



# INDUSTRIAL CCTV SYSTEMS

CATALOG MARCH 2019 REV.00

HIGH TEMPERATURE CAMERA SYSTEMS - FURNACE CAMERAS - WATER & AIR COOLED CAMERA HOUSING





# INDUSTRIAL CCTV SYSTEMS

## ▶ HIGH TEMPERATURE CAMERA SYSTEMS UP TO 2200°C

Page 2 - Cameras for high temperature video systems - IP type - CAMTEC

Page 5 - Cameras for high temperature video systems - Analog type - CAMTEC

Page 7 - High temperature vision systems - SONDATEC

## ▶ HIGH TEMPERATURE CAMERA SYSTEMS UP TO 1800°C / 1600°C

Page 12 - Portable high temperature vision systems - SONDATEC 'S'

Page 14 - Integrated air cooled vision systems - SONDATEC 'P'

## ▶ HIGH TEMPERATURE CAMERA SYSTEMS UP TO 400°C

Page 16 - Air & water cooled pressurized camera housing - ACQUATEC

## ▶ HIGH TEMPERATURE CAMERA SYSTEMS UP TO 250°C / 90°C

Page 20 - Air cooled pressurized camera housing - SONDATEC 'L'

Page 22 - Air cooled pressurized camera housing - SONDATEC 'H' & AIRTEC

## ▶ PROTECTION DEVICES & CONTROL CABINETS

Page 25 - Protection devices fixed type - OUTEK

Page 27 - Protection devices with retractable system - INTEK

Page 30 - Control cabinet - CABTEC

## ▶ ACCESSORIES

Page 38 - Connection kit - KITEK

# HIGH TEMPERATURE CAMERA SYSTEMS UP TO 2200°C

► HIGH TEMPERATURE CAMERA SYSTEMS UP TO 2200°C

PROTECTION DEVICES\*

cam<sup>tec</sup>

sonda<sup>tec</sup>

ou<sup>tec</sup>

in<sup>tec</sup>

cab<sup>tec</sup>\*



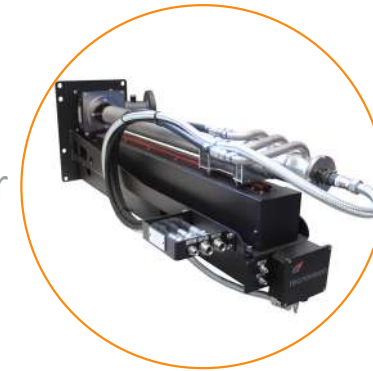
+



+



or



+



\*Depending of the application may be not required.

HIGH TEMPERATURE CAMERA SYSTEMS UP TO 2200°C

# HIGH TEMPERATURE CAMERA SYSTEMS UP TO 2200°C

## ► HIGH TEMPERATURE CAMERA SYSTEMS UP TO 2200°C

Product code configuration table

**camtec**

1 2 X

1 2 X A B C D

Easy fit  
all in one device



Optical lens with  
aperture  
<3 mm diameter



MIL Std. multipolar connector

Camera sensor with special  
feature for high contrasts  
and strong radiation

A	Length [mm]
1	1200
2	3000
3	300
5	1000
6	1600
7	700
9	900
0	Integrated code**

\*\* Ref. table "Integrated cameras"

B	Output signal / Type of sleeve
4	HD SDI type for Sondatec 2.0
5	HD SDI type for Sondatec 1.0
6	for Sondatec 1.0
7	for Sondatec 2.0
A	IP Sondatec 1.0
B	low lux 2.0
C	low lux 1.0
D	IP Sondatec 2.0
E	low lux 1.0 NTSC
F	IP Sondatec 1.0 (Bosch)
G	Sondatec "G"
H	Sondatec "H"
L	Sondatec "L"
M	CVBS type for Sondatec 1.0*
N	IP Sondatec 2.0 with Coax Transceiver#
O	for IR camera (With Sondatec 1.0)
J	IP Sondatec 1.0 with Coax Transceiver
P	Sondatec "P"
Q	Sondatec 01X1B0
S	Sondatec "S"

\*New model interchangeable with previous CAM12X-6--, CAM12X-C--, CAM12X-E--.

#Spare part for CAM12X-7--, except L=300mm.

C	Lens (focal / inclination)
0	3,6 - 18 mm
1	6 mm
2	4 mm
3	2,8 mm
4	25 mm
5	10 mm
6	10 - 50 mm
7	3,7 mm
8	3,7 mm / 90°
9	8 mm / 90°
A	3,3 mm
B	3,3 mm / 45°
C	3,3 mm / 60°; fov: up/bottom
D	3,3 mm / 60°; fov: left/right
E	3,6 - 18 mm for AIR cooled type
H	41 mm
L	7.7 mm
M	18.7 mm
N	41.5 mm
O	10.5 mm
Q	16 mm
R	25 mm
S	50 mm
T	75 mm
X	no lens

D	Option
/	Thermostat
T	Temp. Sensor (PT100)
S	Temp. Sensor (4-20 mA)**
E	Special version for EAF applications
F	as model "E" + Temp. Sensor (PT100)
G	as model "E" + Temp. Sensor (4-20 mA)
N	M20 AISI316L (No Temp. Sens.)

\*\* "S-option" and "G-option" are not available with version: L= 300 mm.

E	Power Supply
P	PoE

When cameras require PoE power supply, it will be added a "P" at the end of the code.

