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This document is available to all sales agents or representatives responsible for promoting Node and has been designed to give a clear overview of the Node products and system as well as its key selling features and responses to common inquires. This should enable the sales agent or representative to handle initial enquiries and vet them prior to sending to PARC's dedicated team of Node Project Engineers for detailed review and quoting.



## INTRODUCTION TO NODE

When designing and fitting out a building, architects and designers aim for a synthesis of all elements, making considered decisions regarding function and aesthetics. For too long, a building's services – lighting, ventilation and fire protection among others – have been overlooked in this process. Frequently seen as obligatory systems rather than design elements in their own right (and often the product of regulation rather than design) they can often frustrate the design process rather than facilitate it. Visually, the ceilings can look cluttered.

It's a situation not helped by the sheer variety of systems and devices available. Each has its own design, size and configuration, and each will have its own specifications and method of installation.

Working in concert with the Industrial Design group at Foster+Partners, PARC has developed Node as a solution to this problem. Node is a visually coordinated family of devices, interfaces, and channels that allows for more visually appealing and functional spaces by harmonizing building services with the overall aesthetic of the project.

### MARKETING

### TARGET MARKET/APPLICATIONS

Node is initially presented as a premium quality product aimed at the higher end of the commercial construction market. Suitable applications would include:

- Class A office spaces<sup>1</sup>
- High-end retail
- Large public spaces such as concourses, malls or airports

### **MARKETING MATERIAL**

- PARC is able to organise office visits and CPD or sales
   presentations to give an overview of the system to prospective customers.
  - **NOTE:** Presentations cannot be shared directly with customers and must be presented by a PARC team member.
- **Node Brochure** (Large Format) available upon request from PARC or online. Scan QR code to download.
- **Node samples** Available upon request from PARC or via the *Request a Sample* link on the PARC website.
- Node datasheets, installation documentation and technical details digital versions available via Product Details page on <a href="https://www.barc-ceilings.com/products/node">www.barc-ceilings.com/products/node</a>.

Much of this information is available in both English and German. Please inquire with PARC if additional languages are required.

### **KEY SELLING POINTS**

- Node elevates a long-overlooked, yet vitally important aspect of building design, building services, to the level it deserves.
- With each element sharing the same visual characteristics, and with size, shape and materials unified, Node ensures system components remain complementary. Adhoc, visibly jarring elements become a thing of the past.
- Node can be incorporated into a variety of ceiling types, in both channels and surface-mounted applications.
- Node can be specified as one system, rather than individual services, which makes it easier to design, coordinate and specify.
- A select group of high-quality, third party manufacturers have been working closely with us on the coordinated family of devices that comprise Node.







Product details page

<sup>&</sup>lt;sup>1</sup> The Building Owners and Managers Association (BOMA) classifies office space into three categories: Class A, Class B, and Class C. According to BOMA, Class A office buildings have the "most prestigious buildings competing for premier office users with rents above average for the area". BOMA states that Class A facilities have "high quality standard finishes, state of the art systems, exceptional accessibility and a definite market presence". BOMA describes Class B office buildings as those that compete "for a wide range of users with rents in the average range for the area". BOMA states that Class B buildings have "adequate systems" and finishes that "are fair to good for the area", but that the buildings do not compete with Class A buildings for the same prices. According to BOMA Class C buildings are aimed towards "tenants requiring functional space at rents below the average for the area.





Ift Flush Channel Two Device (non-functional)
Available in white or black powder coat



Ift Recessed Channel Two Device (non-functional)
Available in white or black powder coat



3ft Flush Channel All Device (non-functional) Available in white or black powder coat



Includes driver and country specific electrical outlet plug



3 ft Recessed Channel Two Device (non-functional) Available in white or black powder coat



Functional Node Downlight



Functional Node Spotlight - Black



Functional Node Linear Light - Black

# SALES PROCESS

### **APPROVED COUNTRIES**

Due to the complex nature of the system, PARC assigns a dedicated Project Engineer to every Node project. As a result, it is our intention to limit our marketing efforts to Canada, the United States, the United Kingdom and the EU (with an emphasis on Germany and Switzerland) for the time being.

