

Heraeus

Noblelight

hum3<sup>®</sup> enterprise



*hum3<sup>®</sup> head module*



*Typical cabinet setup - static and remote*

## 1. Power supply

### 1.1 Characteristics

Dimensions	1500 x 800 x 500 mm (HxWxD)
Weight	215kg
Degree of protection	IP53
Cooling method	Air-cooled
Ambient temperature	10-35°C
Control interfaces	HMI and optical unit

### 1.2 Power output

Rated output power	10kW (modular 5/10kW increments available <50kW)
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### 1.3 Input requirements

#### Power:

Rated input voltage	3~ 400 V ±10 %, 50 Hz (other supplies on request) 20kVA 3~ 480 V ±10 % 60 Hz   200 V ±10 % 50/60 Hz   240 V ±10 % 60Hz
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External fuse protection

400V (32A)

External connection cable

10m Harting to flying leads (12 core)

#### Control:

Start and stop

24Vdc

Speed control

4-20mA or 0-10V

Additional communication protocols

Profinet, Modbus

Remote access

Ethernet/mobile data through additional unit

#### Safety:

E-Stop

Located on the front door and remote HMI plus customer integration

Interlock

Customer integration

Notes:

Figures for 10kW single head system, further options available on request

## 2. Remote unit

### 2.1 Characteristics

Dimensions	1000x600x250mm (HxWxD)
Weight	80kg
Degree protection	IP53
Cooling method	Air-cooled
Ambient temperature	10-35°C
Mounting	Robot or gantry
Maintenance requirements	Consumable air filter toolless change
Dynamic Requirements	Accelerations/decelerations ~1G

Notes

Suitable for mounting on robot or gantry installations where cable runs are prohibitively long. Dimensions based on single head 10kW unit.

## 3. Water chiller

### 3.1 Characteristics

Dimensions	775 x 510 x 850 (HxWxD)
Weight	125kg
Cooling capacity	6kW
Water flow	17 l/min
Tank capacity	11L
Noise	68dB
Conductance value	< 5µS/cm
Other features	Inline DR cartridge and particulate features

### 3. Water chiller continued

#### 3.2 Requirements

Water quality	De-ionised water
Water connection	Dry disconnection flow and return to optical module
Control	'plug and play' power and data connections

### 4. System

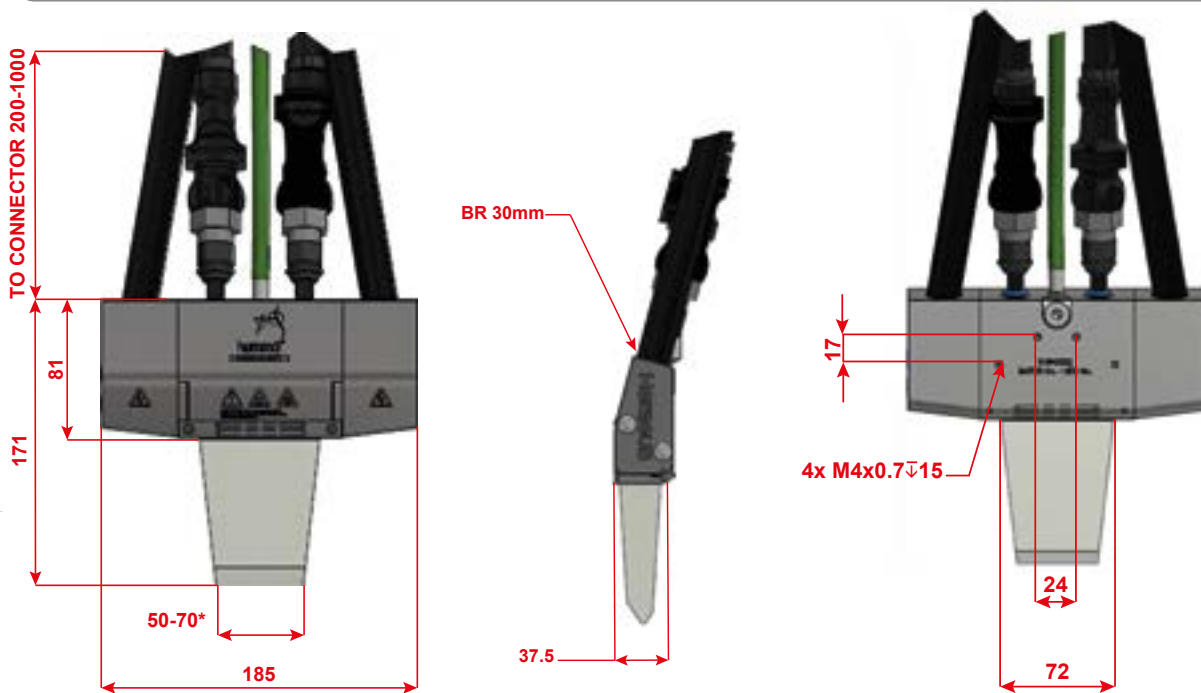
#### 4.1 Environmental data

System heat dissipation	ca. 5kW
Noise level, without processing	68 dBA at 1m distance
Electromagnetic compatibility	EN 6100

#### 4.2 Artificial Optical Radiation

This equipment is an intense source of radiation. Operators should take the appropriate eye and skin protection in accordance with EN 62471:2008 and/or Machinery Directive 2006/42/EC and/or any local directives that could apply.