## CAMERAS FOR HIGH TEMPERATURE VIDEO SYSTEMS



### CAM12X3A0T



Industrial IP camera with ADJUSTABLE high temperature lens 3,6-18mm (diagonal angle: 78°-18°, H: 72°-16°, V: 44°-9°) to be used inside SONDATEC 1.0. L=300mm. 1/3" CMOS sensor with Full HD 1920x1080 pixel resolution @30fps. Min. illumination: 0.65Lux (Color), 0.15Lux (Day/Night). Removable IR cut filter for low light application also. Configuration through web browser and PC (not included). Triple compression: MJPEG, MPEG-4, H.264. Power 12/24Vdc or PoE (Power Over Ethernet IEEE 802.3af Class2), 3.2W consumption. Complete with temperature sensor (PT100). PRICE INCLUDE ASSEMBLING, SETTING AND CUSTOM CONFIGURATION.

### CAM12X3A0E

Industrial IP camera "E" series for EAF applications with ADJUSTABLE high temperature lens 3,6-18mm (diagonal angle: 78°-18°, H: 72°-16°, V: 44°-9°) to be used inside SONDATEC 1.0. L=300mm. 1/3" CMOS sensor with Full HD 1920x1080 pixel resolution @30fps. Min. illumination: 0.65Lux (Color), 0.15Lux (Day/Night). Removable IR cut filter for low light application also. Configuration through web browser and PC (not included). Triple compression: MJPEG, MPEG-4, H.264. Power 12/24Vdc or PoE (Power Over Ethernet IEEE 802.3af Class2), 3.2W consumption. Complete with temperature sensor. PRICE INCLUDE ASSEMBLING, SETTING AND CUSTOM CONFIGURATION.

### CAM12X3A1

Industrial IP camera with high temperature lens 6mm (diagonal angle: 53°, H: 47°, V:27°) to be used inside SONDATEC 1.0, L=300mm. Overtemperature alarm switch included. Other specification as CAM12X3A0T.

### CAM12X3A1T

Industrial IP camera as CAM12X3A1, complete with temperature sensor (Pt100).

### CAM12X3A2



Industrial IP camera supplied with assembled high temperature lens 4mm (diagonal angle: 74°, H: 66°, V: 40°), to be used with SONDATEC 1.0, L=300mm. Other specification as CAM12X3A1.

### CAM12X3A2T

Industrial IP camera as CAM12X3A2, complete with temperature sensor (Pt100).

### CAM12X3A3T

IP industrial camera supplied with assembled high temperature lens 2,8mm (diagonal angle: 94°, H: 86°, V: 55°), complete with temperature sensor (Pt100). Other specification as CAM12X3A1.



### CAM12X3A6F

Industrial IP camera "E" series for EAF applications with ADJUSTABLE high temperature lens 10-50mm (diagonal angle: 33°-6°, H: 29°-6°, V: 16°-3°) with a frontal lens resistant up to T=1000°C x 10 minutes in the absence of cooling system, to be used with SONDATEC 1.0, L=300mm. 1/3" CMOS sensor with Full HD 1920x1080 pixel resolution @30fps. Min. illumination: 0.65Lux (Color), 0.15Lux (Day/Night). Removable IR cut filter for low light application also. Configuration through web browser and PC (not included). Triple compression: MJPEG, MPEG-4, H.264. Power 12/24Vdc or PoE (Power Over Ethernet IEEE 802.3af Class2), 3.2W consumption. Complete with temperature sensor (PT100). PRICE INCLUDE ASSEMBLING, SETTING AND CUSTOM CONFIGURATION.



### CAM12X7A0T



Industrial IP camera with ADJUSTABLE high temperature lens 3,6-18mm (diagonal angle: 78°-18°, H: 72°-16°, V: 44°-9°) to be used inside SONDATEC 1.0. L=700mm. Other specification as CAM12X3A0T.

### CAM12X7A0S

Industrial IP camera as CAM12X7A0T, complete with temperature sensor (4-20mA).

### CAM12X7A0F

Industrial IP camera "E" series for EAF applications with ADJUSTABLE high temperature lens 3,6-18mm (diagonal angle: 78°-18°, H: 72°-16°, V: 44°-9°), L=700mm. Power supply: 24Vdc. Other specification as CAM12X7A0T.

### CAM12X7A1S

Industrial IP camera with high temperature lens 6mm (diagonal angle: 53°, H: 47°, V: 27°). Other specification as CAM12X7A0S.

### CAM12X7A2S

Industrial IP camera with high temperature lens 4mm (diagonal angle: 74°, H: 66°, V: 40°). Other specification as CAM12X7A0S.

### CAM12X7A3S

Industrial IP camera with high temperature lens 2,8mm (diagonal angle: 94°, H: 86°, V: 55°). Other specification as CAM12X7A0S.

### CAM12X7A6E

Industrial IP camera "E" series for EAF applications with ADJUSTABLE high temperature lens 10-50mm (diagonal angle: 33°-6°; H: 29°-6°, V: 16°-3°). Other specification as CAM12X3A0E.



