

HIGH TEMPERATURE CAMERA

acqua^{tec} high temperature camera housing

Water and air cooled high temperature vision systems



ACQ07X200

ACQUATEC Series

Operational description

ACQUATEC 2.0 camera housings have been developed to allow the use of television camera in high temperature environments, as glass process, cement industry, iron&steel plant and hostile industrial environments in the main.

The entire manufacturing process is characterized by highest quality material and components, sophisticated and proven technology and a special attention to details considering the specific critical urgencies and requirements of the industrial environments.

ACQUATEC camera housing is designed to accommodate a wide range of CCD Camera and lens configuration for both fix and zoom lens applications.

ACQUATEC housings are endowed with high efficiency water cooling system allowing operation in temperatures up to 400°C (≈752°F). They also are "pressurized": an integral compressed air system supplies clean air (or appropriate gas) for cooling and particulate removal from the lens. In such a way the lens doesn't require any expensive protection glass, crystal and protection porthole. A constant supply of clean air is essential for proper camera operation and protection: GFATEC series represent an effective filtration system able to remove contaminants and to provide high quality clean air in industrial environments.

ACQUATEC 2.0 version include a special curtain air barrier to reduce the need for cleaning the window.

ACQUATEC_{ir} version allow to use also thermal cameras for ambient temperature up to 200°C.

Optional system accessories include hydraulic-pneumatic and electrical control cabinet (CABTEC series), water cooling closed circuits, wall brackets and swivel joints with horizontal and vertical adjustment.

Technical specification

General

External diameter:	129 mm
External length:	380 mm
Internal useful dimensions:	Ø 90 mm x 350 mm
Housing material:	AISI304 stainless steel
Nuts and bolts material:	AISI304 stainless steel
Gaskets:	O-ring type
Cable guides:	1 x 1/2" (cable glands/fairleads not included)
Electric connections:	not requested

Up to
400°C

InfraRed
version
available

Pressurized
Air

H₂O
Cooled

Stainless
Steel

HIGH TEMPERATURE CAMERA

Water cooling

Connection:	2 x 1/2" M BSPP
Temperatures IN:	35°C max
Flow:	from 2 l/min to 6 l/min (*1)
Pressure entry:	from 2 bar to 6 bar (*2)
Pressure in exit:	0 bar (free outlet)
Quality:	pH 6-8, suspensions max 10 mg/l

Air for cooling and cleaning lens

Connection:	1/4" M BSPP
Temperature IN:	40°C max
Consumption:	around 3 Nm³/h (*3)
Pressure entry:	from 1 bar to 2 bar (*3)
Quality:	Instrumental Air ISO 8573-1 Classe 1.7.2

ACQUATEC version for thermal cameras

Windows:	Zinc-Selenium usable area 55 mm, transparent from 7.5 to 14 um Germanium usable area 55 mm, density 3 mm
Internal useful dimensions:	75x75x350 mm (Compatible with Flir A320, NEC TS9230)
Operating Temperature:	200°C max

Available models

ACQ07X200	Camera housing ACQUATEC IP66 series made by AISI304 stainless steel
ACQ07X210	Camera housing as ACQ07X200 but only with air cooling system
ACQ07X220	Camera housing as ACQ07X200 but only with water cooling system
ACQ07X900	Camera housing ACQUATEC, air cooled, internal useful dimensions: Ø90 x 220 mm
ACQ07X901	Camera housing ACQUATEC, water and air cooled, internal useful dimensions: Ø90 x 220 mm

Available models for thermal camera

PRODUCT CODE	Air knife	Air cooling	Water cooling	Thickness (mm)	Userful D. (mm)	Material
ACQ07X8IR	√	√		2	55	Germanium
ACQ07X7IR	√	√	√	2	55	Germanium
ACQ07X6IR	√	√	√	3	55	Germanium
ACQ07X5IR	√	√	√	4	55	Zinc-Selenium
ACQ07X3IR	√	√	√	2	55	Germanium
ACQ07X2IR	√	√	√	3	55	Germanium
ACQ07X1IR	√	√	√	4	55	Zinc-Selenium

Accessories

GFA13X___	Compressed air filter unit GFATEC series endowed with pressure regulator and manometer
ACQ07G100	Swivel joint made by AISI304 stainless steel: vertical adjustment
ACQ07G004	Wall bracket made by AISI304 stainless steel

Notes

- (*1) Data are indicative and depend on process' temperature and application. 6 l/min is referred to temperature >350° C (≈660° F)
- (*2) Data are indicative and depend on process' temperature and application. 6 bar is the maximum operational pressure.
- (*3) Data are indicative and depend of process' temperature and application. For more information, please contact our engineers.