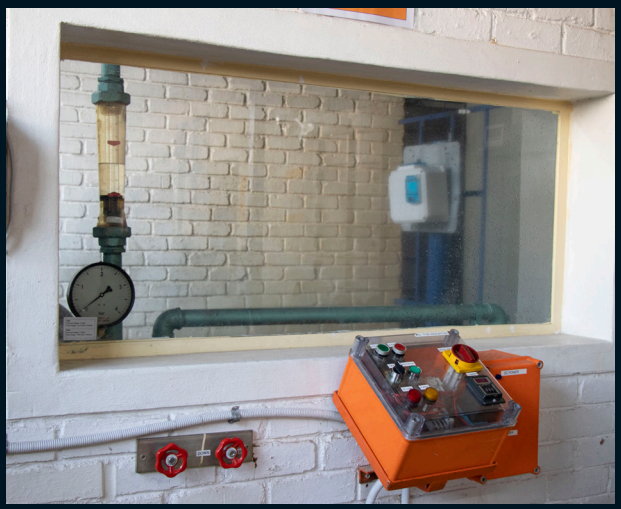
Standard Enclosure Testing (IEC62208)

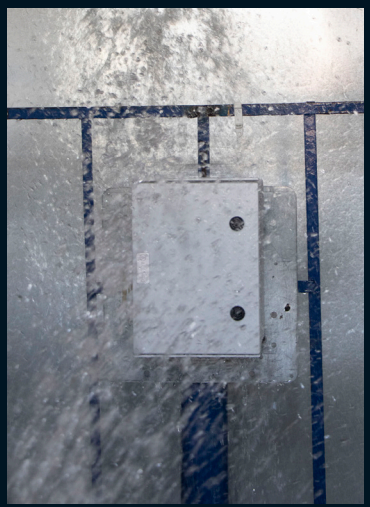
- Static loads: Test 1.25 x maximum permissible load as declared by manufacturer for 1 hour.
- Lifting: Applicable to enclosures with lifting accessories.
- Axial loads of metal inserts: When threaded metal inserts are provided to retain the mounting plate/switch control gear supported.
- IK code: Test according to standard IEC 62262 with pendulum impact tester. After testing, the enclosure keeps its IP rating.
- IP rating: Test according to standard IEC 60529. Degree of protection against access to hazardous parts and the penetration of solid bodies and against the penetration of water.
- Thermal stability at a temperature of 70°C for duration of 168 hours.
- Resistance to abnormal heat and to fire: Glow wire test according to IEC 60695-2-10 and IEC 60695-2-11 (1).
- Dielectric strength: 5000V (1)
- Protection circuit continuity (2): Resistance not to exceed 0.1 ohm
- Weather resistance: Duration 500h (cycle: rain 5 minutes + UV lamp 25 minutes)
- The degree of protection provided by the enclosures are defined by standards IEC 60529 (IP) and IEC 62262 (IK)
- Degrees of protection are indicated by the letters IP followed by two characteristic numerals. The numerals show the degree of protection offered by the enclosure against access to dangerous parts, the penetration of solid bodies (1st numeral) and against the penetration of liquids (2nd numeral).
- The protection against external mechanical impact is indicated by the letters IK followed by a characteristic group numeral.

IP Rating for Enclosures IEC 60529

Since enclosures require periodic maintenance conducted by specialists, additional regulations establish the requirements that the manufacturer of these products should have to ensure technical operations are carried out safely. IEC 60529 is an international standard that was created for the purpose of clarifying the capability of an enclosure to protect the contents from solid and liquid bodies.

Allbro is one of a handful of manufacturers in the world that test several production and not just for initial design verification / certification .