### CAM12X3D2T

Industrial IP camera with high temperature lens 4mm (diagonal angle: 74°, H: 66°, V: 40°) to be used inside SONDATEC 2.0. L=300mm. 1/3" CMOS sensor with Full HD 1920x1080 pixel resolution @30fps. Min. illumination: 0.65Lux (Color), 0.15Lux (Day/Night). Removable IR cut filter for low light application also. Configuration through web browser and PC (not included). Triple compression: MJPEG, MPEG-4, H.264. Power 12/24Vdc or PoE (Power Over Ethernet IEEE 802.3af Class2), 3.2W consumption. Complete with temperature sensor Pt100. PRICE INCLUDE ASSEMBLING, SETTING AND CUSTOM CONFIGURATION.



### CAM12X7D3S

Industrial IP camera with high temperature lens 2,8mm (diagonal angle: 94°, H: 86°, V: 55°) to be used inside SONDATEC 2.0. L=700mm. Complete with temperature sensor 4-20mA. Other features as CAM12X3D2T.



### CAM12X1D0T

Industrial IP camera with ADJUSTABLE high temperature lens 3,6-18mm (diagonal angle of view 78°-18° (H67°-15° / V53°-11°) to be used inside SONDATEC 2.0 length 1200mm. to be used inside SONDATEC 2.0 length 1200mm. 1/3" CMOS sensor with Full HD 1920x1080 pixel resolution @30fps. Min. illumination: 0.65Lux (Color), 0.15Lux (Day/Night). Removable IR cut filter for low light application also. Configuration through web browser and PC (not included). Triple compression: MJPEG, MPEG-4, H.264. Power 12/24Vdc or PoE (Power Over Ethernet IEEE 802.3af Class2), 3.2W consumption. Provided with temperature sensor (Pt100) PRICE INCLUDE ASSEMBLING; SETTING AND CUSTOM CONFIGURATION.



### CAM12X1D0S

Industrial IP camera with ADJUSTABLE high temperature lens 3,6-18mm (diagonal angle of view 78°-18° (H67°-15° / V53°-11°) to be used inside SONDATEC 2.0 length 1200mm. to be used inside SONDATEC 2.0 length 1200mm. 1/3" CMOS sensor with Full HD 1920x1080 pixel resolution @30fps. Min. illumination: 0.65Lux (Color), 0.15Lux (Day/Night). Removable IR cut filter for low light application also. Configuration through web browser and PC (not included). Triple compression: MJPEG, MPEG-4, H.264. Power 12/24Vdc or PoE (Power Over Ethernet IEEE 802.3af Class2), 3.2W consumption. Provided with temperature sensor (Pt100: 4-20mA) PRICE INCLUDE ASSEMBLING; SETTING AND CUSTOM CONFIGURATION.

### CAM12X1D2S

Industrial IP camera with high temperature lens 4mm (diagonal angle: 74°, H: 66°, V: 40°). Other features as CAM12X1D0S.

### CAM12X1D3S

Industrial IP camera with high temperature lens 2,8mm (diagonal angle: 94°, H: 86°, V: 55°). Other features as CAM12X1D0S.

### CAM12X1DC0

Industrial IP camera with high temperature lens diagonal angle of view of 85° (H: 76° - V: 48°) to be used inside SONDATEC 2.0 length 1200mm. 1/3" CMOS sensor with Full HD 1920x1080 pixel resolution @30fps. Min. illumination: 0.65Lux (Color), 0.15Lux (Day/Night). Removable IR cut filter for low light application also. Configuration through web browser and PC (not included). Triple compression: MJPEG, MPEG-4, H.264. Power 12/24Vdc or PoE (Power Over Ethernet IEEE 802.3af Class2), 3.2W consumption. PRICE INCLUDE ASSEMBLING; SETTING AND CUSTOM CONFIGURATION.



### CAM12X1DCS

Industrial IP camera with high temperature lens diagonal angle of view of 85° (H: 76° - V: 48°) to be used inside SONDATEC 2.0 length 1200mm. 1/3" CMOS sensor with Full HD 1920x1080 pixel resolution @30fps. Min. illumination: 0.65Lux (Color), 0.15Lux (Day/Night). Removable IR cut filter for low light application also. Configuration through web browser and PC (not included). Triple compression: MJPEG, MPEG-4, H.264. Power 12/24Vdc or PoE (Power Over Ethernet IEEE 802.3af Class2), 3.2W consumption. Provided with temperature sensor (Pt100: 4-20mA) PRICE INCLUDE ASSEMBLING; SETTING AND CUSTOM CONFIGURATION.

### CAM12X1DDS

Industrial IP camera with high temperature lens diagonal angle of view of 85° (H: 76° - V: 48°) field of vision left/right. Other features as CAM12X1DCS.

### CAM12X5D1T

Industrial IP camera with high temperature lens straight vision diagonal angle of view 53° to be used inside SONDATEC 2.0 length 1000mm. 1/3" CMOS sensor with Full HD 1920x1080 pixel resolution @30fps. Min. illumination: 0.65Lux (Color), 0.15Lux (Day/Night). Removable IR cut filter for low light application also. Configuration through web browser and PC (not included). Triple compression: MJPEG, MPEG-4, H.264. Power 12/24Vdc or PoE (Power Over Ethernet IEEE 802.3af Class2), 3.2W consumption. Overtemperature sensor on board. PRICE INCLUDE ASSEMBLING; SETTING AND CUSTOM CONFIGURATION.

### CAM12X5D2T

Industrial IP camera with high temperature lens straight vision diagonal angle of view 74°. Other specifications as CAM12X5D1T.

### CAM12X5D2S

Industrial camera as CAM12X5D2T, complete with temperature sensor (4-20mA).