We would consider opportunities in other countries only if there is a compelling strategic value in doing so. For certain Node devices, certifications will play a part in whether we can participate in certain markets.



### **PROJECT VETTING**

Sales agents should complete an initial vetting on the opportunity in advance of engaging the PARC team. Below are the details of our initial project requirements:

- Project Name
- Representative Lead
- Owner
- Architect
- Engineer

- Projected Installation Date
- Opportunity Size (ft² or m²)
- Location
- Celling Interfaces
- Devices Required

### **CONTACTING PARC**

All enquiries should be directed to info@nodesystem.com

# PRODUCT DESIGN OVERVIEW

### **MOUNTING OPTIONS**



### **DEVICE AVAILABILITY**

Device	Description	Certifications
Lutron PIR Sensor	The Node Lutron PIR Sensor detects occupancy as part of a Lutron lighting control system	UL/FCC, CE
<b>DALI Network Sensor</b> The Node DALI Network Sensor detects occupancy a ambient lighting as part of a DALI lighting control system.		UL/FCC, CE
Ceiling Rose	Item is used to integrate pendent light fixtures	N/A
Flush Channel Plenum	Plenum to be integrated into Node Flush Channel to allow it to function as a slot diffuser	N/A
Recessed Channel Plenum	Plenum to be integrated into Node Recessed Channel to allow it to function as a slot diffuser	N/A
Concealed Pendent Sprinkler	OEM Sprinkler solution	UL, CE
Flush Pendent Sprinkler	OEM Sprinkler solution for the European market only	CE
Downlight	Non-Adjustable Light based on designs by Artemide	UL/FCC, CE
Spotlight	Adjustable Light based on designs by Artemide	UL/FCC, CE
Linear Light	Linear light based on designs by Artemide	UL/FCC, CE
Speaker	High quality audio speaker	N/A
Security Camera	rity Camera 1080P HD IP camera	
Emergency Light	Standalone emergency light for the European market only	CE
Smoke Sampling Point	Sampling point for smoke detection as part of a VESDA system	N/A

### **DEVICE MOUNTING MATRIX**

Device	Flush Channel	Recessed Channel Surface Mount		Trimless
Flush Channel Plenum	✓	-	-	-
Recessed Channel Plenum	-	✓	-	-
K1 Channel Downlight	-	✓	-	-
K2 Spotlight	✓	✓	✓	✓
K3 Flush Mount Downlight	-	-	-	✓
K4 Linear Light	✓	✓	✓	-
K5 Flush Channel Downlight	✓	-	-	-
Dali Sensor	✓	✓	✓	✓
Lutron Sensor	✓	✓	✓	✓
Emergency Light	✓	✓	✓	✓
Security Camera	✓	✓	-	✓
Speaker	✓	✓	-	-
Concealed Pendent Sprinkler	✓	-	-	✓
Flush Pendent Sprinkler	✓	-	-	✓
Ceiling Rose	✓	✓	✓	✓
Smoke Sampling Point	✓	✓	-	✓

### **SENSOR COMPARISON**

Sensor	Communication Protocol	Sensing Type
Dali Sensor	Dali	Zone occupancy sensing and lux level sensing
Lutron Sensor	Lutron	Zone occupancy sensing

#### **IMPORTANT DIMENSIONS**

Device diameter	Channel reveal	Maximum channel length (single segment)
3.5 in [90 mm]	4.7 in [120 mm]	118.1 in [3 m]

#### **FINISHES**

Node Channels and devices are finished in a range of standard powder coat and anodized finishes. More information on standard finishes is available in the PARC finish guide.

Custom finishes can be provided and are subject to a setup charge. Finishes can also be matched to a sample if required.

**NOTE:** Our pre-coordinated sprinkler solution with Rapidrop is available with the sprinkler head in a limited range of colours. These are white, black and chrome. Custom colours are available upon request that must be approved and applied by Rapidrop in order to comply with LPCB regulations.



