



## Closed/Open Transducers (Cont.)

Fig.	Supply Voltage	Prim. Nom. r.m.s. Current	Sec. Nom. r.m.s. Current/Out. Volt.	Frequency Range (kHz)	Digi-Key Part No.	Price Each	LEM USA Inc. Part No.
						1 10 25	
17	5V	300A	5V	50	398-1065-ND	27.50 22.00 17.60	HASS 300-S
	5V	400A	5V	50	398-1066-ND	27.50 22.00 17.60	HASS 400-S
	5V	500A	5V	50	398-1067-ND	27.50 22.00 17.60	HASS 500-S
	5V	600A	5V	50	398-1068-ND	27.50 22.00 17.60	HASS 600-S
18	5V	5A	5V	50	398-1058-1-ND†	16.98 14.15 11.32	HMS 05-P
					398-1058-2-ND‡	2547.00/300	HMS 05-P
	5V	10A	5V	50	398-1059-1-ND†	16.98 14.15 11.32	HMS 10-P
					398-1059-2-ND‡	2547.00/300	HMS 10-P
	5V	15A	5V	50	398-1060-1-ND†	16.98 14.15 11.32	HMS 15-P
					398-1060-2-ND‡	2547.00/300	HMS 15-P
	5V	20A	5V	50	398-1061-1-ND†	16.98 14.15 11.32	HMS 20-P
					398-1061-2-ND‡	2547.00/300	HMS 20-P

Fig.	Supply Voltage	Prim. Nom. r.m.s. Current	Sec. Nom. r.m.s. Current/Out. Volt.	Frequency Range (kHz)	Digi-Key Part No.	Price Each	LEM USA Inc. Part No.
						1 10 25	
<b>NEW! AC Split Core Current Transducers — RoHS Compliant NEW!</b>							
19	—	50A	16.66mA	50/60 Hz	398-1078-ND	39.88 31.90 21.54	TT 50-SD
20	—	100A	33.33mA	50/60 Hz	398-1079-ND	45.25 36.20 24.44	TT 100-SD
21	Self-Powered	5A	0-10V	50/60 Hz	398-1080-ND	63.38 50.70 34.23	AT 5 B10
	Self-Powered	20A	0-10V	50/60 Hz	398-1081-ND	81.50 65.20 44.01	AT 20 B10
	Self-Powered	50A	0-10V	50/60 Hz	398-1082-ND	97.88 78.30 52.86	AT 50 B10
	Self-Powered	100A	0-10V	50/60 Hz	398-1083-ND	87.00 69.60 46.98	AT 100 B10
22	24 ± 5%VDC	50A	0-5V/0-10V	30-6000Hz	398-1084-ND	201.50 161.20 108.81	APR 50 B10
	24 ± 5%VDC	200A	0-5V/0-10V	30-6000Hz	398-1085-ND	221.63 177.30 119.68	APR 200 B10
<b>NEW! AC/DC Current Transducers — RoHS Compliant NEW!</b>							
23	20-50VDC	100A	0-10V	20-6000Hz	398-1086-ND	239.38 191.50 129.27	DHR 100 C10

† Cut Tape ‡ Tape and Reel ◆ RoHS Compliant

## SMD Current Transducer

The Minisens transducer is an ultra flat SMD open loop integrated circuit current transducer based on the Hall effect principle. The IC is calibrated to minimize offset and temperature drifts. **Advantages:** • Low cost • Excellent Linearity

Max. Curr. Range (A)	Supp. Volt.	Package	Digi-Key Part No.	Cut Tape Price Each	T&R Pricing	LEM USA Inc. Part No.
				1 10 25	2,600	
±100	5V	8-SOIC	398-1057-1-ND	5.28 4.40 3.52	6864.00/M	FHS 40-P/SP600

## Evaluation Kits for FHS 40-P/SP600



398-1069-ND	Evaluation Kit with PCB for 0 - 30A range, 78A maximum	\$37.20
398-1070-ND	Evaluation Kit with PCB for 0 - 5A range, 16A maximum	\$37.20
398-1071-ND	Evaluation Kit with PCB for 0 - 5A range, 11A maximum	\$37.20
398-1072-ND	Evaluation Kit with PCB for 0 - 10A range, 10A maximum	\$37.20
398-1073-ND	Evaluation Kit with PCB for 0 - 15A range, 55A maximum	\$37.20
398-1074-ND	Evaluation Kit with PCB for 0 - 16A range, 30A maximum	\$37.20