**CAM12X3M0**



Industrial camera with ADJUSTABLE high temperature lens 3.6-18mm (angles H: 60°-11°; V: 42°-9°) designed for SONDATEC 1.0 housing, length=300mm. 1/3" CMOS sensor, 2.1MP, high resolution 1000HTVL, Wide Dynamic Range specified for applications with high contrast and ICR function for use in Low Light conditions. Minimum illumination 0.05Lux @AGC on/Sens-up off. Video output: CVBS (4:3 ratio). Configuration of parameters through portable monitor (optional), RS-485 protocol. Standard PAL-NTSC selectable. Power supply: 12Vdc. Complete with thermostat. THE PRICE INCLUDES ASSEMBLING, SETTING AND SPECIAL PROGRAMMING OF THE CAMERA.

**CAM12X3M0T**

Industrial camera as CAM12X3M0, complete with temperature sensor (Pt100).

**CAM12X3M0E**

Industrial camera "E" series for EAF applications with ADJUSTABLE high temperature lens from 3.6-18mm (angles H: 60°-11°; V: 42°-9°). L=300mm. Power supply: 24Vdc. Other specification as CAM12X3M0.

**CAM12X3M1**

Industrial camera with high temperature lens 6mm (angles H: 32°; V: 24°). Other specification as for CAM12X3M0.

**CAM12X3M1T**

Industrial camera as CAM12X3M1, complete with temperature sensor (Pt100).

**CAM12X3M2**

Industrial camera with high temperature lens 4mm (angles H: 48°; V: 35°). Other specification as for CAM12X3M0.

**CAM12X3M2T**

Industrial camera as CAM12X3M2, complete with temperature sensor (Pt100).

**CAM12X3M2E**



Industrial camera "E" series for EAF applications with high temperature lens 4mm (angles H: 48°; V: 35°). L=300mm. Power supply: 24Vdc. Other specification as CAM12X3M2.

**CAM12X3M3**

Industrial camera with high temperature lens 2,8mm (angles H: 62°; V: 50°). Other specification as for CAM12X3M0.

**CAM12X3M3T**

Industrial camera as CAM12X3M3, complete with temperature sensor (Pt100).

**CAM12X3M6E**

Industrial camera "E" series for EAF applications with ADJUSTABLE high temperature lens 10-50mm (angles H:21°-4°; V:16°-3°). L=300mm. Power supply: 24Vdc. Other specification as CAM12X3M0.



**CAM12X7M0**



Industrial camera with ADJUSTABLE high temperature lens 3.6-18mm (angles H:60°-11°, V:42°-9°) designed for SONDATEC 1.0 housing, length=700mm. 1/3" CMOS sensor, 2.1MP, high resolution 1000HTVL, Wide Dynamic Range specified for applications with high contrast and ICR function for use in Low Light conditions. Minimum illumination 0.05Lux @AGC on/Sens-up off. Other specification as CAM12X3M0.

**CAM12X7M0T**

Industrial camera as CAM12X7M0, complete with temperature sensor (Pt100).

**CAM12X7M0S**

Industrial camera as CAM12X7M0, complete with temperature sensor (4-20mA).

**CAM12X7M1S**

Industrial camera with high temperature lens 6mm (angles H: 32°; V: 24°), with temperature sensor (4-20mA). Other specification as for CAM12X7M0.

**CAM12X7M2S**

Industrial camera with high temperature lens 4mm (angles H: 48°; V: 35°), with temperature sensor (4-20mA). Other specification as for CAM12X7M0.

**CAM12X7M3**

Industrial camera with high temperature lens 2.8mm (angles H: 62°; V: 50°). Other specification as for CAM12X7M0.

**CAM12X7M3T**

Industrial camera as CAM12X7M3, complete with temperature sensor (Pt100).

**CAM12X7M3S**

Industrial camera as CAM12X7M3, complete with temperature sensor (4-20mA).

**Tobx90°-6mm**



Spare lens for CAM12X923 camera, with 60° diagonal angle of view.

**TOBXP0286MK**



High temperature lens Pin-hole type f=2,8 mm for 1/3" CCD cameras.

**TOBXP0420MK**



High temperature lens Pin-hole type f=4 mm for 1/3" CCD cameras.

**TOBXP0620MK**



High temperature lens Pin-hole type f=6 mm for 1/3" CCD cameras.

**TOBXP1028FK**



High temperature lens Pin-hole type f=10 mm for 1/3" CCD cameras.

**TOBXP2562FK**



High temperature lens Pin-hole type f=25 mm for 1/3" CCD cameras.

**TOBXP1050**



High temperature lens Pin-hole type f=10-50 mm for 1/3" CCD cameras. CS mount.

**TOBXP3618B**

**CAM12F001**

High temperature lens Pin-hole type f=3,6-18 mm for 1/3" CCD cameras. Diagonal angle from 78° to 18°. Manufactured in Stainless Steel with quartz lenses. CS mount.

**CAM12F002**



Optic filter BG18, thickness 1mm, for infrared rays lens 4mm, 6mm, 10mm.

**CAM12F101**

Optic filter BG18, for infrared rays lens 2,8mm.

**CAM12F102**

Optic filter NEUTRAL DENSITY NG9 for high brightness lens 4mm, 6mm, 10mm.

**CAM12F103**

Optic filter NEUTRAL DENSITY NG9 for high brightness lens 2,8mm.

