

IP and IK Classifications

Ingress protection class of enclosures is given in form of IP classification, a two digit coding which is shown below.

We have tested the enclosures according to IEC 520 or the newer EN 60529 4:1992. The latter requires the second digit to be tested from class 6 upwards separately to each level of class, thus the double marking IP 66 / IP 67 indicates that the actual tests have been made for both levels.

The new European standard for enclosures, EN 60439-6 Pro is on its way and will include the new IK impact test, too. This test is described in EN 60439/50102.

FIRST NUMBER		SECOND NUMBER		IK CODE	
Protection against solid objects		Protection against liquids		Protection against mechanical impacts	
IP	TEST	IP	TEST	IK	TEST
0	No protection	0	No protection	00	No protection
1	Protected against solid objects up to 50 mm e.g. accidental touch by hands.	1	Protected against vertically falling drops of water.	01-05	impact < 1 joule
2	Protected against solid objects up to 12 mm e.g. fingers.	2	Protected against direct sprays of water up to 15° from the vertical.	06	impact 1 joule
3	Protected against solid objects over 2,5 mm (tools + small wires).	3	Protected against sprays to 60° from the vertical.	07	impact 2 joule
4	Protected against solid objects over 1 mm (tools + small wires).	4	Protected against water sprayed from all directions – limited ingress permitted.	08	impact 5 joule
5	Protected against dust – limited ingress permitted (no harmful deposit.)	5	Protected against low pressure jets of water from all directions - limited ingress permitted.	09	impact 10 joule
6	Totally protected against dust..	6	Protected against strong jets of water e.g. for use on ship-decks - limited ingress permitted.	10	impact 20 joule
		7	Protected against the affects of immersion between 15 cm and 1 m.		
		8	Protected against long periods of immersion under pressure.		