IPG Photonics Cutting Head

from the World Leader in Fiber Lasers

Applications

Features

Advantages

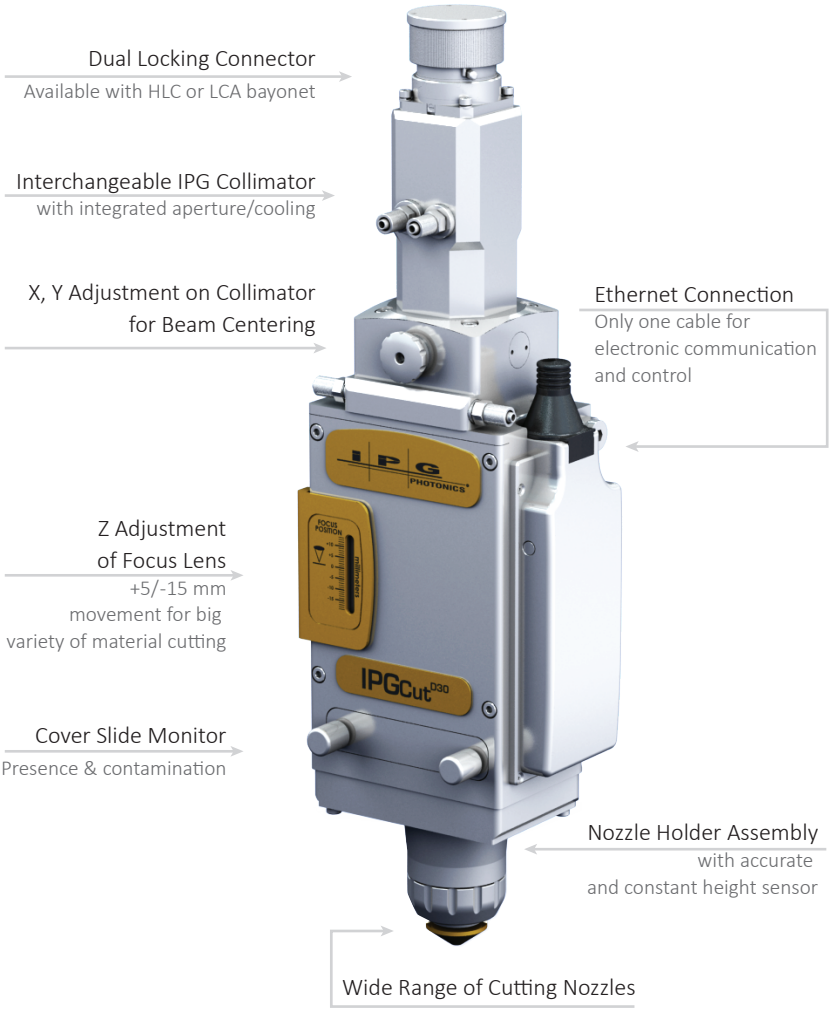
www.ipgphotonics.com

The Power to Transform®

IPGCut-D30 Cutting Head

Standard Features

IPG's D30 cutting heads are designed to provide the highest laser power handling capability in the industry in a completely sealed and lightweight package. The IPGCut-D30 provides effortless integration with IPG lasers and offers precise monitoring of height even under high power and high pressure cutting conditions. Available in multiple configurations with the broadest focus and collimator lens options, the IPGCut-D30 is the ultimate tool to cut a multitude of different material types and thicknesses.



Specifications

Laser Power	Up to 10 kW
Weight (V)	<4.7kg
Control Unit	IPG CHCE
Z Adjustment on Focus	Focus lens movement
	+5/-15 mm

	Configuration	Collimator	Focus	Fiber Receiver	Pierce Sensor
P30-007633 Base Part # Motorized Cutting Head	A Vertical	4 100 mm (Water Cooled) * Other options available upon request	A 125 mm B 200 mm D 150 mm	1 HLC-8 2 LCA 3 HLC-16	0 No 1 Yes
P30-002788 Base Part # Manual Cutting Head					

Example:

P30-007633-A4B11:

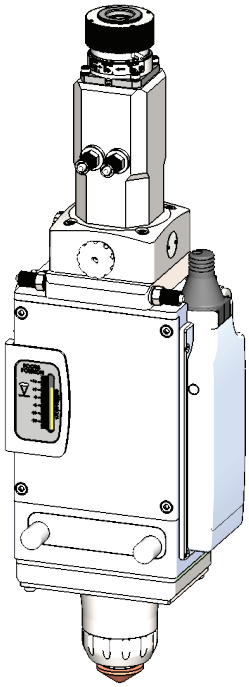
Vertical Motorized Cutting Head
100 mm Water Cooled Collimator
200 mm Focus
HLC-8 Fiber Receiver
Pierce Detection Sensor Included

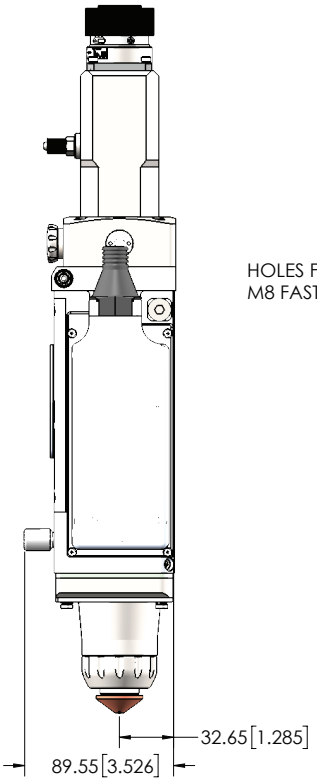
COMING SOON
IPGCut-HP

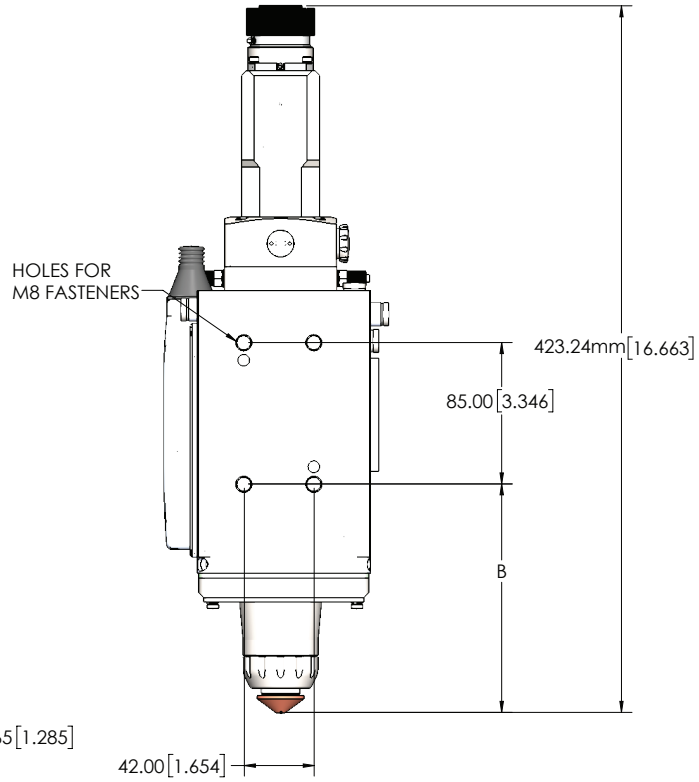
- The highest power handling in the industry.
- Plug and Play interface with high power IPG lasers

The Power to Transform®

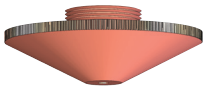
D30 Configurations







CUTTING HEAD ACCESSORIES



Replacement Nozzles

Diameters Available

Wide		Narrow		Dual Gas Passage	
• 0.8 mm	P40-003805-001	• 0.8 mm	P40-007141-004	• 0.8 mm	P40-008038
• 1.0 mm	P40-003805-002	• 1.0 mm	P40-007141-005	• 1.0 mm	P40-008038-001
• 1.2 mm	P40-003805-003	• 1.2 mm	P40-007141-006	• 1.2 mm	P40-008038-002
• 1.5 mm	P40-003805	• 1.5 mm	P40-007141-001	• 1.5 mm	P40-008038-003
• 1.8 mm	P40-003805-004	• 1.8 mm	P40-007141-007	• 1.8 mm	P40-008038-004
• 2.0 mm	P40-003805-005	• 2.0 mm	P40-007141-002	• 2.0 mm	P40-008038-005
• 2.3 mm	P40-003805-006	• 2.3 mm	P40-007141-010	• 2.3 mm	P40-008038-006
• 2.5 mm	P40-003805-007	• 2.5 mm	P40-007141-003	• 2.5 mm	P40-008038-007
• 2.8 mm	P40-003805-008	• 2.8 mm	P40-007141-008	• 3.0 mm	P40-008038-008
• 3.0 mm	P40-003805-009	• 3.0 mm	P40-007141-009	• 5.0 mm	P40-008038-009
• 3.2 mm	P40-003805-010				P40-008038-010
• 3.5 mm	P40-003805-011				P40-008038-011
• 4.0 mm	P40-003805-012				P40-008038-012
• 4.5 mm	P40-003805-013				
• 5.0 mm	P40-003805-014				

