

Industry Standards Downloadable Guides

IP Ratings Explained

Allvalves Online Technical Support



ALLVALVES
O N L I N E

Technical Support Document

www.allvalves.co.uk



IP Ratings Explained

www.allvalves.co.uk

IEC:60529 describes a system for classifying the degrees of protection provided by the enclosures of electrical equipment. The system uses a 2 number code, the combination of which indicates the degree of protection. See below guide for more information.

IP (INGRESS PROTECTION) RATING GUIDE			
SOLIDS		WATER	
LEVEL OF INGRESS PROTECTION		LEVEL OF INGRESS PROTECTION	
1	Protected against a solid object greater than 50mm (such as a hand) (50N of force)	1	Protected against vertically falling drops of water. Limited ingress permitted. (Turn table at 1RPM required per spec)
2	Protected against a solid object greater than 12.5mm (such as a finger) (10N of force)	2	Protected against vertically falling drops of water with enclosure tilted up to 15deg. From vertical. Limited ingress permitted.
3	Protected against a solid objects greater than 2.5mm (such as a screwdriver) (3N of force)	3	Protected against sprays of water up to 60deg. From the vertical. Limited ingress permitted for three minutes. (Calculation of surface area required)
4	Protected against a solid object greater than 1mm (such as a wire) (1N of force)	4	Protected against water splashed from all directions. Limited ingress permitted.
5	Dust protected. Limited ingress of dust permitted. Will not interfere with operation of the equipment. Two to Eight Hours (Category 2 only)	5	Protected against jets of water. Limited ingress permitted.
6	Dust tight. No ingress of dust. Two to Eight Hours (Category 2 only) (Need pressure regulating system)	6	Water from heavy seas of water projected in powerful jets shall not enter the enclosure in harmful quantities.
		7	Protection against the effects of immersion in water between 15cm and 1m below the surface from 30 minutes.
		8	Protection against the effects of immersion in water under pressure for long periods.
		9	Protection against the effects of high pressure temperature water jet.