IP Level Testing
*Photos taken in Allbro's Testing Lab

IP Ratings for Enclosures (IEC60529)
IK Ratings for Enclosures (IEC62262)

ALLBRO

IP

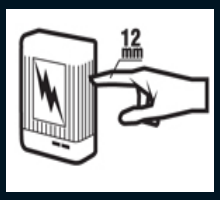
Protection against solid bodies

0

No Protection

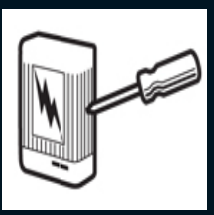
1

Protected against solid bodies larger than 50 mm (e.g. a hand)



2

Protected against solid bodies larger than 12 mm (e.g. a finger)



3

Protected against solid bodies larger than 2.5 mm (tools, wires)

4

Protected against solid bodies larger than 1 mm (fine tools, small wires)

5

Protected against dust(no harmful deposits)

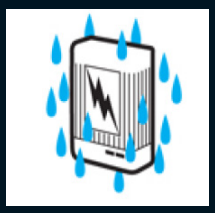
6

Totally dust tight

Protection against liquids

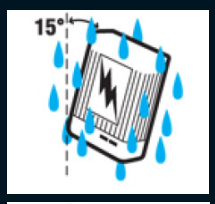
0

No Protection



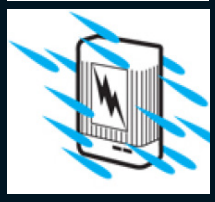
1

Protected against vertically falling water droplets (condensation)



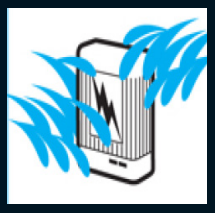
2

Protected against water droplets deflected at up to 15° from vertical



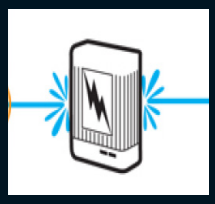
3

Protected against rainwater at up to 60° from vertical



4

Protection against water spray from all directions

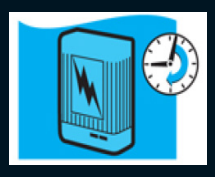


5

Protected against low - pressure water jets from all directions

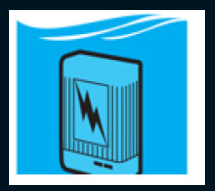
6

Protected against powerful water jets from all directions



7

Protected against the effects of immersion

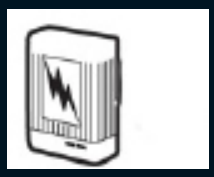


8

Protected against prolonged effects of immersion under pressure

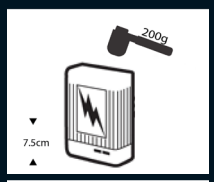
IK

Protection against force



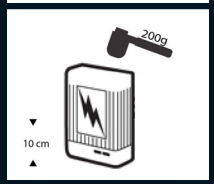
0

No Protection



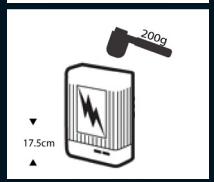
01

Impact energy 0.150 Joules



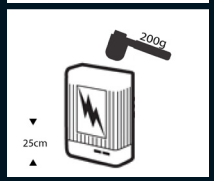
02

Impact energy 0.200 Joules



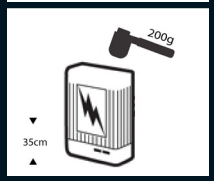
03

Impact energy 0.350 Joules



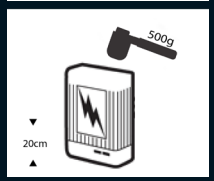
04

Impact energy 0.500 Joules



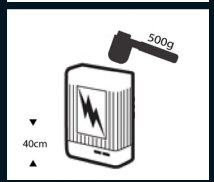
05

Impact energy 0.700 Joules



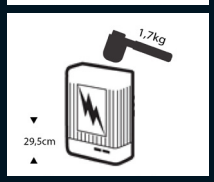
06

Impact energy 1.00 Joules



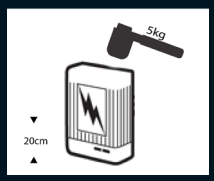
07

Impact energy 2.00 Joules



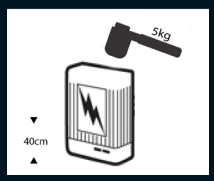
08

Impact energy 5.00 Joules



09

Impact energy 10.00 Joules



10

Impact energy 20.00 Joules