Cine City - Vissingen, Netherlands

(※) isotera
POWERED

ISOTERA – CONTACTLESS LED DRIVER SYSTEM

LIGHTING DESIGN AWARDS 2015
HIGHLY COMMENDED

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Installing Lumiance professional lighting products just got even easier. Havells-Sylvania introduces Isotera, the revolutionary contactless power system for LED lighting, for faster, simpler, safer lighting schemes that you change again and again that saves money into the bargain.

Isotera controls luminaires over a 'bus' system without connectors and drivers. It's contactless which means no hard-wiring, no need to cut or pierce cable and no need for tools. You just clip a coupler anywhere you want on the orange bus cable. It literally takes seconds – a fraction of the time compared with conventional wiring. With coolrunning remote power, a single run of high-frequency cable and no polarity to worry about, planning, installation and checking are all easier. You might think all this flexibility would come at a premium but, in fact, you use fewer components, so you can save time, money and materials.

Faster installation
• Installation without tools
• No bus polarity – connect without errors
• Contactless – coupler connection does not cut cable or pierce insulation
• Easy verification of the installation – fewer potential points for wiring errors to creep in (e.g. Drivers or junction points)
• Fastest way of daisy-chaining luminaires
• Remote power supply
• Single uninterrupted cable
• Does not require computer-based commissioning Flexible

Flexible
• Can adapt with changes to the building by plug and play
• Position and reposition your LED luminaires at any point on the cable
• Any combination of LED luminaires can be clipped to orange twisted bus
• Orange twisted cable is easily extended
• Power and control can be planned separately: control groups can overlap multiple power hubs

Safe
• Power bus wiring is high frequency – 50kHz instead of 50Hz
• No exposed wiring
• No need for hard wiring
• Low voltage

Competitive
• Reduced installation time
• Simple to install / minimum skills required
• Easier project planning due to simplicity and flexibility of system
• Lower overall material costs – fewer components in the system compared with standard or modular wiring

Reliable
• Eliminate multiple points of failure by removing drivers, and replace with a robust power hub
• Couplers are more efficient than LED drivers: less heat and longer life
• Couplers do not contain large electrolytic capacitors, eliminating the driver's "Achilles heel", and giving longer life

Lumiance and Isotera together offer savings in time and money. With conventional lighting solutions, moving or adjusting LED luminaires can take both. But Isotera's modular design and fast, simple method of fixing or changing components means fewer mistakes and less waste. The secret is contactless power, which speeds up installation and enables you to make changes at no extra cost. For example, in no time at all you can add in an energy saving sensor for presence/absence or daylight detection with no extra wiring.

Isotera connected in series
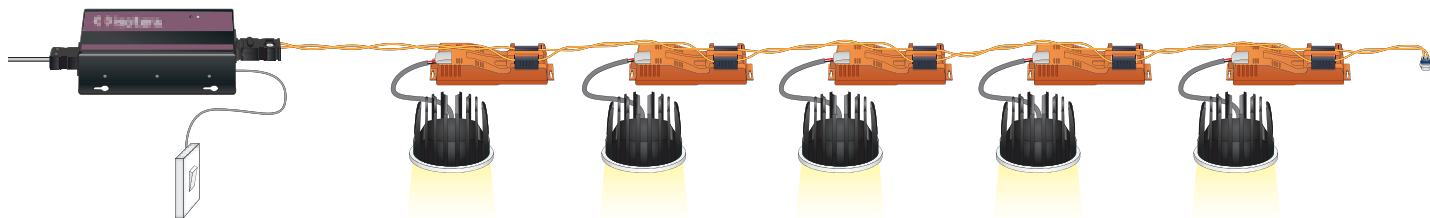
Just compare the time it takes to cut, strip, twist, insert, screw and secure the wires for a fitting in the conventional way with simply snapping in a new luminaire. A downlight can usually take up to 10 minutes wire up but with Isotera it's all done in seconds. That doesn't just save labour: because you use less cable and fewer connectors (you don't even need T-connectors), you soon start to make savings on materials too.

