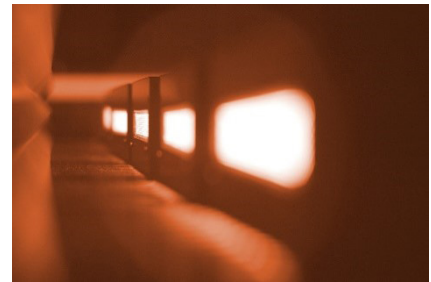


Phoseon NIR Explorer™

Product Overview

Phoseon Technology provides patented and proprietary LED curing solutions that offer high-performance and long lifetime. The Company is 100% focused on LED technology and provides worldwide sales and support capabilities.



Company

In-house R&D
Internal Manufacturing
Thermal Management
Custom Optics

Products

Optimized Performance
Rugged & Reliable
Extensive Portfolio
Long Lifetime


Solutions

Patented Technologies
Application Specific
Engineering & Maintenance Services
Scalable Lengths




Phoseon LED Curing Technology


Phoseon's cutting edge NIR LED systems are ideal for novel NIR curable adhesives and R&D on such applications. Further this technology has shown potential in pinning and improving print quality on water-based and hybrid inks (low migration) in inkjet printing before the final curing stage. Accelerate innovation and choose success with Phoseon as your technology partner.

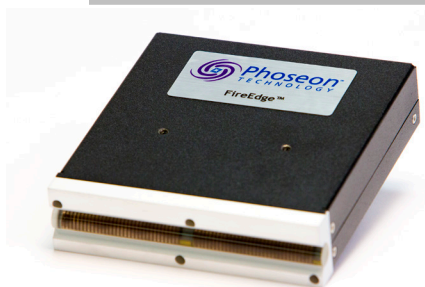
Product Name	Emitting Window (mm)	Typical Output Power per 75mm	Peak Irradiance (W/cm ²)	Key Features
FireJet™ NIR Explorer				Air-cooled 





150 225 x 20	260	20	 TargetCure™ technology  WhisperCure™ technology <ul style="list-style-type: none"> • Scalable • Digital/analog control • Small form factor
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Phoseon's FireJet™ NIR Explorer offers the most power in an air-cooled packet at 260W output power per 75mm. The 20mm wide window guarantees that the energy is spread wider for a larger dose and exposure time in high speed applications.

Product Name	Emitting Window (mm)	Typical Output Power per 80mm	Peak Irradiance (W/cm ²)	Key Features
FireEdge™ NIR Explorer				Air-cooled 



