

HIGH TEMPERATURE CAMERA

sonda^{tec} high temperature camera housing

Water and air cooled high temperature vision systems



SON01X100

SONDATEC Series

Operational description

SONDATEC housing series have been developed to allow the use of television camera in high temperature environments, as glass process, cement industry, iron&steel plant and boiler. These high-temperature camera systems provide clear, crisp images of the combustion process in boilers, furnaces, kilns, incinerators and other combustion chambers. With the real-time image provided, operators and engineers can monitor the proper flow of fuel and raw materials, reduce emissions, reduce fuel consumption, speed up boiler light off, and improve safety.

Depending on the behaviour of the chemicals involved in the process, SONDATEC camera housing should be made by special stainless steels, high-resistance alloys or by using superficial protections.

SONDATEC camera housings employ triple-wall laminar flow for efficient water cooling of the camera and allow operation in temperatures up to 2200°C (≈4000°F).

SONDATEC housings 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.

SONDATEC housing is designed to be mounted either directly through the wall of a furnace. If it is requested a penetration inside the furnace, SONDATEC housing may be provided with retraction devices, INTEC series: in case of system failure, or failure of the cooling supply, the retraction device automatically removes the housing from the furnace and seals the furnace porthole.



HIGH TEMPERATURE CAMERA

Technical specification

Dimensions

Diameter:	89 mm
Length:	1000 mm
Angle of vision:	axial, max horizontal 105°
Camera:	colour or B/N CAMTEC series
Electric connections:	multipolar Connector MIL_STD or with armoured flexible tube
Protection degree:	IP66 (outside furnace)

Water cooling


Connection:	1/2" M BSPP
Temperature IN:	35°C max
Temperature OUT:	_T = 15°C max (3*)
Flow:	from 4 l/min to 16 l/min (1*)
Pressure entry:	from 2 bar to 6 bar (2*), maximum 8 bar
Quality:	pH 6-8, suspensions max 10 mg/l


Air for cooling and cleaning lens

Connection:	3/8" M BSPP (other on request)
Temperature IN:	40°C max
Consumption:	around 3 Nm ³ /h (3*)
Pressure entry:	from 1 bar to 3 bar, maximum 4 bar (3*)
Quality:	Instrumental Air ISO 8573-1 Classe 1.2.1

Available models

SON01X100 AISI316L, diameter 89 mm, 1000 mm length able for working to 2200°C, water and air cooling;

SON01X101  as SON01X100 but with connections for air & water placed on the left side (back view);

SON01X102  as SON01X100 but with connections for air & water placed on the right side (back view);

**On request available version in AISI310S.

Correlated products

CAM12X5_ CAMTEC high temperature television camera
INT02X_ INTEC retraction device

Notes

(1*) Data are indicative and depend on process' temperature and application. 16 l/min is referred to temperature >2000°C (3650°F)

(2*) Data are indicative and depend on process' temperature and application. 6 bar is referred to application with positive inclination of the housing relative to horizontal plane.

(3*) Data are indicative and depend of process' temperature and application. For more informations, please contact our engineers.

The "T TELEA" brand and "T" logo are registered trademark of Telea Tecnovision S.r.l.
Specifications may be subject to change for improvement without prior notice.



Head Office and Factory:
Telea Tecnovision Srl
Italy
tel. +39 02 9952517
fax. + 39 02 40700322
telea@telea.com
www.telea.com