

USED ON

DWG NO 7-2252003-6  
THIS DRAWING IS A CONTROLLED DOCUMENT

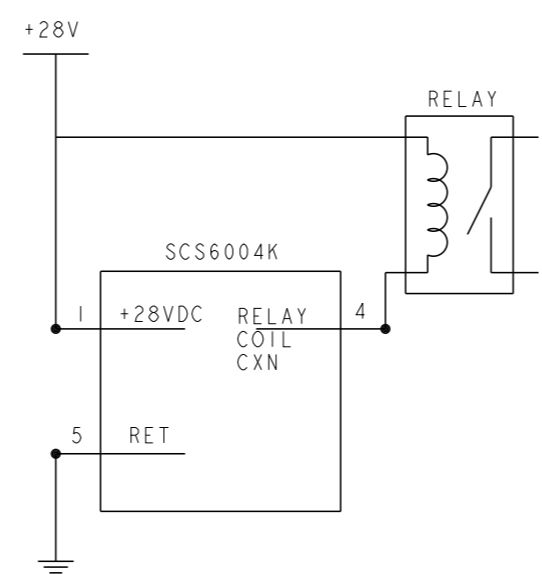
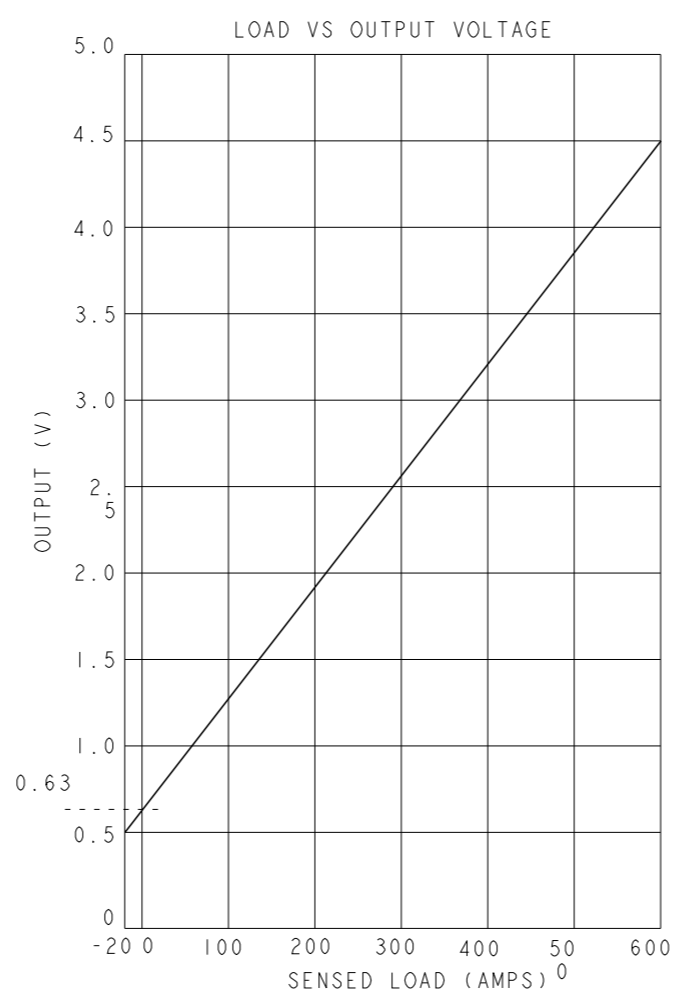
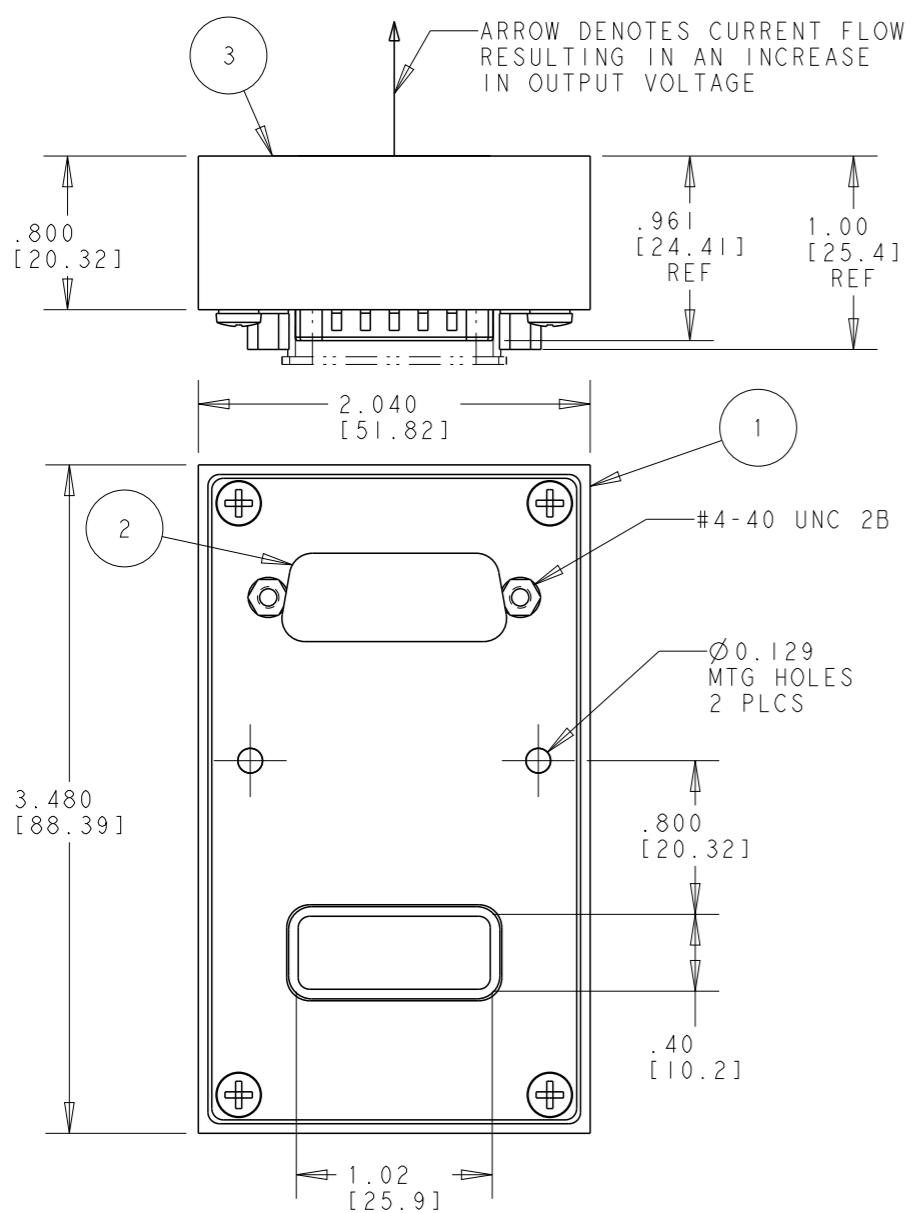


