

# CORELESS AC CURRENT SENSORS



## FEATURES:

- Stable performance thanks to the following advantages of the Coreless Coil, or Rogowski Coil
  - No hysteresis error
  - No heat generation due to magnetic loss
  - No magnetic saturation
- Compact & light weight
- Complete isolation is provided between the current being sensed and the measuring circuit
- Capable of measuring high frequency and high amperage currents

### 300A - 1,000A Current Rating

Parameter (Ta = 25°C)	Symbol	CCT-0.3K10V010	CCT-0.5K10V021	CCT-001K10V21	CCT-001K10V022
Nominal Input Current (Peak)	If	300A	500A	1,000A	1,000A
Output Voltage	Vh	10V or 5V at If: Peak			
Zero Current Offset Voltage	Vo	Within ± 5mV at If = 0			
Frequency Bandwidth	-	20Hz to 100 KHz *			
Linearity of Output Voltage	ρ	Within ± 0.5% of output at If: Peak			
Supply Voltage	Vcc	± 15V DC			
Current Consumption	Icc	Approximately 10mA			
Response Time	ttr	1 μsec. Max. at di/dt = 1/5 If/μ sec			
Load Resistance	RL	10KΩ			
Thermal Characteristics of Output	-	Within ± 0.03%/°C			
Thermal Characteristics of Zero Current Offset (Zero Drift)	-	Within ± 0.3mV/°C at If = 0			
Dielectric Strength	-	2.5 KV AC with 50 or 60 Hz X 1 minute			
Operating Temperature	Ta	-10°C to +75°C			
Storage Temperature	Ts	-15°C to +80°C			
Maximum Diameter of Current Line	-	φ11mm	φ 20 mm	φ20 mm	φ22 mm
Package Type	-	D1	D2	D2	D3

\* Coreless coil current sensors with frequency bandwidth of 20Hz to 500KHz (TA: 0°C to +50°C ) are available upon request.

### 6KA - 100KA Current Rating

Parameter (Ta = 25°C)	Symbol	CCT-006K10V053	CCT-010K10V064	CCT-030K10V104	CCT-100K10V204
Nominal Input Current (Peak)	If	6KA	10KA	30KA	100KA
Output Voltage	Vh	10V or 5V at If: Peak			
Zero Current Offset Voltage	Vo	Within ± 15mV	Within ± 15mV	Within ± 20mV	Within ± 30mV
Frequency Bandwidth	-	20Hz to 500 KHz	20Hz to 500 KHz	20Hz to 200 KHz	20Hz to 100 KHz
Linearity of Output Voltage	ρ	Within ± 0.5% of output at If: Peak			
Supply Voltage	Vcc	± 15V DC			
Current Consumption	Icc	Approximately 10mA			
Response Time	ttr	1 μsec. Max. at di/dt = 1/5 If/μ sec			
Load Resistance	RL	10KΩ			
Thermal Characteristics of Output	-	Within ± 0.03%/°C			
Thermal Characteristics of Zero Current Offset (Zero Drift)	-	Within ± 0.3mV/°C at If = 0			
Dielectric Strength	-	2.5 KV AC with 50 or 60 Hz X 1 minute			
Operating Temperature	Ta	-10°C to +75°C			
Storage Temperature	Ts	-15°C to +80°C			
Maximum Diameter of Current Line	-	φ50 mm	φ 60 mm	φ100 mm	φ200 mm
Type of Coreless Coil	-	Through-hole Type*1	Clip-around type *2		