**CAM12F104**

Optic filter NEUTRAL DENSITY NG9 for high brightness for VARIFOCAL PIN-HOLE LENSES.

**CAM12F106**

Optic filter NEUTRAL DENSITY BG18 for high brightness for VARIFOCAL PIN-HOLE LENSES. Diameter 16 mm, thickness 1 mm.

**SC-7PM**

Frontal glass Heat resistant and Heat reflecting Diam. 22 mm sp.1 mm.



Touch screen 7" portable monitor with DVR function for IP, CVBS signals. Multifunction tester, suitable for the calibration, control and focusing of a camera connected directly to the apparatus. Commands for RS-485 serial lines with PELCO-D, PELCO-P, Samsung, Panasonic, Lilin, Yann etc protocol. Video recording, snapshot, saving and playback. Equipped with touch screen 7" display IPS Full HD 1280x800 pixels. Integrated Lithium battery 7.4V 5000mAh. LAN 10/100Mbps RJ45 - IP camera and PoE. Supports Wifi and Bluetooth connections. Supports PTZ (ONVIF) management, OSD menu. External power supply: 12Vdc 2A. Dimensions: 231x172x52 mm. Operating temperature: -10°C/+50°C.

**KIT CAM12X-M--**

CAM12X-M programming kit consisting of L=1,5m cable with MIL-STD female connector on camera side and MIL-STD male connector on JBX/ Cabtec side with box for video signal pick-up and RS485 signal. Supplied with RG59 coaxial cable headed BNC-BNC and RS485 cable L=2m.





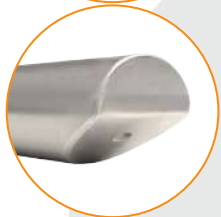
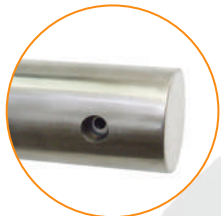
# HIGH TEMPERATURE CAMERA SYSTEMS UP TO 2200°C

## ► HIGH TEMPERATURE CAMERA SYSTEMS UP TO 2200°C

Product code configuration table

sonda<sup>tec</sup>

0	1	X	A	Length [mm]	B	C
				1 = 1000 / 1200	Different versions depending on diagonal angle of view, material, air & water connections.	
				3 = 300		
				4 = 4000		
				7 = 700		



Different angle of view available

Water cooling circuit made with three jackets

Air pressurized for protection and lens cleaning

Housings made with different types of Stainless Steel

- Water & Air cooled pressurized housings
- Employment of industrial parts
- Up to 2200°C

HIGH TEMPERATURE VISION SYSTEMS

**SON01X301**



Housing SONDATEC 1.0 for cameras CAMTEC series, designed for continuous operation with high temperatures up to 2200°C, water and air compressed cooled. Axial vision, for lens up to 105° diagonal angle of view. Made by Stainless Steel AISI316L, diameter 101,6 mm, length 350 mm.

**SON01X302**



Housing SONDATEC completed with flange for coupling to the VOD. Suitable for cameras CAMTEC series, designed for continuous operation with high temperatures up to 2200°C, water and air compressed cooled. Axial vision, it allows the application of lens with diagonal angles of view up to 105°. Made by Stainless Steel AISI316L, diameter 101,6 mm, length 350 mm. Completed with rear cover with multipolar connector MIL std. It includes internal wiring and bracket for camera.

**SON01X310**



Housing SONDATECplus, designed for continuous operation with high temperatures up to 2200°C, water and air compressed cooled. Axial vision, for lens up to 32° diagonal angle of view. Made by Stainless Steel AISI316L, diameter 101,6 mm, length 300 mm. Complete with bottom cover for KITTEC series tube and multi-polar connector MIL std. Air and water fitting as 1/2" gas M-BSPP.

**SON01X330**



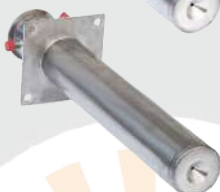
Housing 2.0 for cameras CAMTEC series designed for continuous operation with high temperatures up to 1500°C, water and air compressed cooled. Axial vision, for lens up to 105° diagonal angle of view. Made by Stainless Steel AISI316L, diameter 89 mm, length 350 mm. Water fitting as 1/2" M-BSPP, air 3/8" M-BSPP.

**SON01X701**



TV Camera housing SONDATEC 1.0 for cameras CAMTEC series, designed for continuous operation with high temperatures up to 2200°C, water and air cooled. Straight vision allows to use up to 105° diagonal angle of view lenses. Made by Stainless Steel AISI316L, diameter 101,6 mm, length 700 mm. Completed with back cover suitable for KITTEC connection series. Air inlet 1/4" M-BSPP, water inlet/outlet 1/2" M-BSPP.

**SON01X702**



TV Camera housing SONDATEC 1.0 VOD for cameras CAMTEC series, designed for continuous operation with high temperatures up to 2200°C, water and air cooled. Straight vision allows to use up to 105° diagonal angle of view lenses. Made by Stainless Steel AISI316L, diameter 101,6 mm, length 700 mm. Complete with back cover suitable for KITTEC connection series. Air inlet 1/4" M-BSPP, water inlet/outlet 1/2" M-BSPP.