FIGURE 1- CONNECTION DIAGRAM BETWEEN SCS6004K AND EXTERNAL RELAY

POWER SUPPLY:  
SUPPLY VOLTAGE: 16 - 32 VDC  
CURRENT SUPPLY AT 28 VDC: 100mA MAX (EXCLUDES RELAY COIL CURRENT)

ANALOG OUTPUT:  
OUTPUT RANGE : 0.5VDC - 4.5VDC  
SENSED LOAD: -20 AMPS (MIN) TO 600 AMPS (MAX)  
ACCURACY: ±3.5% FULL SCALE  
SENSITIVITY: 6.45 MILLIVOLT/AMP  
OUTPUT TRANSFER FUNCTION:  
 $V = (\text{SENSEDLOAD} * \text{SENSITIVITY}) + 0.63$

EXTERNAL RELAY COIL CURRENT SPEC:  
PICK UP CURRENT : 10 AMPS (MAX) FOR 200 mSECS  
HOLD CURRENT : 0.75 AMPS (MAX)

OVERLOAD TRIP RESPONSE:

PIN-CONFIGURABLE NOMINAL LOAD SETTINGS	OVERLOAD TRIP TIMES	
	MIN.	MAX.
100% - 135% OF NOM LOAD	NO TRIP	NO TRIP
200% OF NOM LOAD	12 SEC	70 SEC
300% OF NOM LOAD	2.4 SEC	21 SEC
400% OF NOM LOAD	1 SEC	8 SEC
500% OF NOM LOAD	0.5 SEC	5.25 SEC
600% OF NOM LOAD	0.4 SEC	1.61 SEC
800% OF NOM LOAD	0.25 SEC	1.1 SEC
1000% OF NOM LOAD	0.22 SEC	0.9 SEC

REVERSE LOAD DETECTION:  
REVERSE LOAD TRIP LEVEL: -1A TO -20A  
TRIP RESPONSE TIME: 40 mSEC TO 450 mSEC

TRIP STATUS:  
CURRENT SINK (MAX): 35 mA

OVERLOAD DETECTION STATUS:  
CURRENT SINK (MAX): 35 mA

ENVIRONMENTAL/PHYSICAL CHARACTERISTICS  
TEMPERATURE RANGE: -40° TO +85° C  
WEIGHT: 200 GRAMS (MAX)  
ALTITUDE: 50,000 FT.