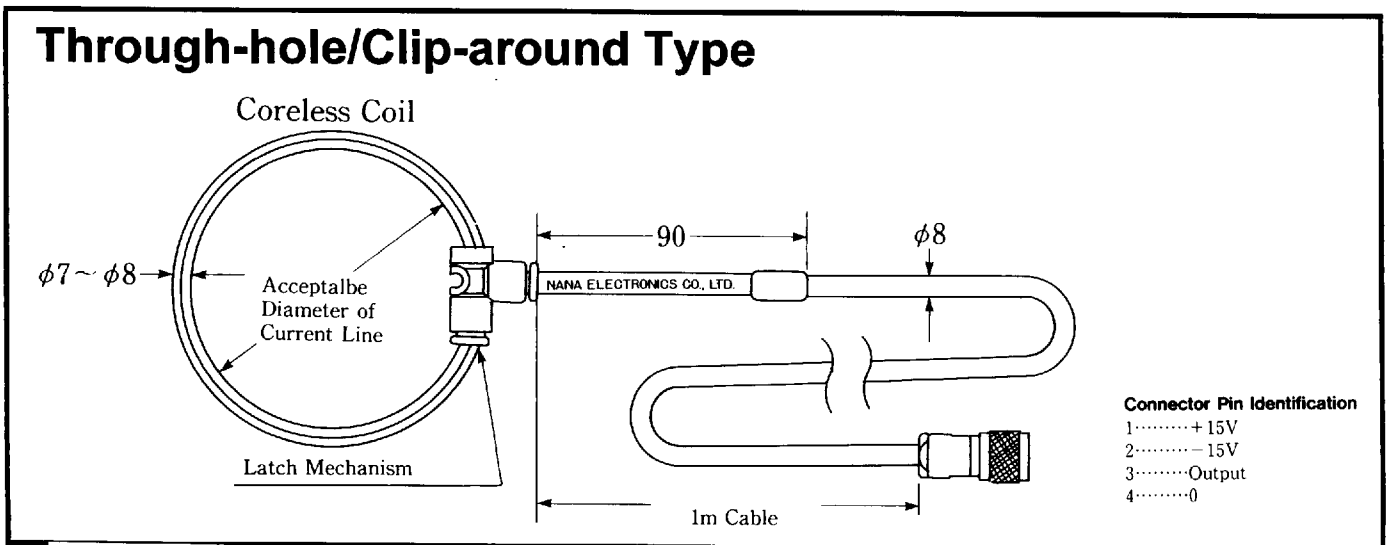
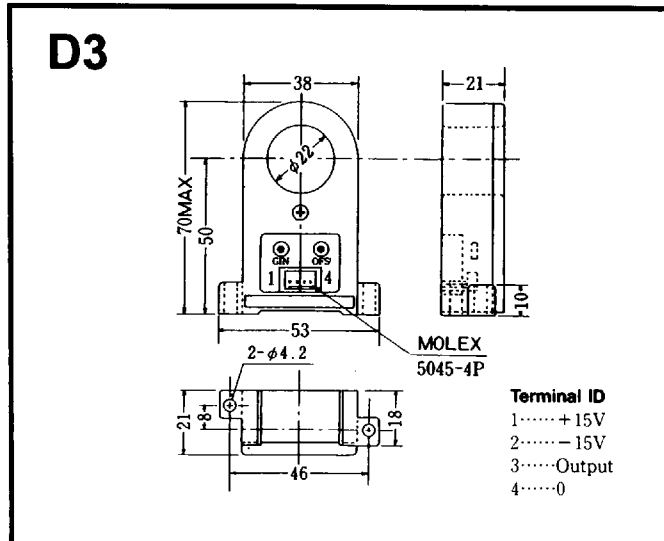
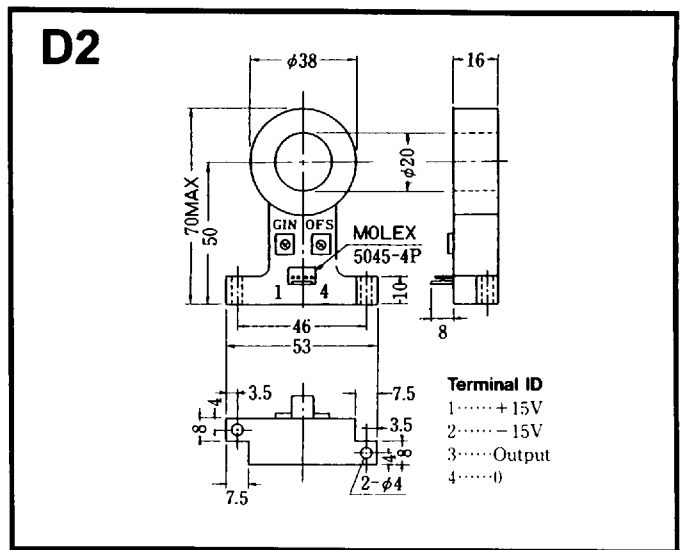
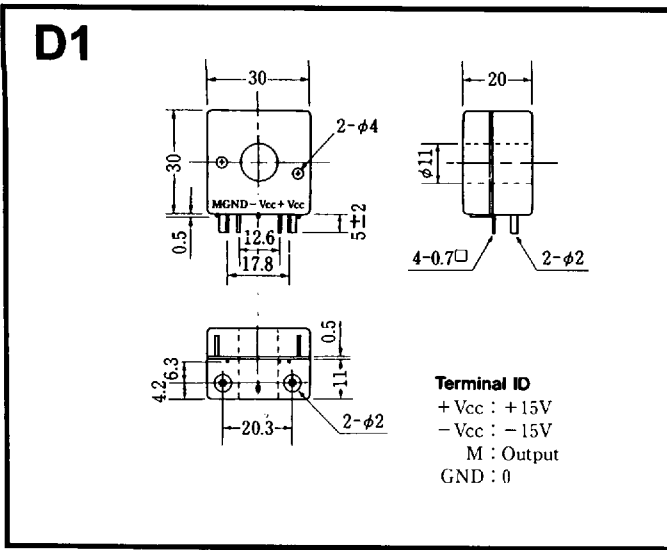
Note #1: The through-hole type is fixed (cannot be separated).

■ 2238792 0004042 165 ■

Note #2: The clip-around has a latch allowing it to be separated and reclosed.



# PACKAGE DIMENSIONS (mm)



2238792 0004043 0T1