PARC finish guide download

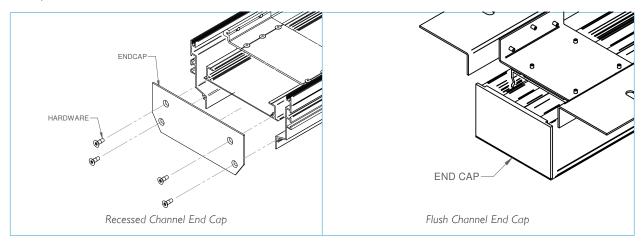
### THIRD PARTY DEVICES

Integration of third party devices is possible. However, this will need to be considered separately for each device and carries an engineering setup charge for each device. PARC will require a device sample to analyze the device's properties (dimensional data, electronic properties) in order to ensure that it fits within a Node channel and devise an appropriate mounting mechanism.

Devices can be integrated directly into the channel face, or into a Node device and housing.

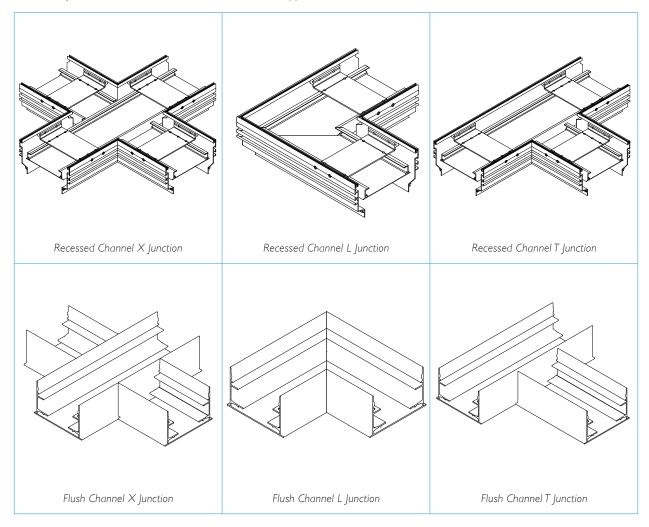
### **END CAPS**

Channels can be provided with or without end caps as project design requirements. End caps are factory installed as requested



### **CHANNEL JUNCTIONS**

I,L and T junctions are available for both channel types



#### **CURVED NODE CHANNEL**

The Node channel can be curved, however, this would require a custom, curved extrusion which carries a substantial cost premium. Please inquire with PARC for further information.

### **DEVICE FAQS**

### What drivers are the lights supplied with?

Standard, single-channel, remote Dali and 0-10V drivers are available.

### Can the speakers work in a PA/VA system?

The speakers are currently only available in passive form for use with audio amplification systems. Other PA/VA speaker drivers may be integrated into the channel upon request for an additional cost.

#### Are there smoke detectors available?

The Node Smoke Sampling Point is current the only available Node smoke detector solution. Please contact PARC to discuss options for integrating traditional smoke detectors.

### Are alternative Channel widths available?

Yes, PARC can supply custom Channel widths to suit project requirements. Custom Channels require new extrusion dies and therefore there is an associated cost and lead time implication.

### MANUFACTURING

### **MATERIALS AND MANUFACTURING**

Product Type	Material	Manufacturing Location	Assembly Location
Channels	Aluminium extrusion and sheet metal	Canada	Canada
Diffusers	Diffusers Aluminium sheet metal		Canada
Devices and Mountings	Polycarbonate (injection moulded)	China	Canada
Lights	Plastic, aluminium, glass	Italy	Canada

### LEAD TIME

PARC will issue a periodic Lead Time Statement to advise as to the most current Node component lead times.

### **PRICING**

A Node system has no standard price per square metre. Pricing for Node will naturally vary depend on the quantity of devices and length of channel for a particular project and PARC can only provide quotations against a reflected ceiling plan showing the precise devices and interfaces included in a project.

