

# NTW

## LIQUID-COOLED HOUSING FOR THERMAL CAMERAS



IP66

IP67



### DESCRIPTION

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.

The NTW housing, made of polished stainless steel AISI 316L, can be equipped with zinc selenide glass designed for thermal video cameras with a wavelength from 7.5 $\mu$ m to 14 $\mu$ m, or sapphire glass for shortwave thermal video cameras, with a wavelength from 0.75 $\mu$ m to 4.5 $\mu$ m.

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.

### 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 - 14 $\mu$ m (up to 200°C/500°F)

Sapphire glass for shortwave thermal cameras, wavelength 0.75 – 4.5 $\mu$ m (up to 400°C/752°F)

Designed to operate in high-temperature environments

IP66/IP67

## TECHNICAL DATA

### MECHANICAL

Housing manufactured in polished stainless steel (austenitic stainless alloy steel resistant to corrosion and heat):

- 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:

- ISO: 7380
- AISI: 316
- ISO quality: A4
- Resistance class ISO: from 50 to 70

External body polishing

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

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

Internal usable length: 345mm (13.6 in)

Internal usable length with camera power supply: 280mm (11in)

Flange thickness: 9mm (0.35in) (back)

Gaskets: O-ring

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

The flange with air barrier is equipped with a 1/4" Gas thread joint and a reduction from 1/2" Gas to 1/4" Gas.

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

Cooling liquid (application example with incoming water at 20°C (68°F) temperature):

- ambient temperature 200°C (392°F), water capacity 2l/min, temperature inside housing 32°C (89.6°F)
- ambient temperature 300°C (572°F), water capacity 2.2l/min, temperature inside housing 41°C (105.8°F)
- ambient temperature 400°C (752°F), water capacity 6.5l/min, temperature inside housing 44°C (111.2°F)

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

- with pressure 1bar, air capacity 10m<sup>3</sup>/h, temperature inside housing 45°C (113°F)
- with pressure 2bar, air capacity 15m<sup>3</sup>/h, temperature inside housing 35°C (95°F)

Air barrier (Flange with 8 holes)

- Male input 1/2" GAS
- System pressure: 4bar max
- Recommended minimum pressure: 2bar

Unit weight: 10.2kg (22lb)

### HOUSING'S WINDOW

Usable diameter: 65mm (2.6in)

Window in zinc selenide

- Thick: 4mm (0.16in)
- Operating temperature: 200°C (392°F) max
- Spectral range: from 7.5µm up to 14µm

Window in sapphire

- Thick: 1mm
- Operating temperature: 400°C (752°F) max
- Spectral range: from 0.75µm up to 4.5µm

### ELECTRICAL

Camera power supply

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

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

### ENVIRONMENT

For installation indoors and outdoors

Maximum working temperature (with water cooling):

- window in zinc selenide 200°C (392°F) max
- window in sapphire 400°C (752°F) max

### CERTIFICATIONS

Electrical safety (CE): EN60065

Electromagnetic compatibility (CE): EN50130-4, EN61000-6-3

IP protection degree (EN60529):

- IP66

EAC certification

### ACCESSORIES

OHEPS24 Camera power supply IN 230Vac, 50/60Hz - OUT 12Vdc, 400mA

OHEPS25 Camera power supply IN 230Vac, 50/60Hz - OUT 24Vac, 400mA

NXFIGRU Filtering group for compressed air cleaning

### BRACKETS AND ADAPTORS

NXWBS1 AISI 316L stainless steel wall bracket with joint

NXCOL AISI 316L stainless steel pole adapter module

NXCW AISI 316L stainless steel corner adapter module

### PACKAGE

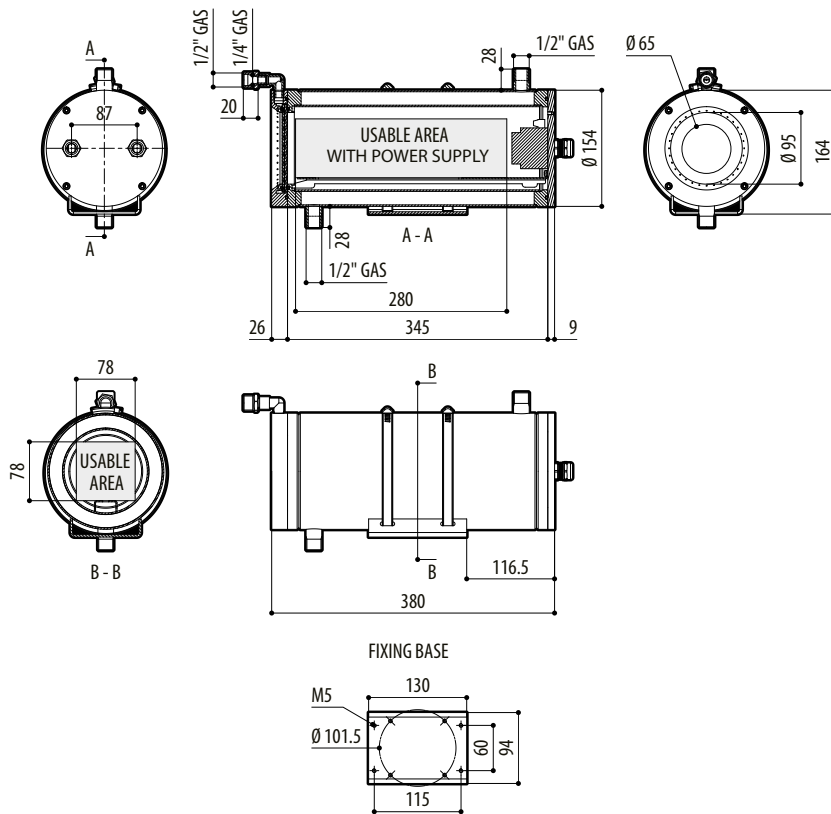
| Model Number | Weight           | Dimensions (WxHxL)                | Master carton |
|--------------|------------------|-----------------------------------|---------------|
| NTW0K3000    | 10.8kg ( 23.8lb) | 24.3x24.2x49.5cm (9.6x9.5x19.5in) | -             |

## AVAILABLE MODELS

| Model Number | ZnSe glass | Sapphire glass | Usable diameter |
|--------------|------------|----------------|-----------------|
| NTWOK2000    | ✓          | -              | 65mm (2.6in)    |
| NTWOK3000    | -          | ✓              | 65mm (2.6in)    |

## TECHNICAL DRAWINGS

The dimensions of the drawings are in millimetres.



NTW