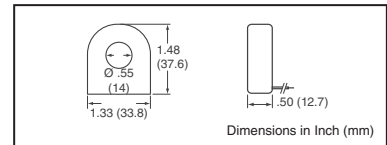
## Current Sensors

### Remote Current Indicators — Model 18-600

CR Magnetics Remote Electrical Current Indicators provides an effective method for remote monitoring of electrical current. When the current exceeds the turn-on point of the sensing transformer, the LED illuminates to indicate the presence of current.

**Specifications:** • Indicating Range: 2.5 - 100 Amps (1-Wire Pass) • Minimum turn-on point: 2.5 Amps • Maximum Cont. Current: 100 Amps

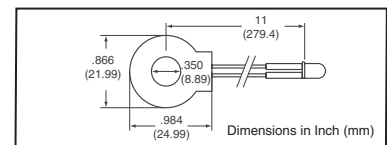
Digi-Key Part No.	Price Each	CR Magnetics Part No.
	1 10 25	
582-1036-ND	34.29 29.15 27.43	MODEL 18-600



### Current Indicators — CR2550 Series

The CR2550 series remote current indicators are designed as a low cost method for providing a visual indication of electrical current flow. **Specifications:** • 20 AAC Maximum, 600 VAC Maximum Rating • 50 - 1kHz Bandwidth

LED Color	Turn On Point (1 pass) AAC	Digi-Key Part No.	Price Each	CR Magnetics Part No.
			1 10 25	
Red	0.75	582-1003-ND◆	11.50 8.90 8.37	CR2550-R



### NEW! Transducers/Transmitters



**CR4100 Series:** Designed for applications where AC current waveforms are not purely sinusoidal. These devices are ideal in chopped wave and phase fired control systems.

**CR4210 Series:** Calibrated to provide a 0-5VDC and 0-10VDC signal that is proportional to the average RMS input AC current.

**CR4200 Series:** Produces a calibrated 4-20mADC signal that is proportional to the average RMS input AC current. The output signal is generated from a user supplied 24VDC power supply within the output current loop.

**CR4400 Series:** Designed to provide a DC output proportional to the AC current input.

**CR5200 Series:** Designed to provide a DC signal which is proportional to a DC sensed current. The ranges 2-10 Amp utilize an advanced Magnetic Modulator technology and the ranges 20 Amps and above utilize Hall Effect technology.

**CR4500 Series:** Designed for applications where AC voltage waveforms are not purely sinusoidal

**CR5300 Series:** Designed to provide an output DC signal that is proportional to the input DC voltage.

**CR6600 Series:** Designed to give a DC output that is proportional to an input frequency value.

Fig.	Output Range	Input Range	Digi-Key Part No.	Price Each	CR Magnetics Part No.
				1 10 25	
<b>True RMS AC Current Transducers</b>					
1	0-5 VDC	0-10 AAC	582-1046-ND	270.97 232.26 216.78	CR4110-10
	0-5 VDC	0-15 AAC	582-1047-ND	270.97 232.26 216.78	CR4110-15
	0-5 VDC	0-20 AAC	582-1048-ND	270.97 232.26 216.78	CR4110-20
	0-5 VDC	0-25 AAC	582-1049-ND	270.97 232.26 216.78	CR4110-25
	4-20 mADC	0-30 AAC	582-1050-ND	299.76 256.94 239.81	CR4120-30
	4-20 mADC	0-40 AAC	582-1051-ND	299.76 256.94 239.81	CR4120-40
4-20 mADC	0-75 AAC	582-1052-ND	299.76 256.94 239.81	CR4120-75	
<b>Self-Powered AC Current Transducer</b>					
1	0-5 VDC	0-50 AAC	582-1053-ND	151.18 129.59 120.95	CR4210-50
<b>Loop-Powered AC Current Transmitters</b>					
1	4-20 mADC	0-5 AAC	582-1056-ND	134.70 115.46 107.76	CR4220-5
	4-20 mADC	0-10 AAC	582-1054-ND	134.70 115.46 107.76	CR4220-10
	4-20 mADC	0-20 AAC	582-1055-ND	134.70 115.46 107.76	CR4220-20
<b>Average RMS AC Current Transducers</b>					
1	0-5 VDC	0-50 AAC	582-1057-ND	129.59 111.08 103.67	CR4410-50
	4-20 mADC	0-30 AAC	582-1058-ND	145.79 124.97 116.64	CR4420-30