Typical pricing provided by PARC is the PARC sales price and does not account any profit margin for a reseller, such as a subcontractor, or for installation.

### WARRANTY

The Node system carries a limited two-year warranty. However, this warranty does not apply to components supplied directly by third parties for mounting into the Node system.



# INSTALLATION

We would expect a ceiling contractor to install the channels and the building services to be installed by the sub-contractor that would typically be responsible for those devices (lighting, sprinklers, etc.). All installation manuals can be found on our website.

Our Sprinkler partner, Rapidrop supply sprinklers in compliance with the applicable Loss Prevention Certification Board standards, while the Node visual elements provide an aesthetic cover. For channel mounting, the spacing brackets mount to the Node Channel and set the height for the sprinklers to ensure correct operation.

# ENVIRONMENTAL SCHEMES

Node can offer credit towards LEED and BREEAM schemes. Please refer to the LEED and BREEAM guides on our website for more details.

### **COMPETITORS**

### **ONE A STORM SYSTEM**

The Storm System is most comparable to Node Surface Mount and Flush Mounts and currently has no channel options. Overall the dimensions are very similar to Node, and there are is a large range of lights. Most devices can be ceiling or wall mounted.

### Node Competitive Advantage

 Storm System only comes in configuration similar to Node Flush (trimless) and Surface mounted, not as a channel solution



#### **FLOS**

Flos has a large range of track systems comparable to Nodes Recessed Channel, Flush Channel, as well as a suspended channel and surface channel. They only sell tracks and lights, however.

### Node Competitive Advantage

Flos supplied lights and channel only, not entire suite of building services

### **ZANIBONI LIGHTNING**

Zaniboni has a suspended and recessed linear channel, similar to Node Recessed Channel and Grid products. They offer several integrated devices for their channels including occupancy, daylight and CO2 sensors, video cameras, HVAC controls, sprinklers, speakers, downlights, and linear lights. Their channels have a minimum length of 16 in and are available in 4 in increments up to a maximum length of 80 in. The channel segments can be customized with their straight, T-shaped, L-shaped and cross-shaped connectors. Their smart system product line is titled 'Omni Linear'.



Under the same ownership as Zaniboni, BubblyNet creates Bluetooth-mesh products that can be integrated with Zaniboni lighting systems. As a result, Zaniboni products can be controlled on any Apple device using the Zaniboni Control App, created by BubblyNet. The app gives the user control over controls such as lighting schedule, colour, brightness, and sound masking.

### Node Competitive Advantage

- I he flush channel option allows Node to be more visually discrete.
- Node can be used in collaboration with Weave for seamless ceiling and device integration solutions.

#### **LUMI-PLUGIN**

The Lumi-Plugin system is comparable to Node's Flush (trimless) mounting and the devices are installed like many lights on the market. All device outers have the light ring, and the "Plugins" snap in, similar to Node. These lights are guaranteed to last for 5 years or 50,000 hours, whichever occurs first. The system has devices such as a smoke alarm, CO alarm and emergency light however very little information can be found on them, and it appears as if the system is in its infancy. The lights include a built in driver, which saves space, wiring and installation time. While the design language is consistent, the design is not as not as appealing as Node or other systems on this list.

### Node Competitive Advantage

- Node is more visually appealing
- Node has a larger variety of mounting styles
- Node has been installed and commissioned in commercial settings



### **APURE SYSTEM**

The Profile, which is the most developed mounting in the Apure System and similar to Node's Recessed Channel, comes in three types of modules – track module, which the devices fix to, power track module and HVAC track module. Linking all modules together in a row form the complete track. This means the HVAC can not be co located. The power track module powers up to 72' (22m) of track. The other mounting types currently only accommodate lighting, multisensory and speaker, and all devices and mounting types have a square shape.