Lumiance's high reputation for contemporary design, functionality and safety already make it the contractor's first choice. Now, Isotera offers even greater flexibility and savings to make specifying easier than ever.

Isotera connected in parallel
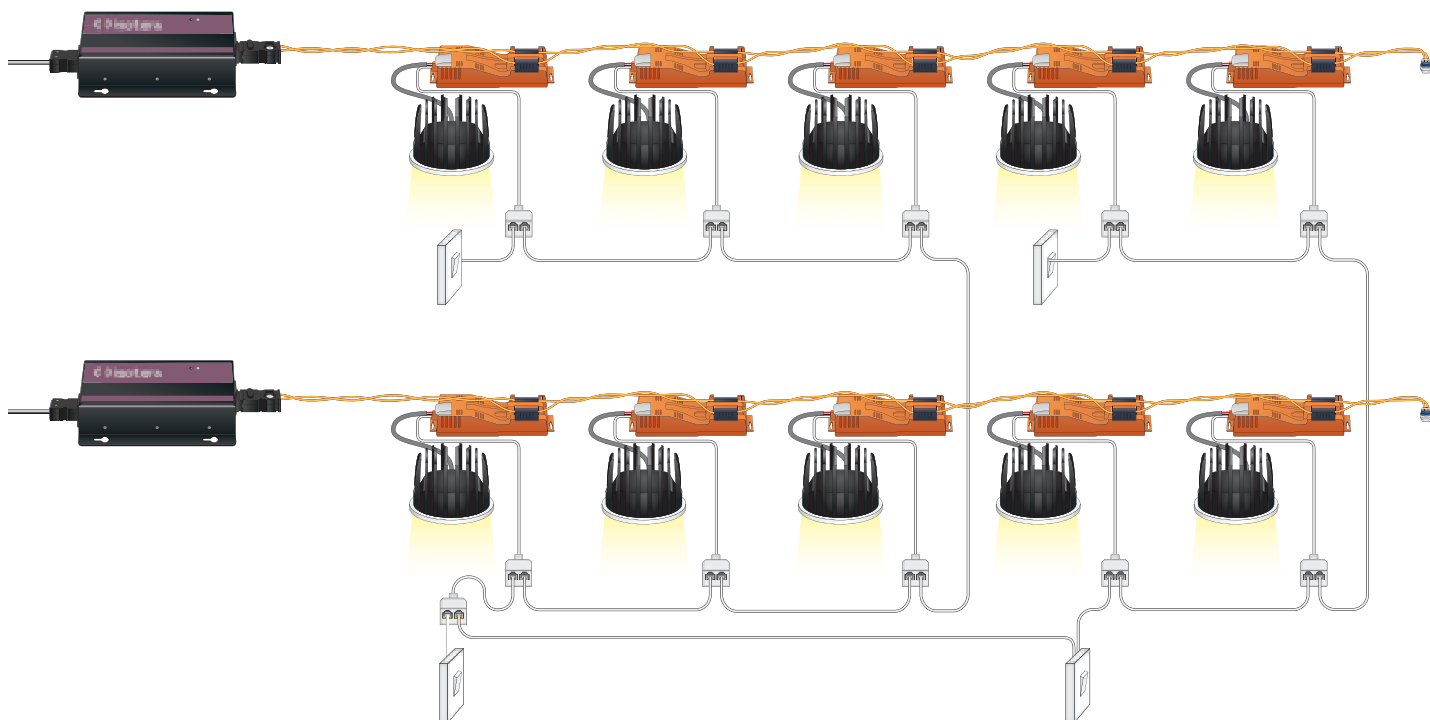
How to specify Isotera

Chose your LED luminaire!
If LED luminaire with Isotera are not listed, contact Havells-Sylvania, and we can supply a LED luminaire with the right size of coupler

Measure the total length of orange bus cable required

Add up the total Wattage of all luminaires, and allow 4W/100m for cable
If this total is <200W or <500W then use a power hub to match.
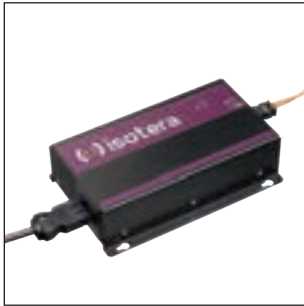If it's >500W then split the LED luminaire between multiple power hubs, each supplying their own orange bus