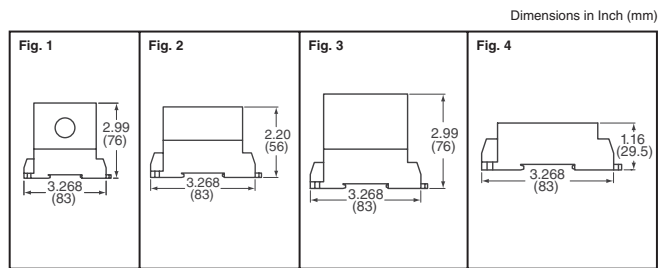


Fig.	Output Range	Input Range	Digi-Key Part No.	Price Each	CR Magnetics Part No.
				1 10 25	
<b>DC Current Transducers</b>					
1	0-5 VDC	0-2 ADC	582-1060-ND	149.73 128.34 119.79	CR5210-2
	0-5 VDC	0-5 ADC	582-1061-ND	149.73 128.34 119.79	CR5210-5
	0-5 VDC	0-10 ADC	582-1059-ND	149.73 128.34 119.79	CR5210-10
	4-20 mADC	0-2 ADC	582-1063-ND	178.26 152.79 142.61	CR5220-2
4-20 mADC	0-10 ADC	582-1062-ND	178.26 152.79 142.61	CR5220-10	
4-20 mADC	0-20 ADC	582-1064-ND	178.26 152.79 142.61	CR5220-20	
<b>True RMS AC Voltage Transducers (Single Phase)</b>					
2	0-5 VDC	0-250 ADC	582-1065-ND	270.97 232.26 216.78	CR4510-250
	4-20 mADC	0-150 ADC	582-1066-ND	299.46 256.68 239.57	CR4520-150
<b>True RMS AC Voltage Transducer (3-Phase, 3-Wire)</b>					
3	0-5 VDC	0-150 VAC	582-1067-ND	477.79 409.53 382.23	CR4550-150
<b>Frequency Transducers</b>					
3	0-5 VDC	0-100 Hz	582-1072-ND	154.89 132.77 123.92	CR6610-100
	4-20 mADC	0-100 Hz	582-1073-ND	171.75 147.21 137.40	CR6620-100
<b>DC Voltage Transducers</b>					
4	0-5 VDC	0-50 VDC	582-1069-ND	222.53 190.74 178.03	CR5310-50
	0-5 VDC	0-200 VDC	582-1068-ND	222.53 190.74 178.03	CR5310-200
	4-20 mADC	0-50 VDC	582-1071-ND	239.23 205.05 191.38	CR5320-50
	4-20 mADC	0-100 VDC	582-1070-ND	239.23 205.05 191.38	CR5320-100

(Continued)

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## Current Sensors (Cont.)

### High Ratio Transformers

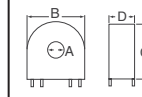
The CR8300 series of PCB Mounted Current Transformers and the CR8400 series of Wire Lead Current Transformers are available in a wide range of sizes and materials to meet any AC current sensing needs.