**SON01X703**



SONDATEC 2.0 cooled housing for our high temperature camera series CAMTEC. Designed to work up to 2200 °C, cooling with water and compressed air. Axial vision. Suitable for lenses with diagonal angle of view up to 105°. Made in Stainless steel INOX AISI316L. Diameter: 89 mm, length: 700 mm.

**SON01X704**



TV Camera housing SONDATEC 1.0 VOD for CAMTEC cameras, designed for continuous operation with high temperature up to 2200°C (water and air cooled). Straight vision allows to use up to 105° diagonal angle of view lenses. Made by stainless steel AISI316L, Diameter: 101,6mm, Length: 700mm. Supplied with flange DN300, thickness 20mm AISI304. Air inlet 1/4" M-BSPP, water inlet/outlet 1/2" M-BSPP.

**SON01X711**



TV Camera housing SONDATEC for cameras CAMTEC series, designed for continuous operation with high temperatures up to 2200°C, water and air cooled. Straight vision allows to use up to 105° diagonal angle of view lenses. Made by Stainless Steel HASTELLOY C276, diameter 101,6 mm, length 700 mm. With back cover completed with multi-polar connector MIL std. Air inlet 1/4" M-BSPP, water inlet/outlet 1/2" M-BSPP.

**SON01X100**



Housing SONDATEC 2.0 for cameras CAMTEC series, designed for continuous operation with high temperatures up to 2200°C, water and air cooled. Axial vision, it allows to use lens up to 105° diagonal angle of view. Made by Stainless Steel AISI310, diameter 89 mm, length 1000 mm. Water fitting as 1/2" M-BSPP, flaring 60°. Air 3/8" M-BSPP.

**SON01X101**



Housing SONDATEC 2.0 realized as SON01X100, but with connections for air and water placed on the left side (back view), suitable to be used with INTEC series.

**SON01X102**



Housing SONDATEC 2.0 realized as SON01X100, but with connections for air and water placed on the right side (back view), suitable to be used with INTEC series.

**SON01X120**



Housing SONDATEC 2.0 for camera CAMTEC for working up to 2200°C, water and air compressed cooled. Axial vision, for lens up to 105° diagonal angle of view. Made by Stainless Steel AISI310, diameter 89 mm, length 1200 mm. Water fitting as 1/2" M-BSPP, air 3/8" M-BSPP.

**SON01X121**



Housing SONDATEC 2.0 realized as SON01X120, but with connections for air and water placed on the left side (back view), suitable to be used with INTEC series.

**SON01X122**



Housing SONDATEC 2.0 realized as SON01X120, but with connections for air and water placed on the right side (back view), suitable to be used with INTEC series.

**SON01X125**



Housing SONDATEC 2.0 for CAMTEC series camera. Able for working up to 1600°C, ONLY AIR COOLED using vortex tube technologies. Axial vision, for lens up to 105° diagonal angle of view. External tube made by Stainless Steel AISI310, diameter 89 mm, length 1200 mm. Air connection 2x1/2" M-BSPP, 1x3/8" M-BSPP.

**SON01X145**

Housing SONDATEC 2.0 for cameras CAM12X17B series, designed for continuous operation with high temperatures up to 2200°C, water and air cooled. Angle of view 45°, it allows to use lens up to 85° diagonal angle of view. Made by Stainless Steel AISI310, diameter 89 mm, length 1200 mm. Water fitting 1/2" M-BSPP, flared 60°. Air 3/8" M-BSPP.

**SON01X160**



Housing SONDATEC 2.0 for cameras CAM12X17C series for working up to 2200°C, water and air compressed cooled. Axial vision for lens 85° diagonal angle of view. Made by Stainless Steel AISI310, diameter 89 mm, length 1200 mm. Water fitting as 1/2" M-BSPP, air 3/8" M-BSPP.

**SON01X161**



Housing SONDATEC 2.0 for cameras CAM12X17C series, designed for continuous operation with high temperatures up to 2200°C, water and air cooled. Angle of Sonda inclination 120°, it allows to use lens up to 85° diagonal angle of view. Field of vision: BOTTOM. Made by Stainless Steel AISI310, diameter 89 mm, length 1200 mm. Connections for air and water placed on the LEFT (back view). Water fitting 1/2" M-BSPP, flared 60°. Air 3/8" M-BSPP.

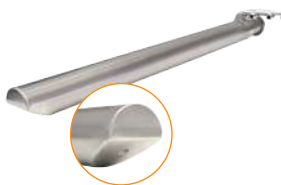
**SON01X162**



Housing SONDATEC 2.0 for cameras CAM12X17C series. Field of vision: BOTTOM. Connections for air and water placed on the RIGHT side (back view). Other features as SON01X161.



### SON01X163



Housing SONDATEC 2.0 for cameras CAM12X17C and CAM12X17CT, designed for continuous operation with high temperatures up to 2200°C, water and air cooled. Angle of Sonda inclination: 120°. Field of vision: LEFT. Made in Stainless Steel AISI310, diameter 89 mm, length 1200 mm (other on request). Connections for air and water placed on the LEFT side (back view). Water fitting 1/2" M-BSPP. Air 3/8" M-BSPP.

### SON01X164



Housing SONDATEC 2.0 for cameras CAM12X17C and CAM12X17CT. Field of vision: LEFT. Connections for air and water placed on the RIGHT side (back view). Other features as SON01X164.

