



PERMANENT DOCUMENT

**ENEC 303
Annex BF**

**Annex BF
to Routine Test Requirements for manufacturers
(as per Article 9 of the Agreement)**

**Safety requirements for electrical equipment for
measurement, control, and laboratory use
Part 2-032: Particular requirements for hand-held and
hand-manipulated current sensors for electrical test and
measurement
EN 61010-2-032**

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Annex BF to PD ENEC 303

Safety requirements for electrical equipment for measurement, control, and laboratory use –

Part 2-032: Particular requirements for hand-held and hand-manipulated current sensors for electrical test and measurement - EN 61010-2-032

1 ROUTINE TESTS (100%)

PD ENEC 303 Annex BA General requirements EN61010-1 is applicable, except as follows:

F.1 General

Replace the first sentence with the following text:

The manufacturer shall perform the tests of F.2 to F.4 and F.101 on 100 % of equipment produced which has both HAZARDOUS LIVE parts and ACCESSIBLE conductive parts.

Addition:

F.101 JAWS of current sensors

For Type A, Type B, and Type C current sensors, a test voltage is applied between:

- a) exposed conductive parts of the JAWS or JAW ENDS, and
- b) ACCESSIBLE conductive parts within the HAND-HELD or hand-manipulated area and input and output circuits connected together.

Type D current sensors and other current sensors whose JAWS and JAW ENDS do not have ACCESSIBLE conductive parts do not need to be subjected to this test.

The test voltage may be a.c., d.c., or impulse, and is selected from Table F.101 for the appropriate MEASUREMENT CATEGORY. For the a.c. and d.c. tests, the test voltage is raised to its specified value within 5 s, and maintained for at least 2 s. Impulse tests are the 1,2/50 μ s test specified in IEC 61180 series, conducted for a minimum of three pulses of each polarity at 1 s minimum intervals. For current sensors with no RATED MEASUREMENT CATEGORY, the value of the test voltage is 1,5 times the RATED voltage to earth of the JAWS but not less than 350 V a.c. r.m.s. or 500 V d.c.

No flashover of CLEARANCES or breakdown of solid insulation shall occur during the test.

Table F.101 – Test voltages for ROUTINE TESTS of JAWS of current sensors

RATED a.c. r.m.s. or d.c. voltage to earth of the JAWS V	MEASUREMENT CATEGORY II			MEASUREMENT CATEGORY III			MEASUREMENT CATEGORY IV		
	2 s a.c. test V r.m.s.	2 s d.c. test V d.c.	1,2/50 μ s impulse V peak	2 s a.c. test V r.m.s.	2 s d.c. test V d.c.	1,2/50 μ s impulse V peak	2 s a.c. test V r.m.s.	2 s d.c. test V d.c.	1,2/50 μ s impulse V peak
≤ 150	840	1 200	1 200	1 400	2 000	2 000	2 200	3 100	3 100
$> 150 \leq 300$	1 400	2 000	2 000	2 200	3 100	3 100	3 300	4 700	4 700
$> 300 \leq 600$	2 200	3 100	3 100	3 300	4 700	4 700	4 300	6 000	6 000
$> 600 \leq 1 000$	3 300	4 700	4 700	4 300	6 000	6 000	5 300	7 500	7 500

2 PERIODIC TESTS

Test requirement of Part 1 is applicable:

PD ENEC 303 Annex BA Part 1: General requirements EN 61010-1