

# IP RATING GUIDE

## INGRESS PROTECTION

LEVEL	EFFECTIVE AGAINST	DESCRIPTION	LEVEL	PROTECTIVE AGAINST	EFFECTIVE AGAINST
<b>X</b>	—	X means there is no data available to specify a protection rating with regard to one of the criteria.	<b>0</b>	None	—
<b>0</b>	—	No protection against contact and ingress of objects.	<b>1</b>	Dripping water	Dripping water (vertically falling drops) shall have no harmful effect on the specimen when mounted in its normal operating position onto a turntable and rotated at 1 RPM.
<b>1</b>	>50mm	Any large surface of the body, such as the back of a hand, but no protection against deliberate contact with a body part.	<b>2</b>	Dripping water when tilted at 15°	Vertically dripping water shall have no harmful effect when the enclosure is tilted at an angle of 15° from its normal position. A total of 4 positions are tested within 2 axes.
<b>2</b>	>12.5mm	Fingers or similar objects.	<b>3</b>	Spraying water	Water falling as a spray at any angle up to 60° from the vertical shall have no harmful effect (utilising an oscillating fixture, or a spray nozzle with a counterbalanced shield).
<b>3</b>	>2.5mm	Tools, thick wires, etc.	<b>4</b>	Splashing of water	Water splashing against the enclosure from any direction shall have no harmful effect (utilising an oscillating fixture or a spray nozzle with no shield).
<b>4</b>	>1mm	Most wires, slender screws, large ants etc.	<b>5</b>	Water Jets	Water projected by a nozzle (6.3mm at 12.5 litres/minute) against enclosure from any direction shall have no harmful effects.
<b>5</b>	Dust protected	Ingress of dust is not entirely prevented, but it must not enter in sufficient quantity to interfere with the satisfactory operation of the equipment.	<b>6</b>	Powerful water Jets	Water projected in powerful jets (12.5mm nozzle at 100 litres/minute) against the enclosure from any direction shall have no harmful effects.
<b>6</b>	Dust tight	No ingress of dust; complete protection against contact (dust tight). A vacuum must be applied. Test duration of up to 8 hours based on air flow.	<b>6k</b>	Powerful water Jets with increased pressure	Water projected in powerful jets (6.3mm nozzle at 75 litres/minute) against the enclosure from any direction, under elevated pressure, shall have no harmful effects.

### EXAMPLE:



<b>7</b>	Immersion, 1m depth	Ingress of water in harmful quantity shall not be possible when the enclosure is immersed in water of 1m depth for 30 minutes.
<b>8</b>	Immersion, 1m or more depth	The equipment is suitable for continuous immersion in water under conditions specified by the manufacturer with depth & duration greater than requirements for IPX7.
<b>9</b>	Powerful high	Protected against close-range high