

SEMARS DIGITAL

SEMARS

Smart Equipment Monitoring
and Resolution System

SENSORS DATA SHEET

SEMARS DIGITAL

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UAE : FDRK5907, Compass Building, Al Hamra Ind Zone-FZ, UAE

Oman : OFC 2/16, Focus Business Center, Way56, Muscat, Oman

Netherlands : 23-Aramstraat, 1336 HR, Almere, Netherlands

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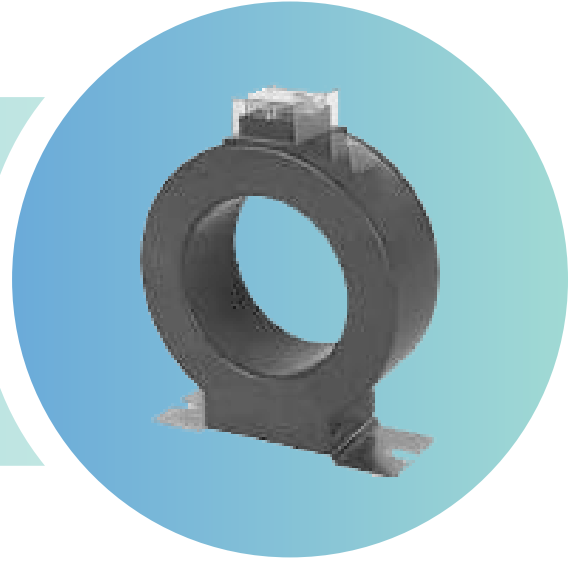
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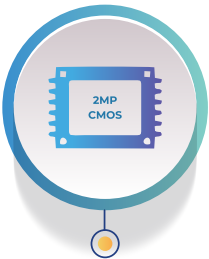
01

CT

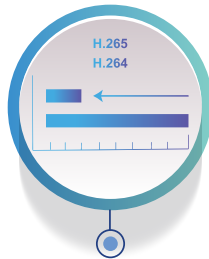
An instrument transformer designed to measure alternating current (AC) by producing a scaled-down secondary current that is proportional to the primary current flowing through a conductor. Provides electrical isolation between the high-voltage power circuit and the measuring or protection devices, enabling safe and accurate monitoring of large currents without directly connecting instruments to the high-power line. Commonly used in metering, protection systems, and control applications in power distribution and industrial setups.



Its features and applications are as follows:

1.1 Key Features:

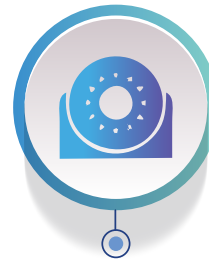
Converts high primary current to a safe, proportional low secondary current



Provides galvanic isolation between high-voltage circuits and measuring/protection devices



Supports various primary current ratings



Designed to work with specified load (burden) without affecting accuracy



Limits secondary current under fault conditions; includes short-circuit protection
Manageable via Semars Cloud

1.2 Applications:

- Energy Metering
- Protection Systems
- Monitoring & Control
- Industrial Backup Systems
- Motor Control Centers (MCCs)
- Switchgear and Panel Boards
- Power Quality Analysis

This type of sensor is particularly suitable for industrial or commercial environments requiring precise monitoring and integration with existing systems.

1.3 Specifications

SL No.	Specification	Value
1	Primary Current Rating:	50 A, 100 A, 200 A, up to several kA
2	Secondary Current Rating:	1 A or 5 A
3	Accuracy:	0.2, 0.5, 1.0
4	For protection:	5P10, 10P20 (IEC standards)
5	Burden (VA):	5 VA, 10 VA, 15 VA
6	Frequency:	50 Hz or 60 Hz
7	Max. Temperature on Bars	70°C
8	Short Circuit Rated Thermal Current	40 × IPN for 1 sec

1.4 Note:

Operating and storage conditions :

- Operating Temperature: -10°C to +55°
- Humidity: -20°C to +80°C
- Chemical Handling: Store reagents away from heat and temperature extremes; powders kept dry

Certifications :

- CE Certified
- RoHS Compliant
- IPV6 Packing
- ISO 9001 Manufacturing Standards