MEETS DO-160G SPECIFICATION FOR SHOCK, VIBRATION, TEMPERATURE AND ALTITUDE

EMI:  
MEETS DO-160G SPECIFICATION FOR POWER INPUT, VOLTAGE SPIKES, AF CONDUCTED SUSCEPTIBILITY, INDUCED SIGNAL SUSCEPTIBILITY, RF SUSCEPTIBILITY (RADIATED AND CONDUCTED), RF EMISSIONS, INDUCED LIGHTNING AND ESD

JURISDICTION: EXPORT ADMINISTRATION REGULATIONS  
ECCN: EAR99  
MARKING DATE: 10JUL2019  
THIS DOCUMENT CONTAINS CONTROLLED TECHNICAL DATA SUBJECT TO THE EXPORT ADMINISTRATION REGULATIONS (EAR). DISCLOSURE TO NON-US PERSONS WITHOUT U.S. GOVERNMENT AUTHORIZATION IS PROHIBITED. VIOLATIONS OF THESE EXPORT LAWS AND REGULATIONS ARE SUBJECT TO CIVIL AND CRIMINAL PENALTIES.

15-PIN D-SUB PIN ASSIGNMENT		
PIN	FUNCTION	IMPLEMENTATION/DESCRIPTION
1	+28VDC	PRIMARY POWER, HIGH
2	RESET	CYCLE MOMENTARILY TO GND TO RELEASE FROM TRIP MODE. LEAVE OPEN (OR > 14 VOLTS) FOR NORMAL OPERATION.
3	REVERSE LOAD DETECTION DISABLE	CONNECT TO GND TO DISABLE REVERSE LOAD DETECTION FEATURE. LEAVE OPEN (OR > 14 VOLTS) TO ENABLE FEATURE.
4	RELAY COIL CONNECTION	CONNECT TO RELAY COIL. REFER TO FIGURE 1 FOR CONNECTION GUIDANCE.
5	RETURN	PRIMARY POWER, GND
6	400A LOAD SELECT	CONNECT TO GND FOR 400-AMP NOM LOAD; 7 = 8 = OPEN
7	300A LOAD SELECT	CONNECT TO GND FOR 300-AMP NOM LOAD; 6 = 8 = OPEN
8	200A LOAD SELECT	CONNECT TO GND FOR 200-AMP NOM LOAD; 6 = 7 = OPEN
NOTE: ONLY ONE LOAD SELECT PIN CAN BE WIRED UP IN SYSTEM INSTALLATION. THE OTHER TWO MUST REMAIN UN-CONNECTED.		
9	ANALOG OUTPUT	MONITOR UP TO 600 AMP LOAD. REFER TO LOAD VS OUTPUT VOLTAGE GRAPH.
10	TRIP STATUS	HIGH IMPEDANCE = NORMAL MODE 0 V = TRIP MODE
11	OVERLOAD DETECTION FEATURE STATUS	HIGH IMPEDANCE = OVERLOAD DETECTION FEATURE ENABLED 0 V = FEATURE DISABLED NOTE: TO DISABLE FEATURE, SET THE WIRED LOAD SELECT PIN TO OPEN.
12, 13, 14, 15		INTERNALLY CONNECTED TO GND

FIND NO	QTY RECD	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	DRAWING OR SPECIFICATION	FSCM NO	TE PART NO	MATERIAL	HEAT TREAT
3	1	16043-157	NAME PLATE			2252005-8		
2	1	53304-002	CAP-DUST SUB-D			4-1616927-9		
1	1	48374-090	PRIMARY ASSEMBLY			6-2252002-4		

CAGE CODE: 74063  
Hartman Division 175 N. DIAMOND STREET MANSFIELD, OHIO 44902

DIMENSIONS: INCHES [mm]

TOLERANCES UNLESS OTHERWISE SPECIFIED:  
0 PLC ±  
1 PLC ±  
2 PLC ±.02  
3 PLC ±.005  
4 PLC ±

ANGLES ± 1°

SURFACE TEXTURE 63

RAJ 18JAN19  
CHK 18JAN19  
DKP 18JAN19  
APVD

ACB

NAME SMART CURRENT SENSOR

SCALE NONE SIZE A3 DRAWING NO 7-2252003-6 SHEET 1 OF 1 REV C

SCS6004K

REV	DESCRIPTION	DATE	BY	APP
C	ECO-19-010736, ADD ECCN	12JUL2019	RAG	RAG
B	RELEASE TO PROD FROM REV A	14JAN2019	RAJ	RAJ
A	REMOVE PRELIMINARY	03DEC2018	RAG	RAG
LTR	REVISION RECORD	DATE	DWN	APVD

THIS INFORMATION IS CONFIDENTIAL AND PROPRIETARY TO STE CONNECTIVITY LTD. AND ITS WORLDWIDE SUBSIDIARIES AND AFFILIATES (TE). IT MAY NOT BE DISCLOSED TO ANYONE, OTHER THAN TE PERSONNEL, WITHOUT AUTHORIZATION FROM TE (www.te.com).