

IP Rate & Cable Class

The degree of protection expressed by an IP number.

IP20 devices are suitable for integration in indoor luminaires without special requirements.

IP65 devices are for instance, used for outdoor lighting applications.

PROTECTION CLASS I AND PROTECTION CLASS II



CLASS I

All electrically conductive casing parts must be protected by connection to electrical earth for Protection Class I (see symbol) devices. Devices designed for independent operation must feature a mechanical cable grip for the power supply cable.



CLASS II

Devices of Protection Class II (see symbol) feature double or reinforced insulation between the mains power circuit and the output side or the metal casing. If a cable with a protective earth conductor is used, this must not be connected to the casing.

IP x x

SOLID PROTECTION		LIQUID PROTECTION	
	0 No Protection		0 No Protection
	1 Protected against a solid object greater than 50mm, such as a hand.		1 Protected against water drops.
	2 Protected against a solid object greater than 12.5mm, such as a finger.		2 Protected against water spray at a 15 degree angle.
	3 Protected against a solid object greater than 2.5mm, such as a wire.		3 Protected against water spray at a 60 degree angle.
	4 Protected against a solid object greater than 1.0mm, such as a thin strap.		4 Protected against water splashing from any angle.
	5 Dust Protected. Prevents ingress of dust sufficient to cause harm.		5 Protected against water jets from any angle.
	6 Dust tight. No ingress of dust.		6 Protected against powerful water jets and heavy seas.
			7 Protected against the effects of temporary submersion in water. (30 minutes at 3 feet)
			8 Protected against the effects of permanent submersion in water. (Up to 15 feet)