Protective Window

Parts Available

• Full Assembly	P30-007654
• Optics	P45-012927
• O-Ring	P40-009015

Control Electronics (included)

Nozzle Ceramic

Assembly

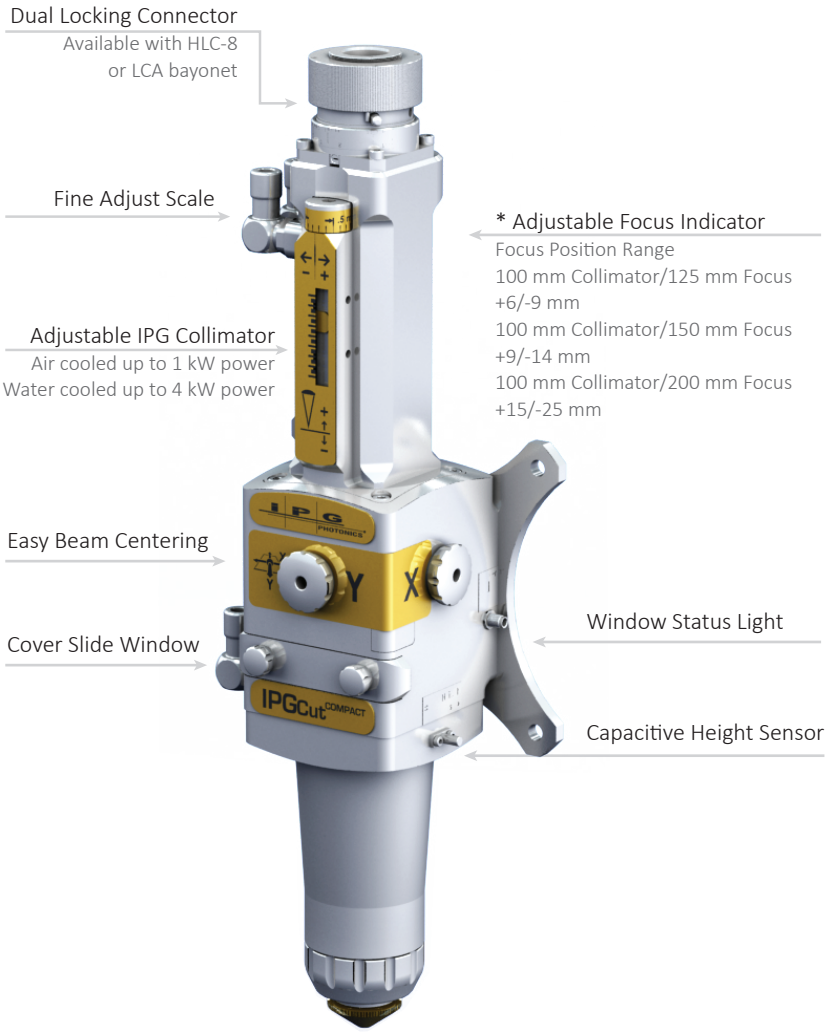
• Ceramic Assembly	P30-007834

IPGCut - Compact Cutting Head

IPG Photonics' Process Heads

Standard Features

IPG's compact cutting heads are the ideal solution for standard flat-bed cutting applications. The combination of IPG's compact cutting heads internal heads optics and its completely sealed architecture provide long term stability of both focal plane and beam quality at lasers up to 4 kW power. IPG's compact cutting heads are plug and play with all IPG lasers providing ease of integration and service. Utilizing all its attributes, IPG compact cutting heads not only provide precise cutting results, but they also maintain its precision cut quality over both time and laser power.



