

# NTW

## LIQUID-COOLED HOUSING FOR THERMAL CAMERAS

### MAIN FEATURES

- Made of AISI 316L electropolished stainless steel
- Steel cylindrical chamber for internal circulation of cooling liquid linked to an external circuit
- Zinc-Selenium glass for thermal cameras, wavelength 7.5 - 14µm (up to 200°C/500°F)
- Sapphire glass for shortwave thermal cameras, wavelength 0.75 – 4.5µm (up to 400°C/752°F)
- Designed to operate in high temperature environments
- IP66/IP67

### DESCRIPTION

The NTW housing, constructed from AISI 316L electropolished stainless steel, can be equipped with a Zinc-Selenium glass window designed for thermal cameras, wavelength 7.5 - 14µm, or with Sapphire glass window for shortwave thermal cameras, wavelength 0.75 - 4.5 µm.

The NTW consists of a body with a double chamber for the circulation of a cooling liquid or air. The NTW is enclosed by two thick flanges at either end and allows cables to pass through by means of two PG13.5 cable glands on the back flange. Two 1/2" GAS connectors allow for the cooling liquid inflow/outflow.

The NXW is equipped with a flange designed to create an air barrier in front of the glass. This prevents the formation of dust deposits and attenuates the heat of the glass itself. With the supplied air barrier, the NXFIGRU filter group is recommended, to purify the air drawn from a compressor.

The solid construction of this housing makes it suitable for heavy duty applications, such as the surveillance of ovens, foundries and other high temperature environments.



NTW

AVAILABLE MODELS			
Model Number	ZiSe glass	Sapphire glass	Ø glass window
NTW0K2000	✓	–	60mm
NTW0K3000	–	✓	60mm

**TECHNICAL DATA****GENERAL**

Constructed from electropolished stainless steel (austenitic alloy stainless steel, corrosion and heat resistant according to the following standards):

AISI 316L

UNI 6900-71: X 2 Cr Ni Mo 17 12 2

DIN 17006: X 2 Cr Ni Mo 17 13 2

N° werkstoff 1.4404

AFNOR: Z2 CND 17-12

BSI: 316S11

The screws utilised are in austenitic alloy stainless steel, corrosion and heat resistant according to the following standards:

- UNI 6900: X 5 Cr Ni Mo 1712
- AISI: 316
- ISO quality: A4
- Resistance class ISO: 80

UNI: Ente Nazionale Italiano di Unificazione, AISI: American Iron and Standard Institute, DIN: Deutsche Industrie Normen, AFNOR: Association Française de Normalisation, BSI: British Standard Institution, ISO: International Organization for Standardization.

**MECHANICAL**

Cable glands: 2PG13.5 (nickel-plated brass for external connections)

2 x 1/2" GAS connectors for liquid input / output

1x1/4" GAS connector for air barrier input

External body polishing

Gaskets: O-ring

Flange thickness: 9mm (back)

Window (Ø): 65mm (2.6in)(internal), 80mm (3.1in) (external)

External dimensions (ØxL): 154x380mm (6.1x15in)

Internal usable area (WxH): 78x78mm (3.1x 3.1in)

Internal usable length

NTW 345mm (13.6in)

Internal usable length with camera power supply

NTW 280mm (11.1in)

Unit weight: 10.2kg (22lb)

**Zinc Selenide glass**

Thick: 4mm (0.2in)

Operating temperature: 200°C (392°F)

Trasparency: from 7.5 to 14 µm

**Sapphire glass**

1mm (0.04in) thick

Operating temperature: 400°C (752°F)

Trasparency: from 0.75 to 4.5 µm

**Cooling liquid**

Application example with incoming water at 20°C (68°F) temperature:

T environmental 200°C (392°F), water flow 2 l/min (0.5US gal/min), T housing internal 32°C (89.6°F)

T environmental 300°C (572°F), water flow 2.2 l/min (0.6US gal/min), T housing internal 41°C (105.8°F)

