

FX-iWP Waterproof test for compliance with IP65

- This waterproof test was conducted by A&D R&D 1st Division

I. Required conditions for compliance with IP65

The first digit “6”

The first digit in IP65 represents a protection standard regarding solid materials. This “6” indicates that powder dust is not able to enter the unit or in the event powder dust does enter the unit, the dust will not impair the operation of the unit. When testing balances, as the waterproof test is more rigorous than the dust protection test, the dust protection test was omitted from our in-house test for the FX-iWP.

The second digit “5”

The second digit in IP65 represents a protection standard regarding water.

Procedure: Water is continuously sprayed on the sample unit for at least 3 minutes; with at least 12.5 liters per minute ($\pm 5\%$) of water sprayed on approximately 1 square meter of the sample unit for 1 minute. During the test, the nozzle is at a distance of 3 meters from the sample unit.

Determination:

- 1) There was no penetration of water to impair the normal operation of the sample device.
- 2) Water did not come into contact with any conductors not insulated against humidity.
- 3) Water did not penetrate the cables nor did water settle in the cable terminals.

II. Water jet test

Date: August 27, 2007

Location: A&D Technical Center, Saitama,
Japan

Purpose

of Test: To test the second digit mentioned
in section I above

1) Test conditions

- a) Nozzle with an internal diameter of 6.3 mm
(Approximately 13 liters/min)
Water jet time: 1 minute/direction

Nozzle used for test

Total: 5 minutes

- b) Parts of water jet: Front, sides, rear, top



Testing scene



Water jet directed to
the front of the test sample



III. No water penetrated the test sample. No problems.