Fig.	I <sub>r</sub> †	V <sub>max</sub> RMS‡	Te†	Frequency kHz	Digi-Key Part No.	Price Each	1	10	25	CR Magnetics Part No.
<b>General Purpose Vertical PCB Current Transformers</b>										
1	10	1.0	1613	20 - 1	582-1009-ND	6.50	5.02	4.72		CR8320-1600
	50	10.2	2046	20 - 1	582-1010-ND	8.53	6.59	6.20		CR8348-2000
	75	10.3	1520	20 - 1	582-1012-ND	9.10	7.03	6.62		CR8349-1500
	200	14.6	2037	20 - 1	582-1014-ND	11.83	9.14	8.60		CR8350-2000
<b>Revenue Grade Vertical PCB Current Transformers</b>										
1	40	2.3	2510	20 - 1	582-1011-ND	9.53	7.38	6.94		CR8348-2500-N
	75	4.8	2512	20 - 1	582-1013-ND	10.68	8.24	7.76		CR8349-2500-N
	100	7.2	2511	20 - 1	582-1015-ND	14.95	11.55	10.87		CR8350-2500-N
<b>General Purpose Current Transformer</b>										
2	20	2.1	1012	20 - 1	582-1017-ND	8.53	6.59	6.20		CR8410-1000
<b>Revenue Grade Current Transformer</b>										
2	100	7.2	2511	20 - 1	582-1019-ND	18.35	14.18	13.34		CR8459-2000-N
<b>Ground Fault Current Transformers</b>										
2	4	0.3	1005	20 - 200	582-1016-ND	8.08	6.26	5.89		CR8401-1000-G
	20	2.0	1011	20 - 200	582-1018-ND	10.60	8.19	7.71		CR8420-1000-G

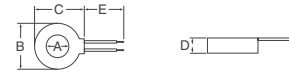
† Maximum Input Current to be linearly sensed § Maximum Linear Voltage (Saturation) CT will develop at I<sub>r</sub>  
‡ Effective turns ratio including losses

Fig. 1



Part No. Prefix	Dimensions Inch (mm)			
	A Min.	B Max.	C Max.	D Max.
CR8320	.22 (5.5)	.77 (19.6)	.79 (20)	.34 (8.6)
CR8348	.27 (6.9)	.93 (23.5)	.98 (25)	.43 (11)
CR8349	.35 (9)	1.02 (26)	1.01 (28)	.67 (17)
CR8350	.50 (12.8)	1.48 (37.5)	1.54 (39)	.55 (14)

Fig. 2



Part No. Prefix	Dimensions Inch (mm)				
	A Min.	B Max.	C Max.	D Max.	E Typ.
CR8410	.35 (8.89)	.87 (22.10)	1.02 (25.91)	.35 (8.89)	2.87 (72.90)
CR8459	.75 (19.05)	1.89 (48.01)	2.36 (59.94)	.67 (17.02)	7.88 (200.15)
CR8401	.23 (5.84)	.71 (18.03)	.83 (21.08)	.31 (7.87)	.79 (20.07)
CR8420	.57 (14.48)	1.20 (30.48)	1.28 (32.51)	.37 (9.40)	3.74 (95.00)

### Split-Core Current Transformer

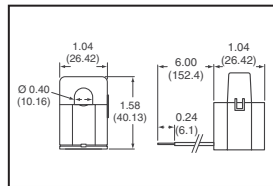


The CR3110 Split-Core Current Transformer is designed to provide a low cost method to monitoring electrical current. A unique hinge and locking snap allows attachment without interrupting the current-carrying wire.

#### Specifications:

- Maximum Continuous Primary Current: 75 AAC
- Secondary Turns: 3000
- DC Resistance: 460Ω @ 20°C
- Frequency: 50/60Hz

Dimensions in Inch (mm)



Digi-Key Part No.	1	10	25	CR Magnetics Part No.
582-1004-ND	15.50	11.98	11.28	CR3110-3000

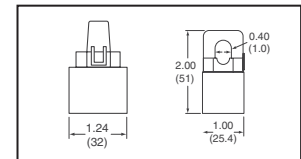
### Low Cost Current Sensors



#### Specifications:

- Accuracy: ±.5% Full Scale
- Ripple: 1% Maximum
- Signal Out: 0-5 Vdc
- Output Load: 1.0MΩ or greater for rated accuracy
- Response Time: 250ms Maximum 10-90% Full Scale
- Frequency: 50-400Hz (All specifications for operation @ 60Hz)

Dimensions in Inch (mm)



AAC	Window Dia. (inch)	Digi-Key Part No.	1	10	25	CR Magnetics Part No.
10	0.40‡	582-1033-ND	30.28	29.26	27.53	CR9580-10
20	0.40‡	582-1034-ND	30.28	29.26	27.53	CR9580-20

‡ Window Split Core

### Current Switches



The CR9321 series and the CR9380 series is a low cost, self powered, fixed set-point Current Switch designed for applications that require an on-off indication of current flow.