Specifications

Laser Power	Up to 4 kW
Weight (V)	<2.5 kg
Control Unit	IPG CHCE / External
Z Adjustment on Focus	Collimator lens movement
	*See table for details

P30-004330
Base Part #
Compact Cutting Head

Example:

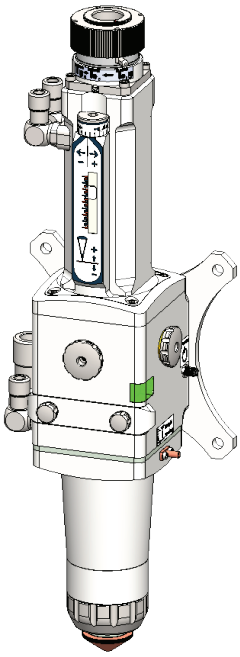
P30-004330-A4B10:
Vertical Compact Cutting Head
100 mm Water Cooled Collimator
200 mm Focus
HLC-8 Fiber Receiver
No Height Sensing

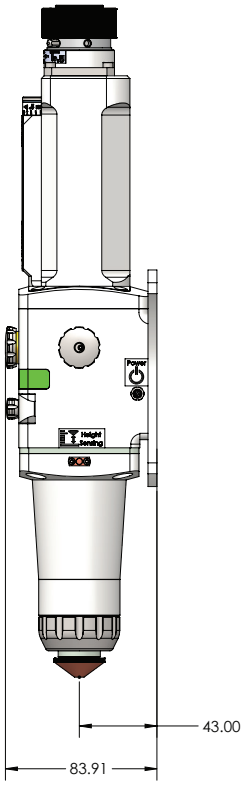
Configuration	Collimator	Focus	Fiber Receiver	Height Sensing Electronics
A Standalone	3 85 mm Water Cooled	A 125 mm	1 HLC-8	0 No
	4 100 mm Water Cooled	B 200 mm	2 LCA	1 Yes
	5 85 mm No Cooling	D 150 mm		
	6 100 mm No Cooling			

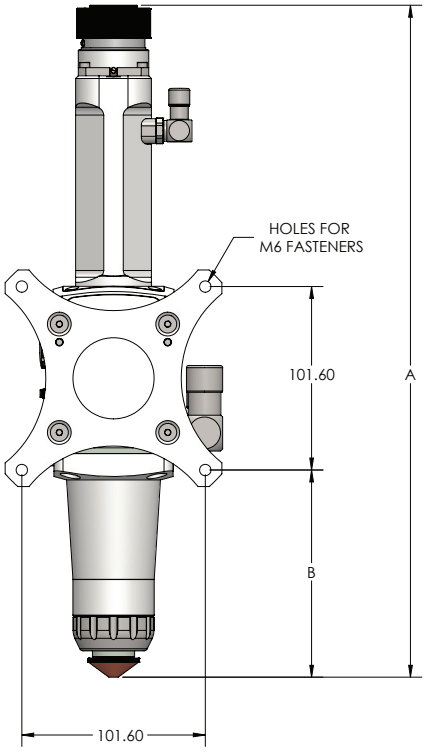
Compact Head Configurations

Focus Lens	125	150	200
A	320.99	343.70	372.83
B	65.59	86.30	115.43

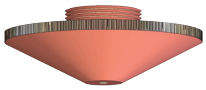
millimeters







CUTTING HEAD ACCESSORIES



Replacement Nozzles

Diameters Available

Wide		Narrow		Dual Gas Passage	
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• 1.0 mm	P40-003805-002	• 1.0 mm	P40-007141-005	• 1.0 mm	P40-008038-001
• 1.2 mm	P40-003805-003	• 1.2 mm	P40-007141-006	• 1.2 mm	P40-008038-002
• 1.5 mm	P40-003805	• 1.5 mm	P40-007141-001	• 1.5 mm	P40-008038-003
• 1.8 mm	P40-003805-004	• 1.8 mm	P40-007141-007	• 1.8 mm	P40-008038-004
• 2.0 mm	P40-003805-005	• 2.0 mm	P40-007141-002	• 2.0 mm	P40-008038-005
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• 2.5 mm	P40-003805-007	• 2.5 mm	P40-007141-003	• 2.5 mm	P40-008038-007
• 2.8 mm	P40-003805-008	• 2.8 mm	P40-007141-008	• 3.0 mm	P40-008038-008
• 3.0 mm	P40-003805-009	• 3.0 mm	P40-007141-009	• 3.5 mm	P40-008038-009
• 3.2 mm	P40-003805-010			• 4.0 mm	P40-008038-010
• 3.5 mm	P40-003805-011			• 4.5 mm	P40-008038-011
• 4.0 mm	P40-003805-012			• 5.0 mm	P40-008038-012
• 4.5 mm	P40-003805-013				
• 5.0 mm	P40-003805-014				