### 4. Head (optical) module (HHM0032/2" heated width)

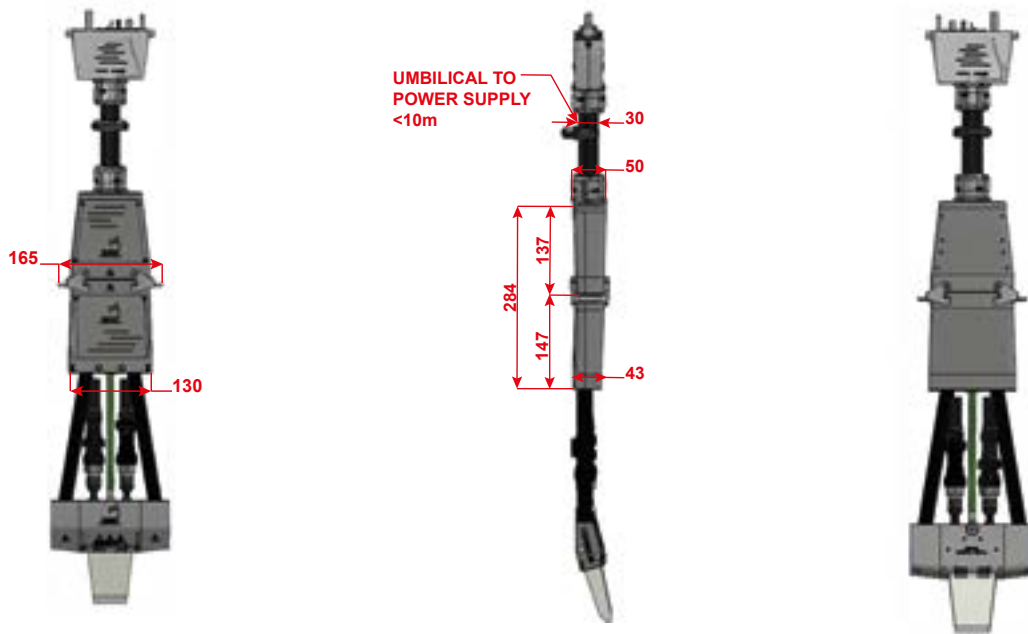


### 5.1 Head (optical) module (HHM0032/2" heated width) dimensions

#### 5.1 Characteristics

Rated max power	7.5kW
Module dimensions	171 x 37.5 x 185mm (HxDxW)
Optical process area	Scalable 25-52mm
Head mounting	4 x M4 holes on rear
Distance to connection box	200-1000mm
2 x cable OD/bend radius	ø21mm / 65mm
2 x hose OD/ bend radius	ø10mm/ 50mm

## 6. Power and data connector



### 6.1 Power and data dimensions

#### 6.1 Characteristics

Connector	283 x 165 x 50mm (LxWxH)
Umbilical	1 x power and data, 2 x coolant up to 10m long
Power cable OD	30mm long
Power cable weight	Application dependant
Power cable bend radius	2xd fixed 5xd minimum 10xd best
Hose (2) OD (3/4")	27mm
Hose bend radius	150mm
Weight head and connector	4.3kg

## 7. Control interface

The **hum3® enterprise** is supplied with a 10" wired Human Machine Interface (HMI) which sets the operating parameters, modulating pulse energy, width, and frequency of the flash lamp in response to input(s) from the robot. It can be fully integrated with customer's interface on demand.

### 7.1 Control interface dimensions

#### 7.1 Characteristics

Module	30.7 x 223.5 x 90mm (WxHxD)
Weight	1.6kg
Connection length	8m (2, 5, 10, 15, 20 and 25m available)

All information herein is indicative only and is subject to change without any notice at any time.

#### International contact

Heraeus Noblelight Limited	Heraeus Noblelight America LLC	Heraeus Noblelight GmbH	Heraeus K.K.	Heraeus Noblelight (Shenyang) Ltd.
Cambridge Science Park	1520C Broadmoor Blvd.	Heraeusstraße 12,	Tokyo	Shanghai Branch
Milton, Cambridge	Buford, GA 30518	63450 Hanau	2-9-3 Otsuka, Bunkyo-ku	No. 399 Guangzhong Road,
CB4 0GQ, UK		Germany	Japan	Minhang District, Shanghai, 201108
hnl-laserlamps@heraeus.com	info.hna.ip@heraeus.com	hng-info@heraeus.com		China Mainland
				info.hns@heraeus.com