FEATURES
- Linear output
- AC or DC current sensing
- Through-hole design
- Fast response time
- Output voltage isolation from input
- Minimum energy dissipation
- Maximum current limited only by conductor size
- Adjustable performance and built-in temperature compensation assures reliable operation
- Accurate, low cost sensing
- Operating temperature range –25 to 85°C
- Housing: PET polyester

LINEAR CURRENT SENSORS

MICRO SWITCH CS series linear current sensors incorporate our 91SS12-2 and SS94A1 linear output Hall effect transducer (LOHET™). The sensing element is assembled in a printed circuit board mountable housing. This housing is available in four configuration as shown in mounting dimension figures 1, 1a, 2 and 2a. Normal mounting is with 0.375 inch long 4-40 screw and square nut (not provided) inserted in the housing or a 6-20 self-tapping screw. The combination of the sensor, flux collector, and housing comprises the holder assembly. These sensors are ratiometric.

ORDER GUIDE — BOTTOM MOUNT WITH 9SS SENSOR, SOURCE OUTPUT

Catalog Listing	Mtg. Dim. Fig.	Supply Volt. (Volts DC)	Supply Current (mA Max.)	Sensed Current (Amps Peak)	Offset Volt. (Volts±10%)	Sensitivity mV•N* At 12 VDC		Offset Shift (%/°C)	Response Time (μ Sec.)
						Nominal	± TOL		
CSLA1CD	1	8 to 16	19	57	Vcc/2	49.6	5.8	±.05	3
CSLA1CE	1	8 to 16	19	75	Vcc/2	39.4	4.4	±.05	3
CSLA1DE	2	8 to 16	19	75	Vcc/2	39.1	4.8	±.05	3
CSLA1CF	1	8 to 16	19	100	Vcc/2	29.7	2.7	±.05	3
CSLA1DG	2	8 to 16	19	120	Vcc/2	24.6	2.1	±.05	3
CSLA1CH	1	8 to 16	19	150	Vcc/2	19.6	1.8	±.05	3
CSLA1DJ	2	8 to 16	19	225	Vcc/2	13.2	1.2	±.05	3
CSLA1EJ	1a	8 to 16	19	225	Vcc/2	13.2	1.5	±.05	3
CSLA1DK	2	8 to 16	19	325	Vcc/2	9.1	1.7	±.05	3
CSLA1EK	1a	8 to 16	19	325	Vcc/2	9.4	1.3	±.05	3
CSLA1EL	1a	8 to 16	19	625	Vcc/2	5.6	1.3	±.05	3

BOTTOM MOUNT WITH SS9 SENSOR, SINK/SOURCE OUTPUT

Catalog Listing	Mtg. Dim. Fig.	Supply Volt. (Volts DC)	Supply Current (mA Max.)	Sensed Current (Amps Peak)	Offset Volt. (Volts±2%)	Sensitivity mV•N* At 8 VDC		Offset Shift (%/°C)	Response Time (μ Sec.)
						Nominal	± TOL		
CSLA2CD	1	6 to 12	20	72	Vcc/2	32.7	3.0	±.02	3
CSLA2CE	1	6 to 12	20	92	Vcc/2	26.1	2.1	±.02	3
CSLA2DE	2	6 to 12	20	92	Vcc/2	25.6	2.2	±.02	3
CSLA2CF	1	6 to 12	20	125	Vcc/2	19.6	1.3	±.02	3
CSLA2DG	2	6 to 12	20	150	Vcc/2	16.2	1.1	±.02	3
CSLA2DJ	2	6 to 12	20	225	Vcc/2	8.7	0.6	±.020	3
CSLA2DH	2	6 to 12	20	235	Vcc/2	9.8	1.1	±.0125	3
CSLA2EJ	1a	6 to 12	20	310	Vcc/2	7.6	0.7	±.0125	3
CSLA2DK	2	6 to 12	20	400	Vcc/2	5.8	0.5	±.0125	3
CSLA2EL	1a	6 to 12	20	550	Vcc/2	4.3	0.4	±.0125	3
CSLA2EM	1a	6 to 12	20	765	Vcc/2	3.1	0.3	±.007	3
CSLA2EN	1a	6 to 12	20	950	Vcc/2	2.3	0.2	±.007	3

NOTE: When monitoring purely AC current with zero DC component, a capacitor can be inserted in series with the output of the current sensor. The capacitor will block out the effect of the temperature variation of the offset voltage which increases the accuracy of the device.