Protective Window

Parts Available

- Optics P45-012927
- O-Ring P40-009015

Control Electronics (included)

Nozzle Ceramic

Assembly

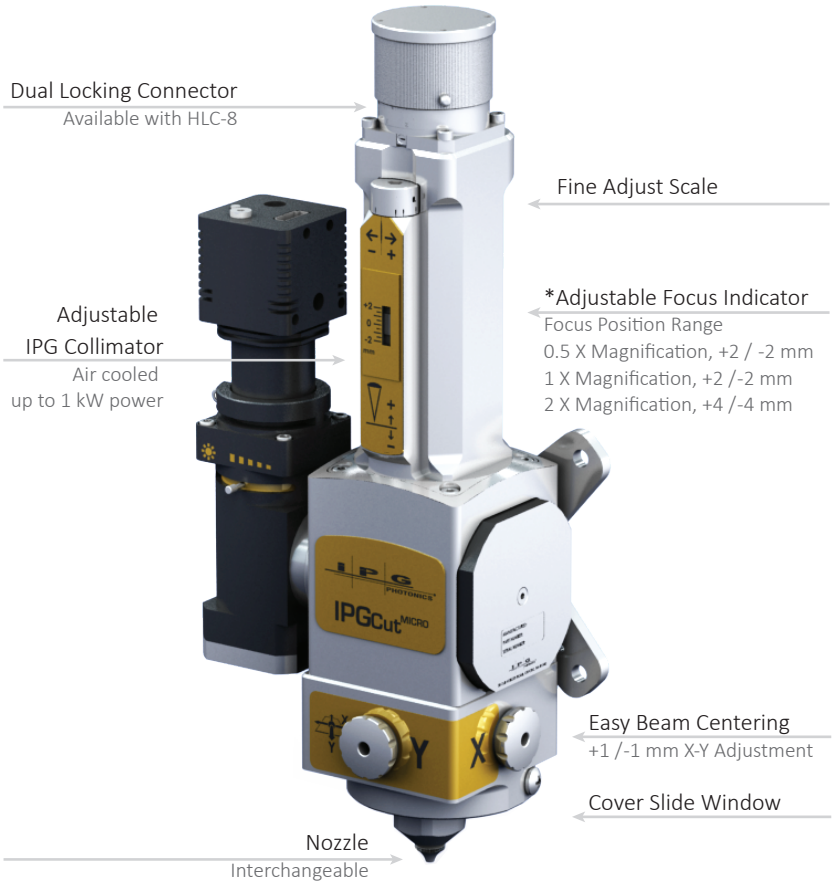
- Ceramic Assembly P30-007834

IPGCut Micro Cutting Head

IPG Photonics' Process Heads

Standard Features

IPG micro cutting heads provide the ideal solution for micro-machining applications which require small spot sizes and high-resolution focus adjustment. The combination of IPG Micro cutting head's internal optics and its completely sealed architecture provide long term stability of both focal plane and beam quality. IPG micro cutting heads are plug and play with all IPG lasers providing ease of integration and service. IPG micro cutting heads not only provide precise cutting results, but they also maintain its precision cut quality over both time and laser power.



Specifications

Laser Power	Up to 1 kW
Weight (V)	<2 kg
Control Unit	N/A
Z Adjustment on Focus	Collimator lens movement
	*See table for details