### SON01X165



Housing SONDATEC 2.0 for cameras CAM12X17C and CAM12X17CT, designed for continuous operation with high temperatures up to 2200°C, water and air cooled. Angle of Sonda inclination: 120°. Field of vision: RIGHT. Made in Stainless Steel AISI310, diameter 89 mm, length 1200 mm (other on request). Connections for air and water placed on the LEFT side (back view). Water fitting 1/2" M-BSPP. Air 3/8" M-BSPP.

### SON01X166



Housing SONDATEC 2.0 for cameras CAM12X17C and CAM12X17CT. Field of vision: RIGHT. Connections for air and water placed on the RIGHT side (back view). Other features as SON01X165.

### SON01X167

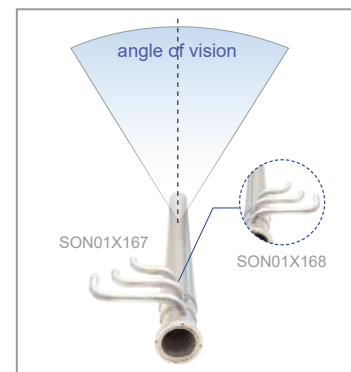
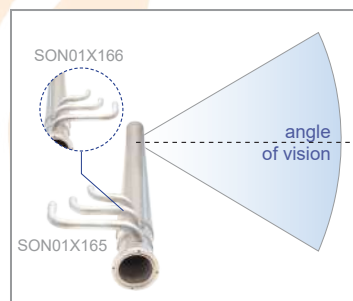
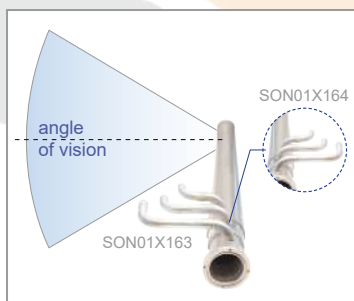
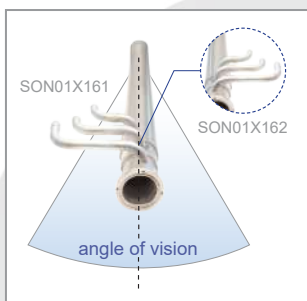


Housing SONDATEC 2.0 for cameras CAM12X17C and CAM12X17CT, designed for continuous operation with high temperatures up to 2200°C, water and air cooled. Angle of Sonda inclination 120°. Field of vision: UP. Made in Stainless Steel AISI310, diameter 89 mm, length 1200 mm (other on request). Connections for air and water placed on the LEFT side (back view). Water fitting 1/2" M-BSPP, flared 60°. Air 3/8" M-BSPP.

### SON01X168



Housing SONDATEC 2.0 for cameras CAM12X17C and CAM12X17CT. Field of vision: UP. Connections for air and water placed on the RIGHT side (back view). Other features as SON01X167.



### SON01X190

Housing SONDATEC 2.0 for cameras CAMTEC90 series, designed for continuous operation with high temperatures up to 2200°C, water and air cooled. Angle of view 90°. Made by Stainless Steel AISI310, diameter 89 mm (VERSION 2.0), length 1200 mm. Completed with back cover suitable for KITTEC connection series. Air fitting 1/2" F-BSPP, water 1/2" M-BSPP, flared 60°. Different lengths available on request.

**SON05X400**



Vision system for TOP-ROLL composed by "TRIPLE JACKET SHIRT" water circuit, length 4000 mm (others on request), camera module with high resolution B/W, high temperatures lens with diagonal angle of view 53° and diagonal vision of 90°. Outer sheath made of INOX AISI316L, diameter 89 mm. Connection to electrical signal through multi-polar connector MIL-STD. The product will be supplied fully assembled and tested (leak testing under pressure 10bar/24hour).

**SON05X411**

Vision system for TOP-ROLL composed by "TRIPLE JACKET SHIRT" water circuit, length 4000 mm (others on request), camera module with high resolution B/W, high temperatures lens with diagonal angle of view 53° and diagonal vision of 90°. Outer sheath made of INOX AISI316L, diameter 89 mm, with insulation made in Stainless Steel AISI304L, external diameter 101,6 mm. Connection to electrical signal through multi-polar connector MIL-STD. The product will be supplied fully assembled and tested (leak testing under pressure 10bar/24hour).

**SON05X412**



High temperature camera housing SONDATECpro series realized with "TRIPLE JACKET SHIRT" water circuit, length 4000 mm (others on request), designed for camera module CAMtec 12X series with diagonal angle of view 90°. Outer sheath made of AISI310S steel, diameter 89 mm. Complete with external thermal insulation realized with Ceramic fiber textile products within an additional Stainless Steel AISI304 tube with 101,6 mm. Cooling water connection 2x1" NPT (F), Nitrogen 1x1/2" NPT (F). Back cover complete with multi-polar metal connector MIL STD. The product will be supplied fully assembled and tested (leak testing under pressure 10bar/24hour).

**SON01F005**



Support for SONDATEC, made of AISI304 Stainless Steel.

**SON01F010**



Mechanical flange for matching SONDATEC 1.0 to OUTEC. Made by Stainless Steel AISI304, diameter 101,6 mm.

**SON01F040**



Mechanical flange for matching SONDATEC 2.0 to OUTEC or SONDATEC direct to wall furnace. Made by Stainless Steel.

**SON01F070**



Vacuum flange with gasket and pressure ring complete with probe quick release mechanism, suitable for matching Sondatec 1.0 to furnace wall.

