + 167 degrees F).
- * Humidity: 5-95 %RH Non-condensing

POWER INPUTS (8th digit):

Important Notes:

- 1. Series SCV, SCD & SCT require 5V to operate as stand alone.
- 2. Series SCX is PowerlessTM and it's powered by your 24 VDC (typical) power supply.
- 3. See valid part numbers.

7.0 The Housings (Digit 7):

Naked (Option 0):

Just plug it in (1 x 1 x 1/2") on your P.C.B. & connect!

06......1mADC (OTHERS ON REQUEST).

07.....1VDC (OTHERS SPECIFY).

09.....CUSTOM (SPECIFY & CONTACT OTEK)

10.....PT100 RTD (0.00385TC)

11.....PT1000 RTD (.00385TC)

12.....TYPE J THERMOCOUPLE-

13.....TYPE K THERMOCOUPLE-

14.....TYPE T THERMOCOUPLE-

15.....STRAIN-GAGE (> 1000 Ohm) 3mV/V-

16.....STRAIN-GAGE (< 1000 Ohm) 3mV/V-17.....pH (ACIDITY) +/-0.413mVFS-18.....ORP 2000mV F.S.-20.....%RH (HUMIDITY) 0.6pF/%-

21.....LOGARITHMIC (7 DECADE)-

22.....HI-SPEED P&H (4-20mA) LOOP POW'D

23.....HI-SPEED P&H (0-1 VDC F.S.)-

24.....HI-SPEED P&H (0-1mA DC F.S.)

25..... HI-SPEED P&H (0-1 VAC RMS F.S.)-

26.....HI-SPEED P&H (0-1mA AC RMS F.S.)-27.....FREQUENCY (40-20 KHZ)-

28.....WATTS/DC/AC RMS (MULTIPLIER)-31....POWERLESS NON-ISOLATED VAC (FOR P.T.) 32.. POWERLESS NON-ISOLATED A AC (FOR C.T. &P.T.)

33.....POWERLESS NON-ISOLATED HZ (40-70 HZ)

34.....RESISTANCE 0-20K=0.4-20mA

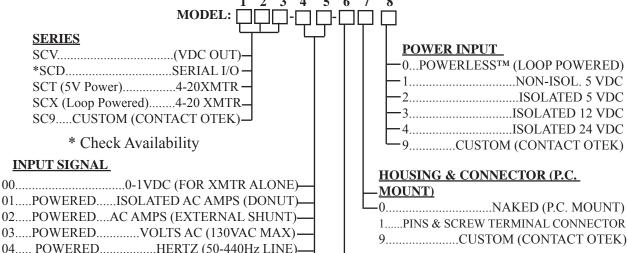
35......4-20mA INPUT LOOP POWERED ISOLATOR-

36.....10-50mA INPUT LOOP POWERED ISOLATOR

37......0-1VDC INPUT LOOP POWERED ISOLATOR-

38..4-20mA INPUT; 1-5VDC OUPUT L.P. ISOLATOR-

"SC" SERIES



OUTPUT 0......0-1VDC 1.....4-20mA 2.....1-5VDC · 5.....(PENDING).....USB · 6......(PENDING)......RS485 - 7.....(PENDING).....CAN

- 8......(PENDING)......MODBUS

- 9......CUSTOM (CONTACT OTEK)

Note: When you order the SCX, SCT



If you don't see it, ask for it!

Note: 1. SCX-35 thru 38-100 pins only.

VALID PART NUMBERS: (X=ANY OPTION)

- 1. SCV-XX-001--4 P.C. Pins Only
- *2. SCD-XX-2--501--4 (Pending-Contact OTEK)
- 3. SCT-00--27-10-1--4 & S.CT-34-1X0 Pins & Connector
- 4. SCX-00-34
- 5. SCV-31 THRU 33-000
- 6. SCT-38-210

or SCD they include the SCV module.





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