### Node Competitive Advantage

Node has been installed and commissioned in commercial settings



### **CHANNEL SYSTEMS SUMMARY**

Competitor	Mounting Type (Node Comparable)	Devices	Ceiling Types	Finishes	Important Dimensions	Notable Installations
Richter	Recessed channel     Flush channel	<ul><li>Cameras</li><li>Speakers</li><li>Alarms</li><li>Fire suppression systems</li></ul>	Fabric panels	Fabric panels	• NA	Apple store     Apple Cupertino
Flos	<ul><li>Recessed channel</li><li>Flush channel</li><li>Surface channel</li><li>Suspended channel</li></ul>	<ul><li>Downlights</li><li>Spotlights</li><li>Pendant lights</li></ul>	<ul><li>Plaster</li><li>Wood</li><li>Metal</li><li>Concrete</li></ul>	• Black • White	• NA	• NA

Partners/Reps	HQ	Target Market (Spaces)	Market Position	Market Regions	EPDs
• NA	Heubach, Ger- many	Office spaces Retail	High end	NA	NA
Atrium Ltd     (rep)     Design Holding     (owner)	ltaly/Spain	Residential Office spaces Galleries Retail	High end	EU, Asia, LATAM, Middle East	NA

### **DEVICE COORDINATION SYSTEMS SUMMARY**

Competitor	Mounting Type (Node Comparable)	Devices	Ceiling Types	Finishes	Important Dimensions	Notable Installations
Armstrong TechZone	• "Technical Zone" similar to Flush channel	<ul><li>Diffuser</li><li>Sprinklers</li><li>Downlight</li><li>Linear light</li></ul>	<ul> <li>Chilled beams (Price)</li> <li>Radiant heat</li> <li>Wood panels</li> <li>Metal panels</li> <li>T bar ceiling</li> </ul>	<ul> <li>"Technical Panels:"</li> <li>Whitelume (WHA)</li> <li>Silverlume (SIA)</li> <li>Gun Metal (MYA)</li> <li>Black (BL)</li> </ul>	• 4,6 or 12" "Technical Zone" widths	Geisinger Medical Center, USA     Torrance Memorial Medical Center, CA     GMIA Baggage Claim, USA     UT Liberal Arts, USA     United States Green Building Council, USA
One A Storm System	<ul> <li>Circular fixings and devices</li> <li>Variety of mountings similar to:</li> <li>Flush (trim)</li> <li>Flush (trimless)</li> <li>Surface mounted</li> </ul>	<ul> <li>Variety of downlights</li> <li>Variety of spotlights</li> <li>Variety of pendant lights</li> <li>Speaker</li> <li>Motion sensor</li> <li>Security camera</li> <li>Smoke detector</li> <li>HVAC - "Storm air in" "Storm air out"</li> </ul>	<ul><li>Plaster</li><li>Wood</li><li>Metal</li><li>Concrete</li></ul>	<ul><li>22 neutral finishes</li><li>Brass, paint, anodised</li></ul>	Storm Medium - ø89mm - very similar to Node Storm Small - ø61mm	<ul> <li>A range of private residences in Europe</li> <li>Bestseller Restaurant, Denmark</li> </ul>
Lumi-plugin	• Flush (trimless)	<ul> <li>Downlight</li> <li>Sprinkler</li> <li>Smoke alarm</li> <li>Heat alarm</li> <li>CO alarm</li> <li>PIR sensor</li> <li>Emergency light</li> </ul>	<ul><li>Plaster</li><li>Wood</li><li>Metal</li></ul>	White     Others available     on request	øll0mm   Cut out –   ø9lmm   Max height   required from   ceiling face –   69mm	"· Mossbury     Road, Battersea,     London (3 bed- room home)     · St Modwen     Homes – The     Dice, Marketing     Suite, Uxbridge"
SAS International Systems – Integration of Services into Bulkheads, Gantries, Rafts	• Flush (trim)	Integration     of third party     devices	• Metal	White     Standard RAL	No device coordination	"· Bloomberg, London     · Westfield     Stratford, London     · i360, Brighton     · Blackfriars     Bridge, London"