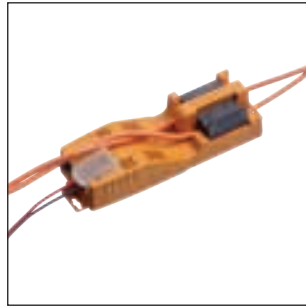**Do any luminaires need emergency battery power?**
If so add an emergency module for each
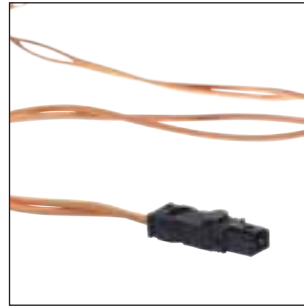
Do you need controls?
Add sensors, switch-interface modules, cables to join them and multi-way connectors
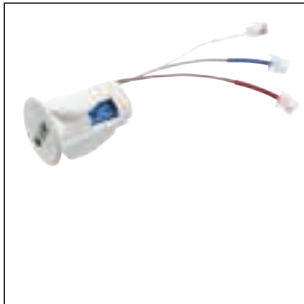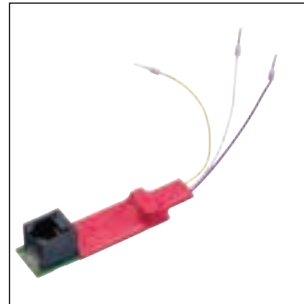
Power hub

Coupler

iBus

Emergency 3 hour module

Sensor

RJ-11 cables and connector

Switch interface

The key elements of an Isotera installation is a LED luminaire connected to a coupler, rather than a driver. The coupler clips on to an orange cable and power is provided centrally by the power hub. Additionally, control is a simple 'plug and play' add-on using control cables.

Power hub
An ultra-efficient bulk power converter which converts 230V AC mains into a low voltage high frequency AC (HFAC) which is then fed to the orange twisted pair bus..

Coupler
For delivering constant-current power to the LED luminaires. 15W, 30W and 50W versions available with a range of output currents.

iBus
A double-insulated twisted pair cable, connected at one end to the power hub and the other end shorted by an Insulation Displacement Connector (IDC) allowing the connection of mutiple LED luminaires of various drive currents. The orange cable is double-insulated, LSOH, and supplied pre-fitted with the connector for rapid connection to the power hub.

Emergency 3 hour module
Battery back-up, charging and selftest according to EN 62034.

Sensor
For occupancy / absence and daylight-linked dimming.

RJ-11 cables and connector
Quick and simple connection of controls to couplers.

Switch interface
Connect a retractive switch for on / off / dimming control. Multiple switchinterface modules may be connected for twoway switching.
Note: available as "master" and "slave" versions.

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![isotera POWERED logo]

Any constant current LED products can be powered by Isotera, for example, Concord or Sylvania Luminaires. Please visit www.havells-sylvania.com to see our complete range of products.

Lumiance LED downlights, supplied fitted with isotera couplers ready to use

Insaver LED

Control Gear:	Electronic
Dimmable:	Analogue 1-10V or DALI dimmable
Emergency:	Remote 3 hour maintained
Reflector:	Scratch proof facetted reflector
Housing:	Choice of white or silver bezel

• Low recess depth (115mm)
• LED technology
• Quick and easy to install
• Extensive choice of accessories
• Optimised photometric performance
• Ideal for applications such as lobbies, residential areas, hallways, open-space offices, meetings rooms and any location that requires long service hours and high switching cycles

Insaver HO Topper LED / Syl-Lighter LED

Control Gear:	Electronic
Housing:	White

• 12W to 25W LED downlights
• Low recess depth (<90mm)
• Quick and easy to install
• Ideal for applications such as general public circulation areas, corridors and public toilets

Instar LED

Control Gear:	Electronic
Housing:	Choice of white, chrome or brushed iron

• Easy to install: Plug and play connecting system with strain relief
• Ideal for application such as Offices, Hospitality and high-end Residential