**Specifications:** • Rated full-on: 0.350 Aac RMS • Turn-on Time: 100 ms Maximum @ rated full on • Turn-off Time: 250 ms Maximum to 80% of V<sub>ce</sub> • Maximum Sense Current: Continuous: 100 Aac, 1 Second: 500 Aac • Frequency:

50 - 400Hz (All specifications for operation @ 60 Hz only)  
• Operating Temperature: -30°C - 60°C

DC Switching (NPN or PNP): • V<sub>ce</sub> (full off): 30 Vdc Maximum  
• Isink (full on): 120 mAdc Maximum @ rated full-on

AC Switching (ACA): • Off State Voltage: 240 Vac RMS Maximum • Minimum Switch Voltage: 24 Vac RMS • On State Current: 1.0 Aac RMS Maximum continuous

Dimensions in Inch (mm)

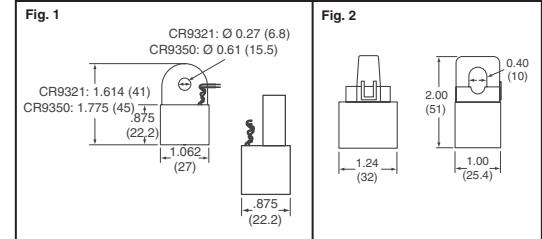


Fig.	Transistor Output	Window Dia.	Digi-Key Part No.	1	10	25	CR Magnetics Part No.
1	ACA‡	0.27	582-1020-ND	23.60	18.25	17.17	CR9321-ACA
	NPN	0.27	582-1021-ND	23.60	18.25	17.17	CR9321-NPN
	PNP	0.27	582-1022-ND	23.60	18.25	17.17	CR9321-PNP
2	NPN	Split Core	582-1027-ND	30.28	29.26	27.53	CR9380-NPN

‡ AC Output

### NEW! Sensors



**CR4395 Series:** Current Sensing Relay that provides an effective and highly stable method for monitoring electrical current. The current-carrying wire is routed through the opening extending from the top of the case. When current reaches the level set by the trip point adjustment, the relay trips and starts the adjustable timer. After the timer cycles the electromechanical relay is energized.

**CR5395 Series:** Direct Current Sensing Relay that provides a precision and cost effective method for monitoring direct current. Magnetic Modulator Technology is utilized for the current sensing to provide a stable and highly repeatable current

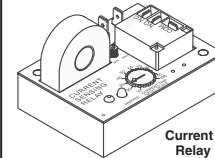
trip. The current-carrying wire is routed through the opening extending from the top of the case. When current reaches the level set by the trip point adjustment, the relay trips and starts the adjustable timer. After the timer cycles the electromechanical relay is energized.

**CR7310 Series:** Ground Fault Sensor that provides a reliable and cost effective method for sensing ground faults. The current-carrying wires are routed through the opening extending from the top of the case. When ground current reaches the level set by the trip point adjustment, the relay trips, illuminates the tripped LED and provides an output signal.

#### TRIP STATUS:

**EH:** Energized on High, trips when sense current is above trip point and returns to non-trip status when sense current is below the trip point.

**EL:** Energized on Low, trips when sense current is below trip point and returns to non-trip status when sense current is above the trip point.