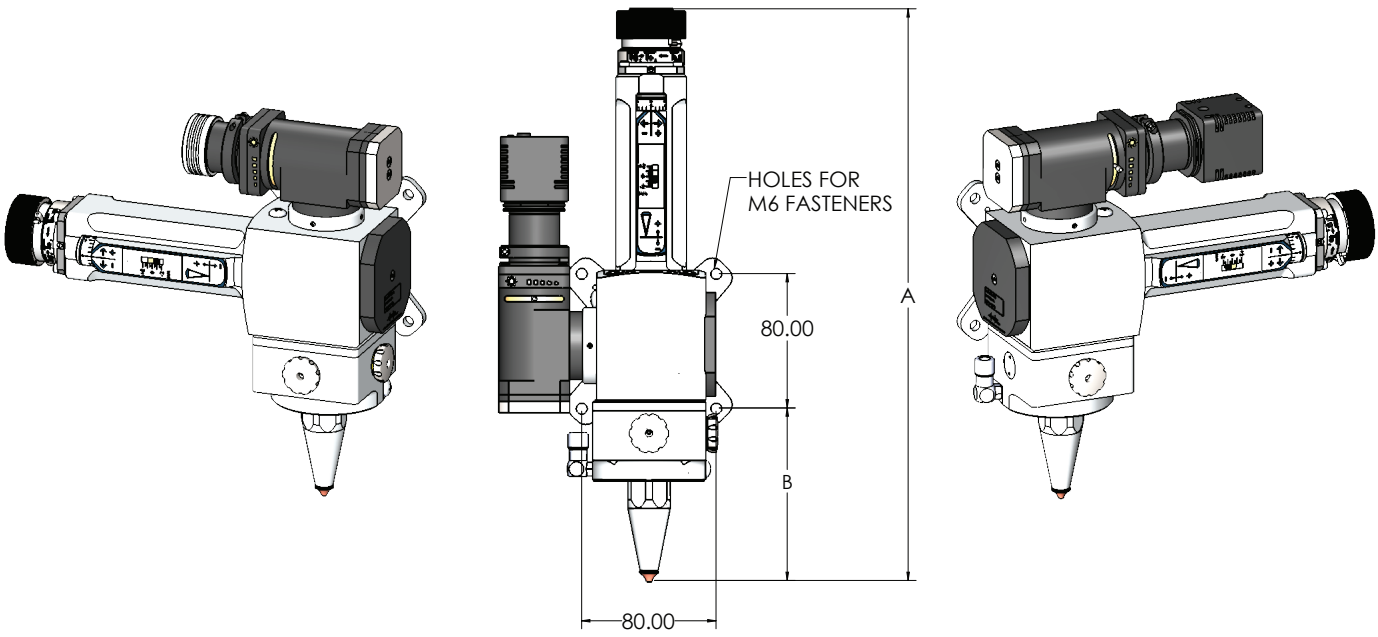
	Configuration	Collimator	Focus	Fiber Receiver
P30-010200 Base Part # Micro Cutting Head	R Horizontal (RHS)	1 50 mm	A 50 mm	1 HLC-8
	L Horizontal (LHS)	3 85 mm	C 85 mm	
	V Vertical	4 100 mm	D 100 mm	
	S Horizontal Standalone (Vertical no camera mount)			

Example:
P30-010200-V3C1:
Vertical Micro Cutting Head
85 mm Air Cooled Collimator
85 mm Focus
HLC-8 Fiber Receiver

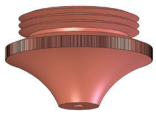
Micro Head Configurations

Configurations			
Focus Lens	50	85	100
A	306.22	325.52	340.46
B	68.51	87.81	102.75

millimeters



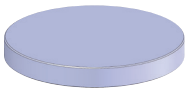
CUTTING HEAD ACCESSORIES



Replacement Nozzles
Diameters Available

- 0.2 mm P45-017701-001
- 0.3 mm P45-017701-002
- 0.4 mm P45-017701-003
- 0.5 mm P45-017701-004
- 0.8 mm P45-017701-005
- 1.0 mm P45-017701-006
- 1.2 mm P45-017701-007

Protective Window
Parts Available



- Optic only P45-012927

Camera Module

P30-002424

Camera

- HD Camera (HDMI Connection)
  P40-000125 (1280x720 resolution, 60fps)
  P40-000128 (Power supply for camera)
  P40-000130 (Controller for camera)

- PoEHS Camera (Ethernet Connection)
  P40-000126 (1280x966 resolution, 40fps)
  P40-000129 (Power supply for camera)

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IPG Photonics manufactures a wide range of laser products with laser classifications ranging from Class I to Class IV. Please review the individual product specification for the optical performance characteristics specific to the device. This information typically includes the wavelength range, output power (CW and/or Peak), Pulse Energy, Pulse Repetition Rate, Pulse Width, etc.

VISIBLE AND/OR INVISIBLE
LASER RADIATION
AVOIDE EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION

CLASS X LASER PRODUCT

Per IEC 60825-1: 2007-03; 21 CFR 1040: 10(g)

R12 06/19