Motto Trend LED

Control Gear:	Electronic
Adjustment Angles:	Tiltable in 2 directions, 2x25° tilt
Housing:	Choice of matt white or brushed aluminium

• Single 7W LED, results in a small footprint to aid installation
• 'Plug & Play' connection system
• Choice of 2 beam angles: 25° or 36°
• Ideal for Retail, Hospitality and high-end Residential lighting

Signo 155 LED & 205 LED

|	
Control Gear:	Electronic
Adjustment Angles:	60° tilt and 355° rotation
Reflector:	New optimised reflector for high LOR
Housing:	Choice of matt white or brushed aluminium
Finish:	Powder coated white, silver and black

• Recessed and adjustable
• Unique friction system, for optimal adjustment
• Ideal for Retail, Showrooms applications, perfect for fashion and food stores

Simple 6 step installation process.
You can also view our comprehensive installation video scanning the QR code or visiting:
www.havells-sylvania.com/en_GB/downloads/videos

Easy Installation 1
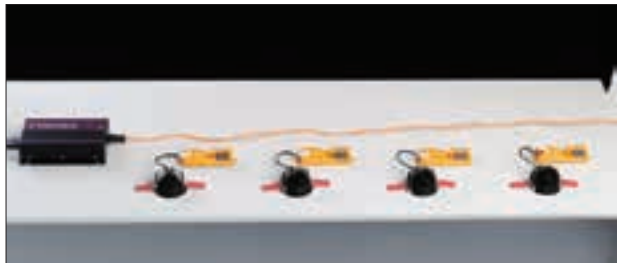
Connect the orange iBus cable to the power hub and press the reset button. The LED indicator on the power hub should turn green.

Push the slider forward and insert the cable securely into the back part of the coupler. Note: Light will turn on between step 2 and 3.

Repeat steps 2 to 4 for each luminaire that you are coupling to the cable.

Connect the couplers to the cable. Push the slider backwards and securely insert the cable in the front part the coupler.
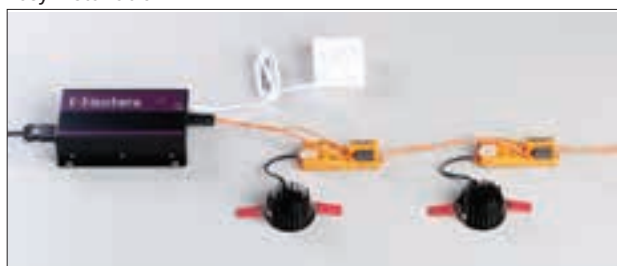

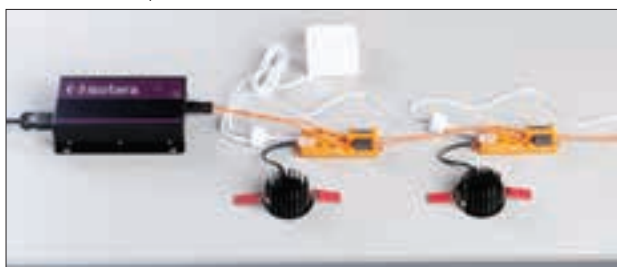Return the slider to its original position. It should now cover both parts of the cable fully and securely.

Enjoy your completed lighting installation.

Easy Installation 2

Master command – run from the power hub
Simply link the light switch, connected to a Switch-Interface Module, via its RJ11 cable to the power hub. Turn on and off with the switch.

Master command – Run from a single coupler
Simply link the light switch, fitted with a Switch-Interface Module, via its RJ11 cable to a coupler. Turn on and off by pressing the switch briefly. Dim up and down by holding down the switch.

