

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 a zinc selenide (ZnSe) window designed for thermal video cameras (with a wavelength from 7.5µm to 14µm), or a sapphire glass window for shortwave thermal video cameras (with a wavelength from 0.75µm to 4.5µm).

The NTW housing consists of a body with double chamber for the circulation of coolant or cooling air, closed by two very thick flanges. The rear flange enables cable passage using two cable glands PG13.5. Two 1/2" GAS connectors control the input/output of cooling fluids.

The housing is equipped with a flange designed to create an air barrier in front of the window, with the dual purpose of preventing dust deposits and reducing the temperature. We recommend using the filter unit with the air barrier to clean the air normally suctioned by a compressor and, therefore with the presence of oil particles.

MAIN FEATURES

Made of AISI 316L electropolished stainless steel

Steel cylindrical chamber for internal circulation of cooling liquid linked to an external circuit

Zinc selenide (ZnSe) window, for thermal cameras, wavelength from 7.5µm up to 14µm (up to 200°C (392°F))

Sapphire glass window, for shortwave thermal cameras, wavelength from 0.75µm up to 4.5µm (up to 400°C (752°F))

Designed to operate in high-temperature environments

IP66/IP67

TECHNICAL DATA

GENERAL

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

MECHANICAL

External body polishing

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

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

Internal usable length: 345mm (13.6in)

Internal usable length (with power supply): 223mm (8.8in)

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

Gaskets: O-ring

2 x 1/2" GAS connectors control the input/output of fluids

1 x 1/4" Gas threaded joint with a reduction from 1/2"Gas to 1/4"Gas (flange with air barrier)

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

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 10m³/h, temperature inside housing 45°C (113°F)
- with pressure 2bar, air capacity 15m³/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)

Zinc selenide (ZnSe) window

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

Sapphire glass window

- Thick: 1mm (0.03in)
- Operating temperature: 400°C (752°F) max
- Spectral range: from 0.75µm up to 4.5µm

ELECTRICAL

Camera power supply

IN from 100Vac up to 240Vac, 50/60Hz - OUT 12Vdc, 1.25A

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

ENVIRONMENT

For indoors and outdoors installation

Maximum working temperature with water cooling:

- zinc Selenide glass: 200°C (392°F)
- sapphire glass window: 400°C (752°F)

Maximum working temperature with air cooling: 80°C

Relative humidity: from 5% up to 95%

CERTIFICATIONS

Electrical safety (CE): EN60065, EN62368-1

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

IP protection degree (EN60529): IP66, IP67

EAC certification

ACCESSORIES

NXCTPG13SS	Kit of 2xPG 13.5 stainless steel cable glands IP68 for stainless steel housings
ONXWPS1B	Camera power supply, IN from 100Vac up to 240Vac, 50/60Hz - OUT 12Vdc, 1.25A
OHEPS25	Camera transformer, IN 230Vac - OUT 24Vac, 400mA, for housings, NXW, NTW
NXFIGRU2	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
NXWTU	AISI 316L stainless steel adapter module for oblique surfaces
MHXWFWCA	AISI 316L stainless steel ball joint
MHXWBS	AISI 316L stainless steel wall bracket

PACKAGE

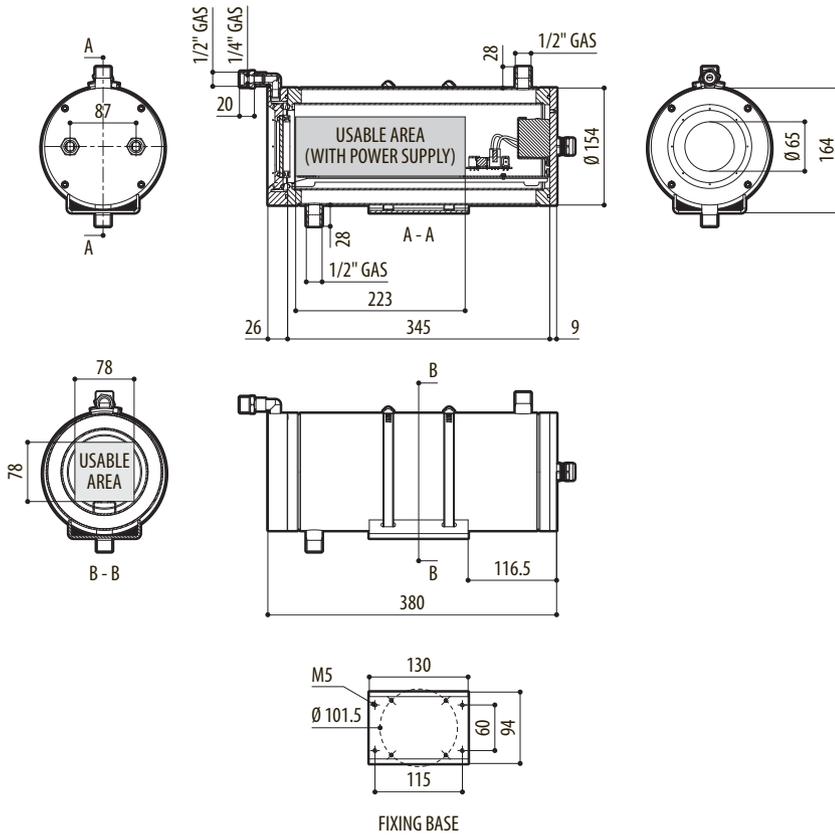
Model Number	Weight	Dimensions (WxHxL)	Master carton
NTW	10.8kg (23.8lb)	24.3x24.2x49.5cm (9.6x9.5x19.5in)	-

AVAILABLE MODELS

Model Number	Zinc selenide (ZnSe) window	Sapphire glass window	Usable diameter of the window
NTWOK2000	√	-	65mm (2.6in)
NTWOK3000	-	√	65mm (2.6in)

TECHNICAL DRAWINGS

The indicated measurements are expressed in millimetres.



NTW