Partners/Reps	HQ	Protocol	Target Market (Spaces)	Market Position	Market Regions	EPDs
<ul> <li>ALW (Lighting)</li> <li>FlexHead (Sprinklers)</li> <li>Focal Point (Lighting)</li> <li>Price (Chilled Beams + Diffusers)</li> <li>Radiant Electric Heat (Radiant Heat)</li> <li>USAI Lighting (Lighting)</li> <li>XAL (Lighting)</li> <li>Axis (Lighting)</li> </ul>	Lancaster, USA	NA	Medical centres Offices Universities Commercial	Mid range	Americas	Yes
• NA	Stenderup, DK	230V Master 230V Salve KNX KNX/Temp Dali SYS Dali BMS	Residential Restaurants Retail	High end	EU	NA
"· Rapidrop (sprinklers)     · Medlock (stockist)"	Newbury, UK	NA	Residential		EU	"Yes 2002/96/EC 2011/65/EU 1907/2006"
• · NA	Reading, UK	NA	Commercial		EU, US and Canada, Australia, Middle East	Yes

### CHANNEL AND DEVICE COORDINATION SYSTEM SUMMARY

Competitor	Mounting Type (Node Comparable)	Devices	Ceiling Types	Finishes	Important Dimensions	Notable Installations
Apure System	<ul> <li>Square fixings and devices</li> <li>Recessed channel</li> <li>Flush (trim)</li> <li>Flush (trimless)</li> <li>Surface mounted</li> </ul>	<ul> <li>Fixed downlight</li> <li>Adjustable downlight</li> <li>Spotlights</li> <li>HVAC</li> <li>Speaker</li> <li>Multisensor</li> <li>Security camera</li> <li>Power module</li> </ul>	Plaster Wood	T standard an- odized finishes     2 exclusive     plated options:     Chrome or 18     carat Gold     213 RAL     custom powder     coated colors	Devices - 101x 101mm  Channel - Height - 274.7mm, Width - 230mm,Visable width - 109mm  I fixture/ft	<ul> <li>One Thousand Museum by Zaha Hadid</li> <li>Regalia Tower, Miami</li> <li>A range of private residences in North America</li> </ul>
LF Illumination EF400	Recessed channel     90° L,T, and X connectors	<ul> <li>Range of spotlights</li> <li>Linear light</li> <li>Can integrate other devices</li> </ul>	Plaster Solid ceilings (eg wood)	Black powder coat White powder coat Cost Custom	• Channel – Height – 6.082, Width – 17.24", Visible width – 4" and 5", Lengths – 6", 12", 24", 48", 96" and custom depending on lighting choice	• Top Shop, NYC
Zaniboni Lighting	Recessed channel     Suspended channel	<ul> <li>Downlights</li> <li>Linear lights</li> <li>Occupancy sensor</li> <li>Daylight sensor</li> <li>CO2 sensors</li> <li>Video cameras</li> <li>HVAC controls</li> <li>Sprinklers</li> <li>Speakers</li> </ul>	• Not specified	Black     White     Custom colours	Length: • Min 16 in • Max 80 in • Width 3.94 in	• NA

Partners/Reps	HQ	Protocol	Target Market (Spaces)	Market Position	Market Regions	EPDs
Basalte (Sensors) Enea Outside (rep) (CH)  Luroluce (rep) (AUSNZ)  Mass Beverly (rep) (LA, USA)  Avenue Road (rep) (Toronto, CA, NYC, USA)	Miami, USA	KNX Crestron	Residential	High end	US and Canada EU AUSNZ	NA
• NA	California, USA	0-10V Dimming Lutron DALI	Retail Commercial Hospitality Residential	High end	US and Canada	NA
<ul> <li>Prolux Lighting and Controls (CA)</li> <li>King Lighting (USA)</li> <li>ESL (USA)</li> <li>Spectrum Lightning (USA)</li> <li>Pusle (USA)</li> </ul>	Clearwater, FL USA	NA	Commercial	High end	USA and Canada	NA