Master command – Connect to all couplers in a group
Simply link the light switch via its RJ11 cable to a coupler. Then extend a linking RJ11 to the next coupler using a 2-way adapter. Repeat as many times as needed. Turn on and off by pressing the switch briefly. Dim up and down by holding down the switch.
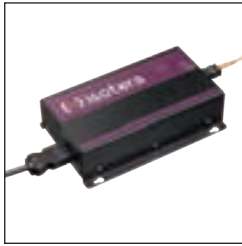
Power hub
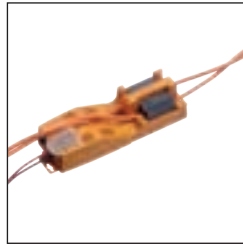
Coupler

Cable

MultiSensor

Emergency 3 hour module

Switch interface

RJ-11

Control signal splitter connector

Power hub

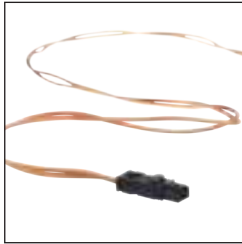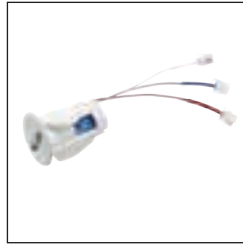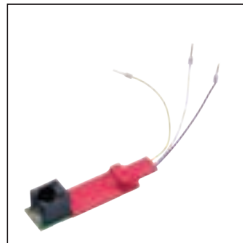| Code	Description	Watt (W)
3099171	Isotera 200W Power hub	200
3099172	Isotera 500W Power hub	500

Coupler

Code	Description	Watt (W)	Output Current (mA)
3099153	Isotera Coupler IS-H-IC-15-1050-01	Upto 15W	1050
3099154	Isotera Coupler IS-H-IC-15-200-01	Upto 15W	200
3099155	Isotera Coupler IS-H-IC-15-350-01	Upto 15W	350
3099156	Isotera Coupler IS-H-IC-15-700-01	Upto 15W	700
3099157	Isotera Coupler IS-H-IC-30-1050-01	15W to 30W	1050
3099158	Isotera Coupler IS-H-IC-30-350-01	15W to 30W	350
3099159	Isotera Coupler IS-H-IC-30-500-01	15W to 30W	500
3099160	Isotera Coupler IS-H-IC-30-700-01	15W to 30W	700
3099161	Isotera Coupler IS-H-IC-50-1000-01	25W to 50W	1000
3099162	Isotera Coupler IS-H-IC-50-1200-01	25W to 50W	1200
3099163	Isotera Coupler IS-H-IC-50-700-01	25W to 50W	700
3099164	Isotera Coupler IS-H-IC-50-800-01	25W to 50W	800
3099165	Isotera Coupler IS-H-IC-50-900-01	25W to 50W	900

Cable

Code	Description
3099173	Isotera Cable 10m
3099174	Isotera Cable 20m
3099175	Isotera Cable 50m

MultiSensor

Code	Description
3099176	Isotera MultiSensor

Emergency 3 hour module

Code	Description	Watt (W)
3099177	Isotera Emergency 3 hour module	2W/2.5W/3W selectable

Switch interface

Code	Description
3099178	Isotera Switch Interface Module Master (Blue)
3099179	Isotera Switch Interface Module Slave (Red)

RJ-11

Code	Description
3099182	Isotera RJ-11 lead 3m
3099183	Isotera RJ-11 lead 5m

Control signal splitter connector

Code	Description
3099180	Isotera control signal splitter connector 2W
3099181	Isotera control signal splitter connector 3W
3099184	Isotera socket to socket signal connector