T environmental 400°C (752°F), water flow 6.5l/min (1.7US gal/min), T housing internal 44°C (111°F)

**Cooling Air**

Application example with incoming air at 17°C(62°F) and an environmental temperature at 80°C(176°F)

pressure 1 Bar -flow rate 10 m<sup>3</sup>/h, the internal temperature is about 45°C(113°F)

pressure 2 Bar -flow rate 15 m<sup>3</sup>/h, the internal temperature is about 35°C(95°F)

**Air filtering**

Pressure air flow 0.3-2.5 Bar, filter 0.1 micron

**Air Barrier**

Max pressure 1Bar

**ELECTRICAL**

Camera power supply

IN 230Vac - OUT 12Vdc, 50/60Hz, 400mA

IN 230Vac - OUT 24Vac, 50/60Hz, 400mA

**ENVIRONMENT**

Indoor/Outdoor

**CERTIFICATIONS**

CE EN61000-6-3, EN60065, EN50130-4

IP66 EN60529

**ACCESSORIES**

OHEPS24	Camera power supply IN 230Vac - OUT 12Vdc, 10VA/5W, for NXW, NTW housings
OHEPS25	Camera power supply IN 230Vac - OUT 24Vac, 10VA, for NXW, NTW housings

**BRACKETS AND ADAPTORS**

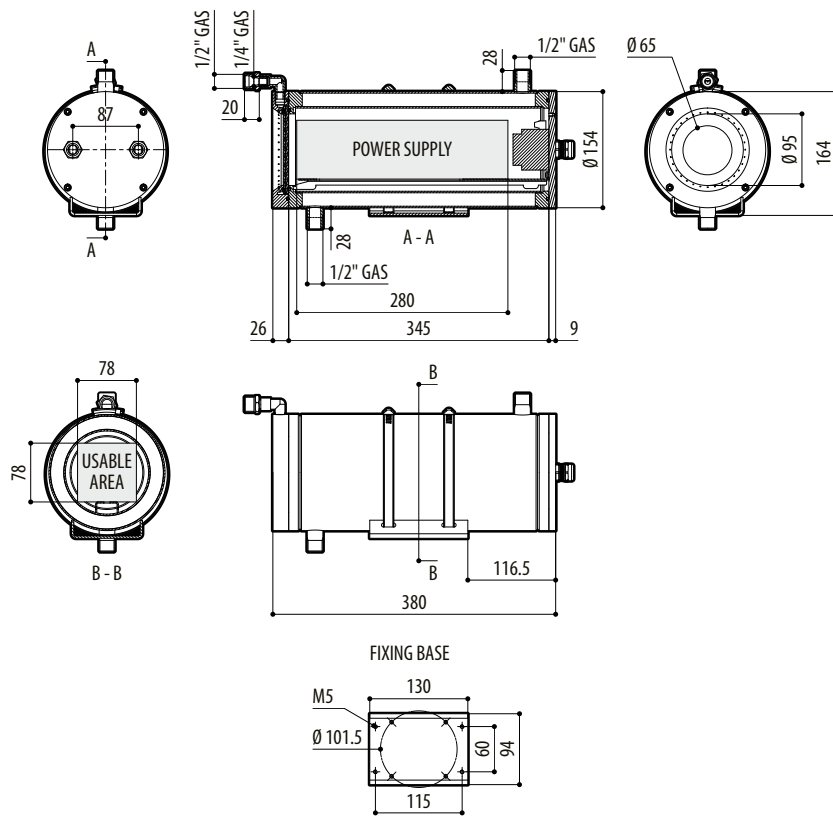
NXWBS1	Stainless steel wall bracket with joint
--------	---

**PACKAGE**

Model Number	Weight	Dimensions (WxHxL)	Master carton
NTWOK3000	10.8kg ( 23.8lb)		24.3x24.2x49.5cm
(9.6x9.5x19.5in)	-		

**TECHNICAL DRAWINGS**

Sizes in millimeters.



NTW