Current Sensing Relay Shown

Trip Status	Supply Voltage	Trip Range	Time On Delay	Trip Point Dial	Transformer	Digi-Key Part No.	1	10	25	CR Magnetic Part No.
<b>Current Sensing Relay</b>										
EH	120 VAC	1.0 - 10 AAC	None	Calibrated Dial	Internal	582-1074-ND	125.79	107.82	100.64	CR4395-EH-120-110-X-CD-ELR-I
EH	120 VAC	3.0 - 30 AAC	.5 - 6 Sec.	Calibrated Dial	Internal	582-1075-ND	125.79	107.82	100.64	CR4395-EH-120-330-A-CD-ELR-I
EH	120 VAC	6.0 - 60 AAC	.5 - 6 Sec.	Calibrated Dial	Internal	582-1076-ND	125.79	107.82	100.64	CR4395-EH-120-660-A-CD-ELR-I
EL	120 VAC	1.0 - 10 AAC	.5 - 6 Sec.	Calibrated Dial	Internal	582-1077-ND	125.79	107.82	100.64	CR4395-EL-120-110-A-CD-ELR-I
<b>Direct Current Sensing Relay</b>										
EH	24 VDC ± 10%	1.0 - 10 ADC	None	Calibrated Dial	Internal	582-1078-ND	141.40	121.20	113.12	CR5395-EH-24D-110-X-CD-ELR-I
EH	85 - 265 VAC	1.0 - 10 ADC	None	Calibrated Dial	Internal	582-1079-ND	141.40	121.20	113.12	CR5395-EH-ACV-110-X-CD-ELR-I
<b>Ground Fault Sensor</b>										
EH	120 VAC	.01 - 0.1 AAC	None	Calibrated Dial	Internal	582-1080-ND	202.63	173.69	162.11	CR7310-EH-120-.01-1-X-CD-ELR-I
EH	120 VAC	0.1 - 1.0 AAC	None	Calibrated Dial	Internal	582-1081-ND	202.63	173.69	162.11	CR7310-EH-120-.11-X-CD-ELR-I
EL	120 VAC	.01 - 0.1 AAC	None	Calibrated Dial	Internal	582-1082-ND	202.63	173.69	162.11	CR7310-EL-120-.01-1-X-CD-ELR-I

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N



## Open Loop Current Sensors Hall Effect Technology

**Fig. 1 — L01Z Series**

1 OUT  
2 GND  
3 5V

**Fig. 2 — L03S Series**

1 +15V  
2 -15V  
3 OUT  
4 GND

**Fig. 3 — L07P Series**

1 +5V  
2 NC  
3 OUT1  
4 OUT2  
5 GND  
6 +IN1  
7 -IN2  
8 +IN2  
9 -IN2

**Fig. 4 — L08P Series**

1 +Vc (15V)  
2 -Vc (15V)  
3 OUT  
4 GND  
5 NC

**Fig. 5 — L18P Series**

1 -V cc  
2 GND  
3 +V cc  
4 OUT  
5 + Primary Input  
6 - Primary Input

A hall effect current sensor measures the magnetic flux which is produced proportionally to the current without any contact with the primary circuit. This results in no voltage drop in the measured circuit which provide excellent galvanic isolation. **Features:** • Galvanic isolation between primary and measuring circuit, measures DC or AC (kHz) • Zero insertion loss • Quick response **Specifications** (measured at Input Voltage and @ 25°): • Frequency Band Width (-3dB): L01Z, L03S, L08P, L18P: DC-50kHz; L07P: DC-5kHz • Output Linearity: ±1% • Operating Temperature: -10°C - 80°C • Insulation Resistance @ 500VDC: ≥500MΩ - di/dt • Response Time: 5μ Sec. Typ. (10μ for L08P Series) • Load Resistor: 10kΩ 3mW minimum.

