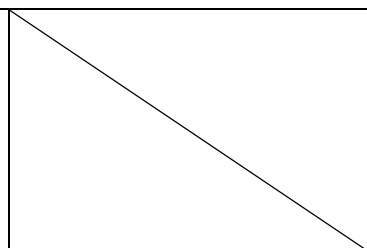


CUSTOMER

Residual current sensor FG-R05-3A datasheet

**KEMET
Corporation**

TOKIN Corporation
MSABG – Magnetics, Sensor and
Actuator Unit



1. Scope

This datasheet applies to the specification of Residual current sensor FG-R05-3A

2. Introduction

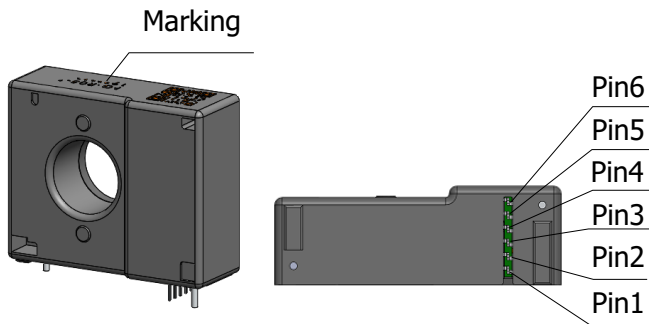
This sensor FG-R05-3A is a high-sensitivity DC/AC current sensor that can detect leakage current of DC and AC. If DC fault occurs, PIN 4 will change state from low level to high impedance. If AC fault occurs, PIN5 will change state from low level to high impedance.

This sensor has a test coil for testing the operation of the sensor, and by inputting a signal from the outside it is possible to pass a test current to the test coil. It also outputs a digital signal informing that leakage current of DC/AC has been detected.

Features

- For IC-CPD to the standard IEC 62752:2016
- UL2231(CCID20)
- Open-loop, Flux-gate type current sensor
- PCB mounting
- Digital output of fault detection

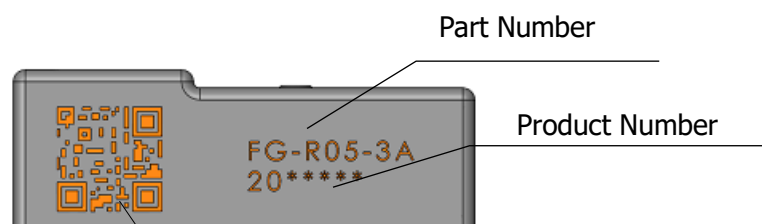
3. Pin assignment



Parameter	Specification Typ.	Units
Dimension	38 x 31 x 13	mm
Inner diameter	φ12.6	mm
Mass	18	g

Pin No.	Symbol	Pin type	Functions
1	VDD	Power	Power supply, 5V
2	GND	Power	Ground
3	AOUT	Analog out.	Analog output. This is for monitoring purposes and is not safety function! Offset voltage is 2.25 V(Typ.). Sensitivity is 40V/A(Typ.)
4	DC Alarm	Digital Out	Active high if DC current is in the range of 3 to 6mA. Pull up to VDD with 1k-ohm resistor.
5	AC Alarm	Digital Out	Active high if AC current is in the range of 15 to 20mA. Pull up to VDD with 1k-ohm resistor IEC62752 & UL2231(CCID20)
6	TEST	Input	Test input. Internal pull-down with 100kohm. When input positive pulse input(>120usec), test sequence is start.

4. Marking



2D Code : Purpose for Internal manufacturing control * out of spec.