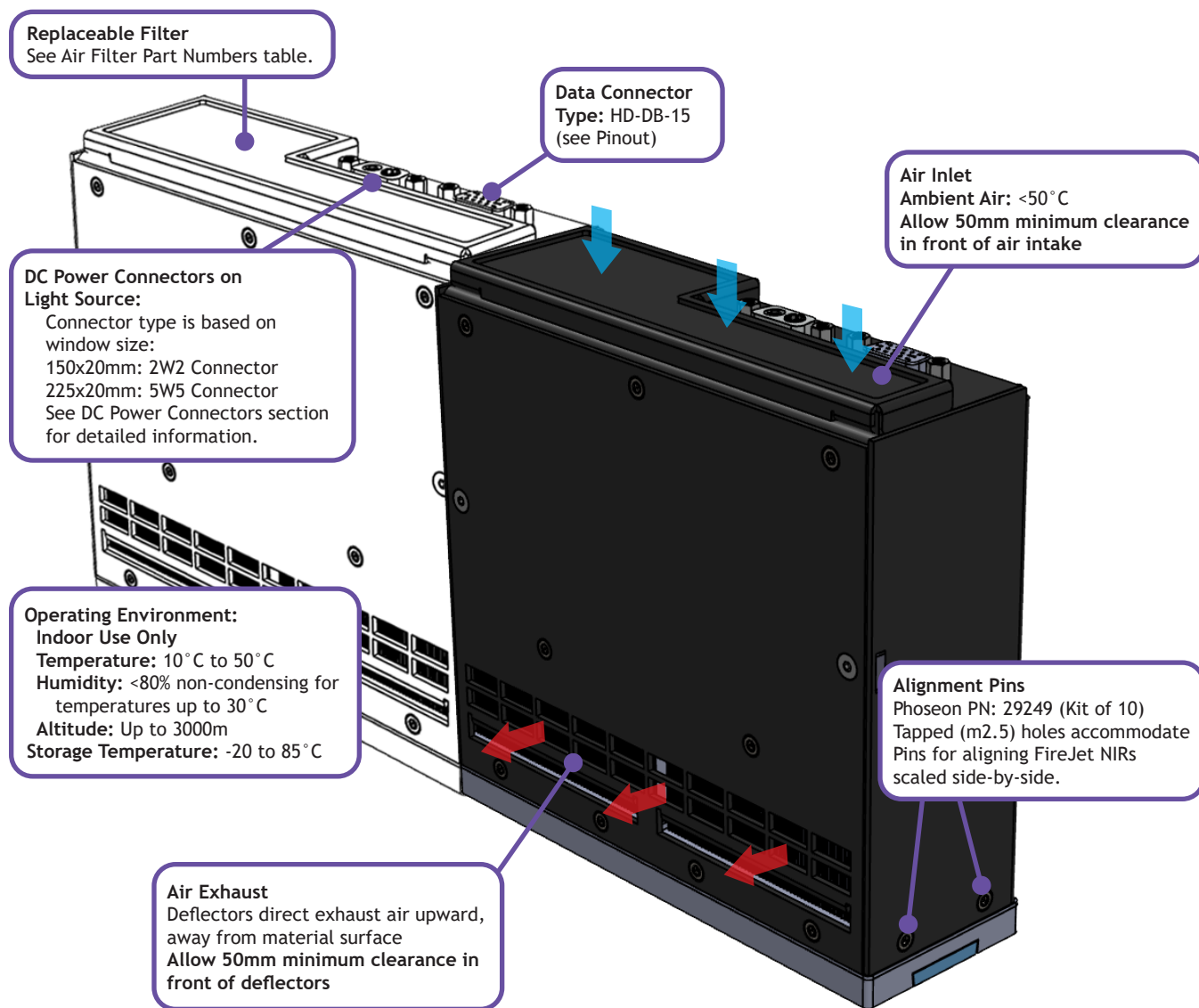
80 x 10	55	8	 TargetCure™ technology  WhisperCure™ technology <ul style="list-style-type: none"> • Scalable • Analog control • Small form factor
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The FireEdge™ NIR Explorer is the smaller brother of the FireJet NIR Explorer. It offers roughly 1/5 the output power with a 10mm wide rod lens. The small form factor in combination with the more focused rod lens output is ideal to deliver high intensity at 5-10mm working distance.

FireJet NIR Explorer Performance

	FireJet NIR Explorer	
Peak Irradiance	20W/cm ²	
Emitting Window (mm)	150x20	225x20
Maximum Fan Capacity	100 CFM	150 CFM
48V Power In (Max)	1700W, 35A	2350W, 48A
Typical NIR Emitting Power	520W	780W
DC Connector Type	2W2	5W5

FireJet NIR Light Source Setup (150, 225x20mm Windows)



FireJet NIR Dimensions

Units of measurement: mm

FireJet NIR Explorer		
NIR Emitting Window (mm)	150x20	225x20
L	152.3	227.8
H	147.0	147.0
W	52.0	52.0
a	136.0	211.7
Weight (kg)	1.0	1.5

CAD files are available upon request.

FireJet NIR Connectors & PLC Interface

The male Dsub connector is used to provide power to the light source.

2W2 Connector (75, 150x20mm windows)

Mating DC Connector Options

2W2 Female Dsub connector

FCT PN: F2W2SC-K121

Input Voltage: 48±4Vdc

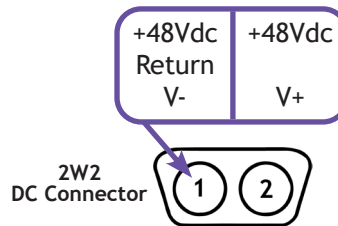
Mating Connector on Cable:

FCT PN: F2W2PC-K120 (Connector)

152-FMP007S103 (Socket)

152-FMP007P103 (Plug)

Phoseon Kit PN: 39598



5W5 Connector (225x20mm windows)

Mating DC Connector Options

5W5 Female Dsub connector

Connector Housing: FCI PN DB5W5SA00LF

Female Contacts:

FCI PN 8638PSS4005LF (40A Max Solder

Contacts) or FCI PN 8638PSC4005LF

(40A Max Crimp Contacts)