Fig.	Primary Nominal Current (A)	Supply Voltage (V)	Secondary Output Volt. (V)	Saturation Current (A)	Offset Temp. Coefficient (mV/C)	Digi-Key Part No.	1	10	25	50	Tamura Part No.
<b>L01Z Series</b>											
1	±50	+5	4†	±62.5	±2	MT7173-ND	17.75	14.20	11.36	10.65	L01Z050S05
	±100	+5	4†	±125	±1	MT7174-ND	17.75	14.20	11.36	10.65	L01Z100S05
	±150	+5	4†	±187.5	±1	MT7175-ND	17.75	14.20	11.36	10.65	L01Z150S05
	±200	+5	4†	±250	±1	MT7176-ND	17.75	14.20	11.36	10.65	L01Z200S05
	±400	+5	4†	±500	±1	MT7178-ND	17.75	14.20	11.36	10.65	L01Z400S05
	±600	+5	4†	±750	±1	MT7180-ND	17.75	14.20	11.36	10.65	L01Z600S05
<b>L03S Series (Molex Mating Connector Required)</b>											
2	±50	±15	±4	±150	±2	MT7181-ND	17.48	13.98	11.19	10.49	L03S050D15
	±200	±15	±4	±600	±1	MT7183-ND	17.48	13.98	11.19	10.49	L03S200D15
	±400	±15	±4	±700	±1	MT7185-ND	17.48	13.98	11.19	10.49	L03S400D15
	±500	±15	±4	±700	±1	MT7186-ND	17.48	13.98	11.19	10.49	L03S500D15
<b>L07P Series — RoHS Compliant</b>											
3	±3	±15	±4	±9	±2	MT7297-ND	17.90	14.32	11.46	10.74	L07P003D15
	±5	±15	±4	±15	±2	MT7298-ND	17.90	14.32	11.46	10.74	L07P005D15
	±10	±15	±4	±30	±2	MT7299-ND	17.90	14.32	11.46	10.74	L07P010D15
	±15	±15	±4	±45	±2	MT7300-ND	17.90	14.32	11.46	10.74	L07P015D15
	±20	±15	±4	±60	±2	MT7301-ND	17.90	14.32	11.46	10.74	L07P020D15
	±25	±15	±4	±75	±2	MT7302-ND	17.90	14.32	11.46	10.74	L07P025D15
<b>L08P Series</b>											
4	±50	±15	±4	±150	±2	MT7188-ND	16.20	12.96	10.37	9.72	L08P050D15
	±100	±15	±4	±300	±1	MT7189-ND	16.20	12.96	10.37	9.72	L08P100D15
	±150	±15	±4	±350	±1	MT7190-ND	16.20	12.96	10.37	9.72	L08P150D15
<b>L18P Series — RoHS Compliant</b>											
5	±3	±15	±4	±9	±1.5	MT7311-ND	12.60	10.08	8.07	7.56	L18P003D15
	±5	±15	±4	±15	±1.5	MT7312-ND	12.60	10.08	8.07	7.56	L18P005D15
	±10	±15	±4	±30	±1.5	MT7313-ND	12.60	10.08	8.07	7.56	L18P010D15
	±15	±15	±4	±45	±1.5	MT7314-ND	12.60	10.08	8.07	7.56	L18P015D15
	±20	±15	±4	±60	±1.5	MT7315-ND	12.60	10.08	8.07	7.56	L18P020D15
	±25	±15	±4	±60	±1.5	MT7316-ND	12.60	10.08	8.07	7.56	L18P025D15
	±30	±15	±4	±90	±1.5	MT7317-ND	12.60	10.08	8.07	7.56	L18P030D15

† + Vref = 2.5V at 0 Amps ♦ RoHS Compliant

WM2022-ND	Waldom Molex, 4 Position Housing (2.50mm) KK Series	\$59
WM2312-ND	Waldom Molex, Crimp Terminal - Wire Size: 22-30AWG; Insulation Dia.: .062" (1.57) Max; Finish: Selective Gold 15u"	\$2.58/10
WM1129-ND	Waldom Molex, Crimp Terminal - Wire Size: 22-30AWG; Insulation Dia.: .062" (1.57) Max; Finish: Gold 15u"	\$8.32/10
WM1114-ND	Waldom Molex, Crimp Terminal - Wire Size: 22-30AWG; Insulation Dia.: .062" (1.57) Max; Finish: Tin	\$1.19/10
WM9999-ND	Waldom Molex, Universal Crimp Tool	\$50.75
WM9927-ND	Waldom Molex, Extraction Tool	\$6.77
WM9915-ND	Waldom Molex, Production Tool - Wire Size: 24-30AWG	\$228.96

## Closed Loop Multi-range Current Sensors

Selectable Input Pin Configuration

1/3 Nom. If (A)	6	5	4
1/2 Nom. If (A)	6	5	4
Nominal If (A)	6	5	4

OUT 4  
5 6  
IN 3  
2 1

Closed loop (compensated) current sensor provides an exact duplication of the primary current scaled by the number of turns in the secondary coil. Each multi-range sensor has a nominal sensing current but can be changed by configuring the primary pins. The sensing current can be scaled down by 1/2 or 1/3 the nominal output sensing current, which gives you the flexibility to sense 3 different current ranges with only one part.

