

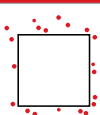
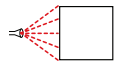
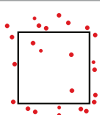
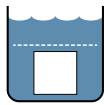

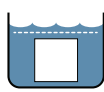

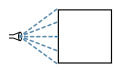

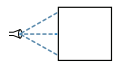

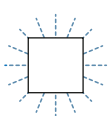
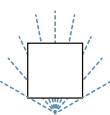
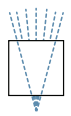
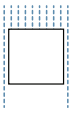
# Lighting Protection

## Resource card

Lighting IP protection ratings

# IPXX

Protection from Solid objects/dust and moisture

IP_X		Solid Objects and Dust Protection		IPX_	Moisture Protection	
<b>6</b>	Dust Tight No dust entry			<b>9</b>	High Pressure & Temperature Jet	
<b>5</b>	Dust Proof			<b>8</b>	Pressure Watertight >1m submersion tested at 1.3x Rating	
<b>4</b>	Solid Objects >1mm			<b>7</b>	Watertight 1m submersion	
<b>3</b>	Solid Objects >2.5mm			<b>6</b>	Powerful Jet Proof 100kN/m²	
<b>2</b>	Accessibility Probe >12mm			<b>5</b>	Jet Proof 30kN/m²	
<b>1</b>	Solid Objects >50mm			<b>4</b>	Splash Proof Water spray 360°	
<b>0</b>	Not Protected/Evaluated			<b>3</b>	Rain Proof Water Spray 60° from vertical	
				<b>2</b>	Drip Proof when tilted 15° from vertical	
				<b>1</b>	Drip Proof Vertical Drops	
				<b>0</b>	Not Protected/Evaluated	

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# Lighting IK Protection Ratings “IKXX”

Degrees of protection against external mechanical impacts










IK Code	IK00	IK01	IK02	IK03	IK04	IK05
Impact Energy, J	Not protected	0,14	0,2	0,35	0,5	0,7
IK Code	IK06	IK07	IK08	IK09	IK10	
Impact Energy, J	1	2	5	10	20	

IEC	COLOR CODING	NORTH AMERICA
BROWN	LINE	BLACK
BLUE	NEUTRAL	WHITE
GREEN&YELLOW	EARTH / GROUND 	GREEN

IEC	BRANCH WIRE	NORTH AMERICA
1.5mm <sup>2</sup> -2.5mm <sup>2</sup>	TYPICAL SIZE	14-12 AWG

IEC	CLASSIFICATIONS	NORTH AMERICA
CLASS I	EARTH / GROUND	GROUNDING
CLASS II 	DOUBLE INSULATION	
CLASS III 	LOW VOLTAGE SUPPLY	Class 2 Powered

## COMMON IEC SYMBOLS AND RATINGS FOR LIGHTING

$t_a$	Ambient Temperature Rating
$t_c$	Maximum Case Temperature Rating
$t_w$	Maximum Winding Temperature Rating
$U_{out}$	Maximum Working Voltage (Used for Spacings and Dielectrics)
	Class II – Double Insulated (Not Earthed/Grounded)
	Class III – SELV powered (Not Earthed/Grounded)
	Lamp Control Gear with SELV Output
	Independent Lamp Control Gear
	Built-In LED Module
	Do Not Stare at Light Source (Required for certain Photobiological Classifications)
	Caution – Risk of Shock
	Temperature Declared Thermally Protected Lamp Control Gear (End product testing simplified if less than 130)
	Recessed – Not intended for Insulation Contact

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