Heraeus

Noblelight

humm3® discovery

humm3® head module

Typical cabinet setup

1. Power supply

1.1 Characteristics	
Dimensions	1500 x 800 x 500 mm (HxWxD)
Weight	165kg
Degree of protection	IP53
Cooling method	Air-cooled
Ambient temperature	0-35°C
Control interfaces	HMI and optical unit
1.2 Power output	
Rated output power	10kW
1.3 Input requirements	
Power:	
Rated input voltage	3~ 400 V ±10 %, 3P+E, 50 Hz (Other supplies on request)
Maximum input power	20kVA
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

2. Water chiller

2.1 Characteristics	
Dimensions	775 x 510 x 850 (LxWxH)
Weight	125kg
Cooling capacity	6kW
Water flow	17 l/min
Tank capacity	11L
Noise	68dB
Conductance value	< 5µS/cm
Other features	Non-return, solenoid value
Consumables	Inline DR cartridge and particulate features
2.2 Requirements	
Water quality	De-ionised water
Water connection	Dry disconnection flow and return to optical module
Control	'plug and play' power and data connections

Ambient temperature 10-35°C. Direct sun radiation and rapid temperature changes are to be avoided. Good room illumination is recommended.

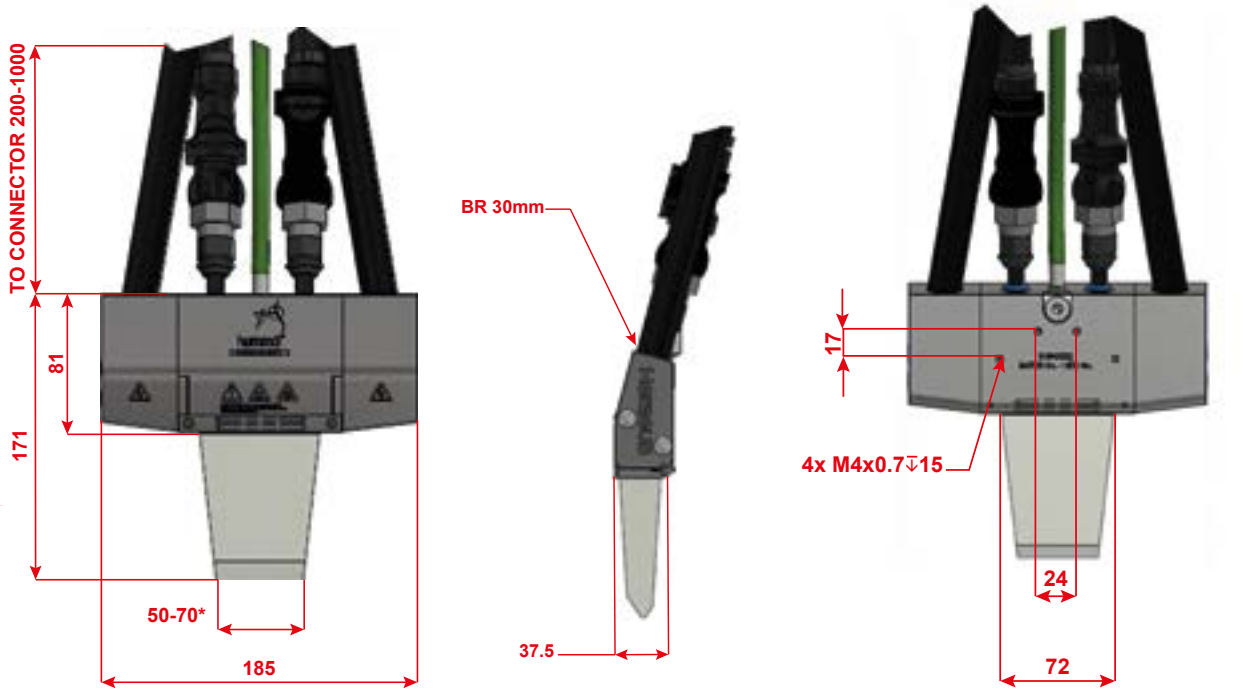
3. System

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

3.2 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.

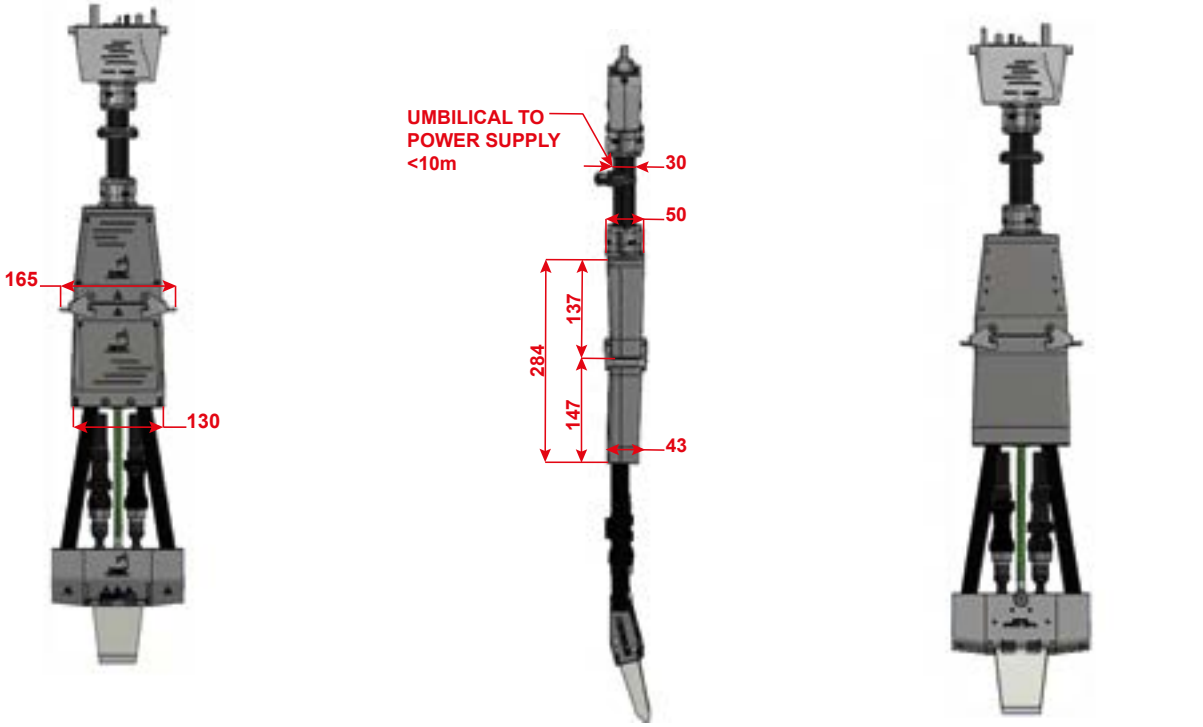
4. Head (optical) module (HHM0032/2" heated width)



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

4.1 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

5. Power and data connector



5.1 Power and data dimensions

5.1 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
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

6. Control interface

The **humm3® discovery** is supplied with a 10" wired Human Machine Interface (HMI) which interfaces with the applications PLC to set the operating parameters, modulating pulse energy, width, and frequency of the flashlamp in response to input(s) from the robot.

6.1 Control interface dimensions

6.1 Characteristics	
Module	30.7 x 223.5 x 90mm (W x H x D)
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.

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