**Specifications** (measured at input voltage and 25°C): • Frequency Bandwidth S22P(1dB): DC-200kHz (at higher frequencies derating is required to prevent core from overheating) • Output Linearity: ±0.25% • Operating Temperature: -10°C - 85°C • Insulation Resistance @ 500VDC: ≥ 500MΩ • Response Time: 1μSec. • Load Resistor 10kΩ 3mW Minimum

Primary Nominal Current (A)	Supply Voltage (V)	Secondary Output Volt. (V)±1%	Saturation Current (A)	Offset Temp. Coefficient (mV/C)	Digi-Key Part No.	1	10	25	50	Tamura Part No.	
<b>S22P Series</b>											
±6	+5	2.5±30mV	±18	1.25	MT7318-ND	15.18	12.14	9.72	9.11	S22P006S05	
±15	+5	2.5±20mV	±45	1.25	MT7319-ND	15.18	12.14	9.72	9.11	S22P015S05	
±25	+5	2.5±15mV	±75	1.25	MT7320-ND	15.18	12.14	9.72	9.11	S22P025S05	



## Current Transformer Standard Accuracy Low-Cost 50/60 Hz

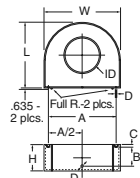
### Applications:

- Sensing current overload
- Ground fault detection
- Metering

### Notes:

• RCF: Ratio Correction Factor. Multiply current readings by this factor to compensate for transformer losses. • Data is deemed reliable at the time of publication, but may be subject to change without notice.

Size Code	Dimensions — mm							
	W	L	H	A	B	C	D (Dia.)	ID
A	23.83	23.83	11.13	15.24	7.62	1.75	0.81	9.53
B	30.18	30.18	14.30	20.32	10.16	2.08	1.02	11.43
C	34.93	34.93	14.30	25.40	10.16	2.08	1.02	14.61
D	38.10	38.10	15.88	30.48	10.16	2.84	1.02	14.61
E	44.45	44.45	14.30	35.56	10.16	2.08	1.02	19.05
F	55.58	55.58	20.65	45.72	12.70	3.96	1.02	23.88



Size Code	Rated Ip Amps	Turns Ratio	Nominal DCR	RCF @ 10% (1)	Volts/Amp @ Rated Ip, for Various Loads (I)				Digi-Key Part No.	Price Each			Amveco Part No.
					100	500	2K	5K		1	10	25	
A	5.0	1000:1	39	1.040	0.10	0.45	1.35	1.8	TE1005-ND	7.80	6.50	5.20	AC-1005
A	10.0	1000:1	39	1.035	0.10	0.45	1.00	1.3	TE1010-ND	7.80	6.50	5.20	AC-1010
A	15.0	1000:1	39	1.030	0.10	0.43	0.80	1.0	TE1015-ND	7.80	6.50	5.20	AC-1015
A	20.0	1000:1	39	1.030	0.10	0.42	0.70	0.8	TE1020-ND	6.39	5.33	4.26	AC-1020
B	25.0	1000:1	46	1.020	0.10	0.40	1.00	1.2	TE1025-ND	9.33	7.78	6.22	AC-1025
B	30.0	1000:1	46	1.020	0.10	0.40	0.85	1.1	TE1030-ND	9.36	7.80	6.24	AC-1030
C	40.0	1000:1	46	1.020	0.10	0.45	0.75	1.0	TE1040-ND	10.83	9.03	7.22	AC-1040
C	50.0	1000:1	46	1.020	0.10	0.44	0.70	0.8	TE1050-ND	11.76	9.80	7.84	AC-1050
D	60.0	1000:1	23	1.020	0.10	0.36	0.60	0.7	TE1060-ND	12.27	10.23	8.18	AC-1060
D	75.0	1000:1	23	1.015	0.10	0.35	0.50	0.6	TE1075-ND	12.33	10.28	8.22	AC-1075
E	100	1000:1	20	1.015	0.10	0.35	0.50	0.6	TE1100-ND	12.69	10.58	8.46	AC-1100
F	150	1000:1	10	1.010	0.10	0.32	0.55	0.6	TE1150-ND	16.80	14.00	11.20	AC-1150
F	200	1000:1	10	1.010	0.10	0.30	0.45	0.6	TE1200-ND	17.04	14.20	11.36	AC-1200

♦ RoHS Compliant

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