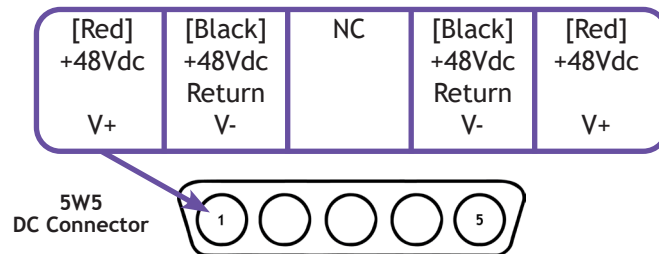
Phoseon Custom Backshell Kit PN: 32968

Female 40A 5W5 with Solder Contacts:

Norcomp PN 68055W5203L401

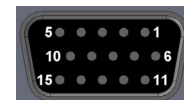
Custom Backshell Components plus hardware

Phoseon 2m Cable PN: 33167



The female HD-DB-15 connector is used to control the light source via PLC.

Data Connector

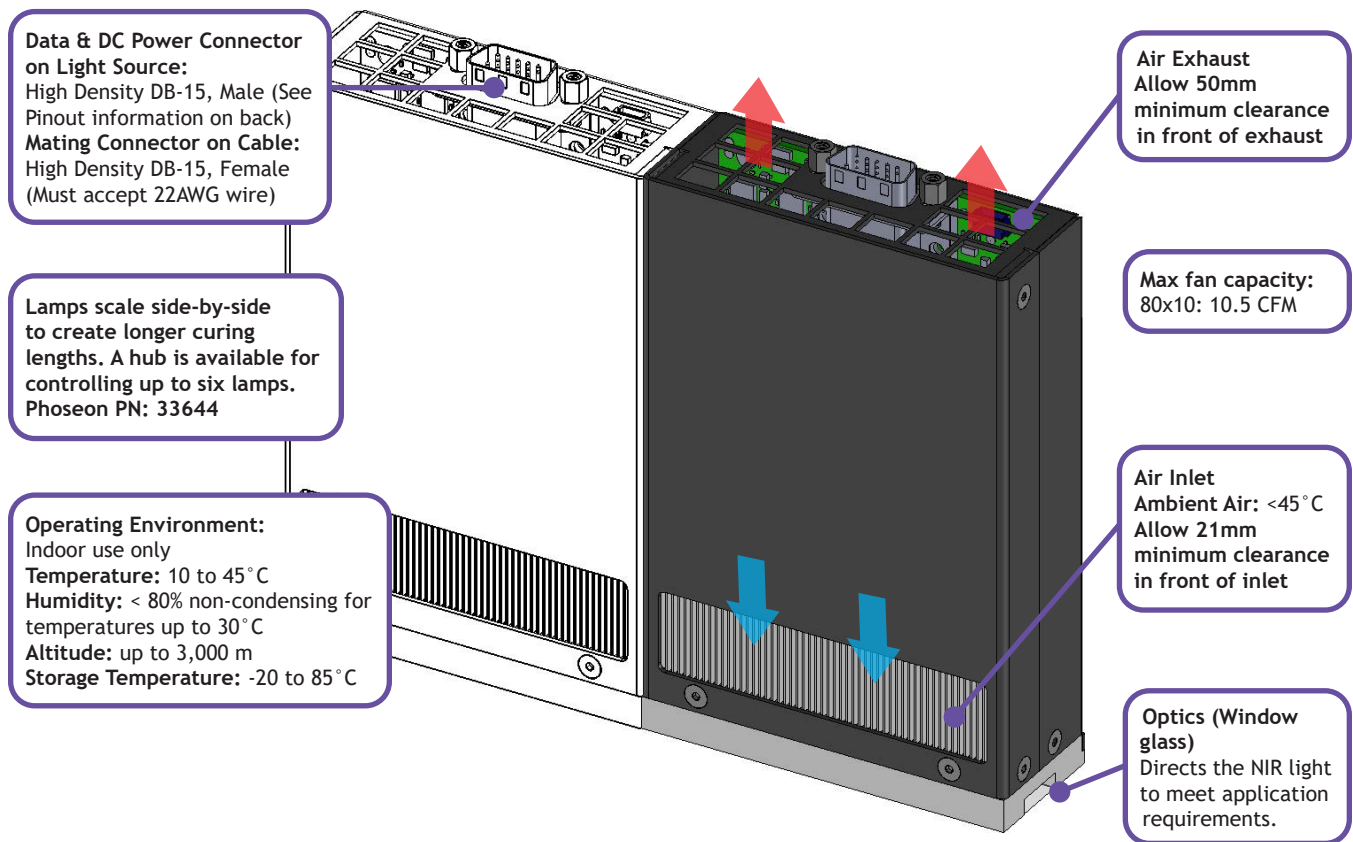


1 Do Not Connect	5 Lamp Ready: (24V PLC Output) 0 to 6V = Not Ready or 16 to 24V = Ready External resistive load on this Pin must be ≥10kΩ	11 Do Not Connect
2 Intensity Control: (Voltage Input) 0.5V = 5% of full power, 10V = 100% of full power Internal resistive load on this Pin is 100kΩ	6 Do Not Connect	12 RS485 Communication: Serial -
3 Enable High: (24V PLC Input) 0 to 6V (ground/open input) = OFF or 16 to 24V = ON Internal resistive load on this Pin is 125kΩ	7 Do Not Connect	13 RS485 Communication: Serial +
4 Do Not Connect	8 Ground	14 Ground
	9 Ground	15 Temperature Monitor: (Voltage Output) Voltage proportional to SLM heat sink temperature 0.1V = 1°C External resistive load on this Pin must be ≥10kΩ
	10 Ground	

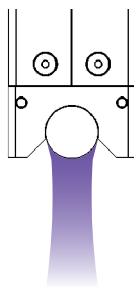
FireEdge NIR Explorer Performance

	FireEdge NIR Explorer
Peak Irradiance	8 W/cm ²
Emitting Window (mm)	80x10
Maximum Fan Capacity	10.5 CFM
48V Power In (Max)	215W, 4.5A
Typical NIR Emitting Power	55W
DC Connector Type	HD-DB-15

FireEdge NIR Light Source Setup (80x10mm Window)



FireEdge NIR Optics: Angle Reduction Technology (ART)



Rod Lens

- Minimum light spread
- Reduces stray light effects

FireEdge NIR Dimensions

Units of measurement: mm

FireJet NIR Explorer	
NIR Emitting Window (mm)	80x10
L	81.6
H	130.0
W	31.5
a	56.0