*N = number of turns

SIDE MOUNT WITH 9SS SENSOR, SOURCE OUTPUT

Catalog Listing	Mtg. Dim. Fig.	Supply Volt. (Volts DC)	Supply Current (mA Max.)	Current (Amps Peak)	Sensed Offset Volt. (Volts±10%)	Sensitivity mV•N* At 12 VDC Nominal	Sensitivity mV•N* At 12 VDC ± TOL	Offset Shift (%/°C)	Response Time (µ Sec.)
CSLA1GD	2a	8 to 16	19	57	Vcc/2	49.6	5.8	±.05	3
CSLA1GE	2a	8 to 16	19	75	Vcc/2	39.4	4.4	±.05	3
CSLA1GF	2a	8 to 16	19	100	Vcc/2	29.7	2.7	±.05	3

SIDE MOUNT WITH SS9 SENSOR, SINK/SOURCE OUTPUT

Catalog Listing	Mtg. Dim. Fig.	Supply Volt. (Volts DC)	Supply Current (mA Max.)	Sensed Current (Amps Peak)	Offset Volt. (Volts±2%)	Sensitivity mV•N* At 8 VDC Nominal	Sensitivity mV•N* At 8 VDC ± TOL	Offset Shift (%/°C)	Response Time (µ Sec.)
CSLA2GD	2a	6 to 12	20	72	Vcc/2	32.7	3.0	±.02	8
CSLA2GE	2a	6 to 12	20	92	Vcc/2	26.1	2.1	±.02	8
CSLA2GF	2a	6 to 12	20	125	Vcc/2	19.6	1.3	±.02	8
CSLA2GG	2a	6 to 12	20	150	Vcc/2	12.7	0.6	±.02	8

NOTE: When monitoring purely AC current with zero DC component, a capacitor can be inserted in series with the output of the current sensor. The capacitor will block out the effect of the temperature variation of the offset voltage which increases the accuracy of the device.

*N = number of turns.

MOUNTING DIMENSIONS (for reference only)

Figure 1

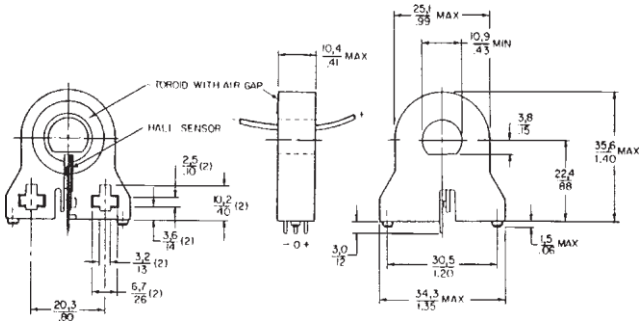


Figure 2

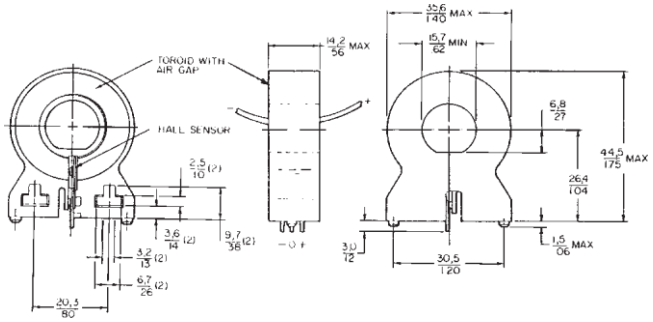


Figure 1a

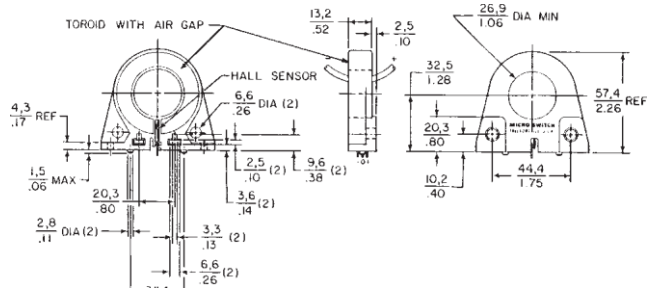
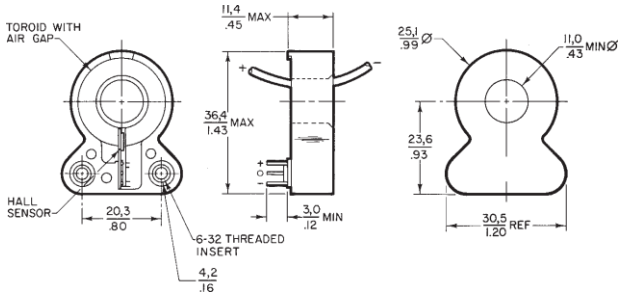


Figure 2a



* Application consideration: The output is clamped at the high end. Clamping voltage may be as low as 9VDC. The output will not exceed the clamping voltage regardless of field strength or supply voltage.

Current