Insaver LED

Code	Description	Cut out size (mm)	Ip-Rating
Insaver LED 75			
3034030	INSAVER 75 LED RD WW WH IS	75	IP65
3034031	INSAVER 75 LED RD NW WH IS	75	IP65
3034032	INSAVER 75 LED SQ WW WH IS	75	IP65
3034033	INSAVER 75 LED SQ NW WH IS	75	IP65
3034034	INSAVER 75 LED SQ WW SI IS	75	IP65
3034035	INSAVER 75 LED SQ NW SI IS	75	IP65
Insaver LED 150			
3034036	INSAVER 150 LED 19W WW IS	150	IP44
3034037	INSAVER 150 LED 19W NW IS	150	IP44
3034046	INSAVER 150 LED 19W WW IS	150	IP44
3034047	INSAVER 150 LED 19W NW IS	150	IP44
3034051	INSAVER 150 LED 19W PL3 WW IS	150	IP44
3034052	INSAVER 150 LED 19W PL3 WW IS	150	IP44
3034038	INSAVER 150 LED 30W WW IS	150	IP44
3034039	INSAVER 150 LED 30W NW IS	150	IP44
3034040	INSAVER 150 LED 30W WW IS	150	IP44
3034041	INSAVER 150 LED 30W NW IS	150	IP44
3034048	INSAVER 150 LED 30W PL3WW IS	150	IP44
3034053	INSAVER 150 LED 30W PL3 WW IS	150	IP44
Insaver LED 175			
3034042	INSAVER 175 LED 38W WW IS	175	IP44
3034043	INSAVER 175 LED 38W NW IS	175	IP44
3034044	INSAVER 175 LED 38W WW IS	175	IP44
3034045	INSAVER 175 LED 38W NW IS	175	IP44
3034049	INSAVER 175LED 38W PL3 WW IS	175	IP44
3034050	INSAVER 175 LED 38W PL3WW IS	175	IP44

Legend: NW = Neutral white; WW = Warm White; WH = White; IS = Isotera; PL3 = GST 18 Connector

Syl-Lighter LED / Insaver HO Topper LED

Code	Description	Cut out size (mm)	Ip-Rating
Insaver 150 HO Topper LED			
3034067	INSAVER 150 HO TOPPR LED 12W WW IS	150	IP44
3034068	INSAVER 150 HO TOPPR LED 12W NW IS	150	IP44
Insaver 175 HO Topper LED			
3034069	INSAVER 175 HO TOPPR LED 15W WW IS	175	IP44
3034070	INSAVER 175 HO TOPPR LED 15W NW IS	175	IP44
Insaver 200 HO Topper LED			
3034071	INSAVER 200 HO TOPPR LED 21W WW IS	200	IP44
3034072	INSAVER 200 HO TOPPR LED 21W NW IS	200	IP44

Legend: NW = Neutral white; WW = Warm White; WH = White; IS = Isotera

Motto Trend LED

Code	Description	Cut out size (mm)	Ip-Rating
Motto Trend Mono			
3034061	MOTTO TREND LED MONO WH 36° WW IS	97 x 97	IP20
3034062	MOTTO TREND LED MONO BA 36° WW IS	97 x 97	IP20
Motto Trend Duo			
3034063	MOTTO TREND LED DUO WH 36° WW IS	182 x 97	IP20
3034064	MOTTO TREND LED DUO BA 36° WW IS	182 x 97	IP20
Motto Trend Trio			
3034065	MOTTO TREND LED TRIO WH 36° WW IS	267 x 97	IP20
3034066	MOTTO TREND LED TRIO BA 36° WW IS	267 x 97	IP20

Legend: WW = Warm White; WH = White; BA = Brushed Aluminium; IS = Isotera

Signo LED

Code	Description	Cut out size (mm)	Ip-Rating
Signo 155 LED			
3034073	SIGNO 155 LED 33W WW WH IS	155	IP20
3034074	SIGNO 155 LED 33W WW SI IS	155	IP20
3034075	SIGNO 155 LED 33W WW BL IS	155	IP20
3034076	SIGNO 155 LED 33W NW WH IS	155	IP20
3034077	SIGNO 155 LED 33W NW SI IS	155	IP20
3034078	SIGNO 155 LED 33W NW BL IS	155	IP20
Signo 205 LED			
3034079	SIGNO 205 LED 44W WW WH IS	205	IP20
3034080	SIGNO 205 LED 44W WW SI IS	205	IP20
3034081	SIGNO 205 LED 44W WW BL IS	205	IP20
3034082	SIGNO 205 LED 44W NW WH IS	205	IP20
3034083	SIGNO 205 LED 44W NW SI IS	205	IP20
3034084	SIGNO 205 LED 44W NW BL IS	205	IP20

Legend: WW = Warm White; WH = White; SI = Silver; BL = BLack; IS = Isotera

For complete ordering guide and more information on our products, please visit: http://www.havells-sylvania.com