Weight (kg)	0.31

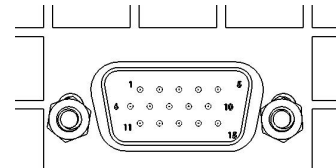
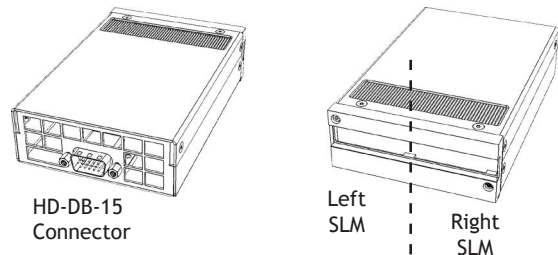
CAD files are available upon request.

FireEdge NIR Connectors & PLC Interface

- Intensity Control: (Voltage Input)**
0.5V = 5% of full power, 10V = 100% of full power
The internal resistive load on this Pin is 11kΩ
- Enable High: (24V PLC Input)**
0 to 4V (ground/open input) = OFF or 16 to 24V = ON
Refer to pin equivalent circuit for internal resistive load.
- Low Intensity Mode (24V PLC Input)**
0 to 4V (ground/open input) = OFF (Default Mode)
or 16 to 24V = ON (Low Intensity Mode)
In Low Intensity Mode the Peak Irradiance is reduced by a factor of 10
The internal resistive load on this Pin is 200kΩ.

	Pin 2 Intensity Control	
	0.5V (5%)	10V (100%)
Default Mode	400 mW/cm ²	8.0 W/cm ²
Low Intensity Mode	40 mW/cm ²	800 mW/cm ²

- Lamp Ready:**
0 to 4V = Not Ready or 16 to 24V = Lamp Ready
The external resistive load on this Pin must be >3kΩ
The NOT Ready state is triggered by:
Insufficient DC Input voltage
Excessive internal temperature



- Disable Left SLM™ (24V PLC Input)**
0 to 4V (ground/open input) = OFF (Default Mode)
or 16 to 24V = ON (SLM Disabled)
Refer to pin equivalent circuit for internal resistive load.
- Disable Right SLM™ (24V PLC Input)**
0 to 4V (ground/open input) = OFF (Default Mode)
or 16 to 24V = ON (SLM Disabled)
Refer to pin equivalent circuit for internal resistive load.
- 1, 6, 11, 12 +48Vdc Input**
8, 9, 10, 14, 15 Ground (+48Vdc Return)

Note: Low Intensity, Disable Left SLM, and Disable Right SLM are light source configuration switches. Phoseon does not recommend dynamic switching of these lines. Allow at least 250ms for the mode to enable or disable.