**SON01H001**



Floor mounting bracket with 3 swivel joints for 3-axis adjustment for manual SONDATEC introduction. Made with stainless steel INOX AISI304.

**NEW**

# HIGH TEMPERATURE CAMERA SYSTEMS UP TO 1800°C

## ► HIGH TEMPERATURE CAMERA SYSTEMS UP TO 1800°C

sonda<sup>tec</sup> S

0 1 X

A Length [mm]

B Series

C View / Field of vision

D Material / Connections

0 1 X A B C D

- 1 = 1000/1200
- 3 = 300
- 4 = 4000
- 6 = 1600
- 7 = 700

- S = Air & water cooling
- P = Air cooling
- G = Air cooling

Part number configurator "C"	View	Field of vision
0	Axial	-
6	Inclined 90°	bottom
7		up
8		left
9		right

Part number configurator "D"	Material	Air and water connectors placed on the: (rear view, as drawings)		
		left	right	up
0	AISI316L		•	
1	AISI316L	•		
2	AISI316L			•
3	AISI310S		•	
4	AISI310S	•		
5	AISI310S			•
H	Hastelloy C276		•	
L	Hastelloy C276	•		
U	Hastelloy C276			•

cam<sup>tec</sup> S



Inclined vision 90°



Axial vision



- Air & Water cooling system
- Small diameter = 45mm

"S" series has been developed for all applications that require a small entrance diameter. Thanks to this feature it is ideal for mobile inspections.

### PORTABLE HIGH TEMPERATURE VISION SYSTEMS



**SON01X1S0H**



## HIGH TEMPERATURE CAMERA SYSTEMS UP TO 1800°C

Camera housing SONDATEC S series for CAMTEC cameras, designed for continuous operation with high temperature up to 1800°C, water and air cooled. Axial vision, allows the use of lens with diagonal angle of view up to 68°. Made by HASTELLOY C276, air and water connection on right. Diameter: 45mm, length: 1200mm.

**SON01X1S01**

Camera housing SONDATEC S series for CAMTEC cameras, designed for continuous operation with high temperature up to 1800°C, water and air cooled. Axial vision, allows the use of lens with diagonal angle of view up to 68°. Made by Stainless Steel AISI316L, air and water connection on left. Diameter: 45mm, length: 1200mm.

**SON01X1S02**



Camera housing SONDATEC S series for CAMTEC cameras, designed for continuous operation with high temperature up to 1800°C, water and air cooled. Axial vision, allows the use of lens with diagonal angle of view up to 68°. Made by Stainless Steel AISI316L, air and water connection on the top. Diameter: 45mm, length: 1200mm.

**SON01X1S82**



Camera housing SONDATEC S series for CAMTEC cameras, designed for continuous operation with high temperature up to 1800°C, water and air cooled. Inclined vision 90°, field of vision: left. Made by stainless steel AISI316L, air and water connection on the top. Diameter: 45mm, length: 1200mm.

**SON01X1S91**

Camera housing SONDATEC S series for CAMTEC cameras, designed for continuous operation with high temperature up to 1800°C, water and air cooled. Inclined vision 90°, field of vision: right. Made by stainless steel AISI316L, air and water connection on left. Diameter: 45mm, length: 1200mm.

**SON01X2S02**

Camera housing SONDATEC S series as SON01X1S02, but with length: 2000mm.

**SON01X2S82**

Camera housing SONDATEC S series as SON01X1S82, but with length: 2000mm.

**SON01X6S01**

Camera housing SONDATEC S series as SON01X1S01, but with length: 1600mm.

**SON01X6S03**



Camera housing SONDATEC S series for CAMTEC cameras, designed for continuous operation with high temperature up to 1800°C, water and air cooled. Axial vision, allows the use of lens with diagonal angle of view up to 68°. Made by Stainless Steel AISI316L, air and water connection on opposite sides. Diameter: 45mm, length: 1600mm.

**SON01X6S82**

Camera housing SONDATEC S series as SON01X1S82, but with length: 1600mm.

## HIGH TEMPERATURE CAMERA SYSTEMS UP TO 1800°C

**CAM12X1S7T**



Industrial IP camera with high temperature lens 68° (diagonal angle) used with SONDATEC S series, axial vision. Length=1200mm. Progressive CMOS 1/4" sensor, f=3.7mm, resolution up to 1280x720 pixels @ 30fps. Configuration of parameters through web server. It requires control unit and separate power supply, available in local JBX or CABTEC. Complete with temperature sensor (Pt100). Supplied with bracket and flange integrated with air cooling system. THE PRICE INCLUDES ASSEMBLING, SETTING AND SPECIAL PROGRAMMING OF THE CAMERA.

**CAM12X1S8**

Industrial IP camera with high temperature lens 68° (diagonal angle) used with SONDATEC S series, inclined vision 90°. Length=1200mm. Progressive CMOS 1/4" sensor, f=3.7mm, resolution up to 1280x720 pixels @ 30fps. Ultra Wide Dynamic Range specified for applications with high contrast, and in presence of infrared wavelengths. Other features as CAM12X1S7T.

**CAM12X1S8T**

Industrial IP camera as CAM12X1S8, but equipped with temperature sensor (Pt100).

## PORTABLE HIGH TEMPERATURE VISION SYSTEMS

# HIGH TEMPERATURE CAMERA SYSTEMS UP TO 1600°C

## ► HIGH TEMPERATURE CAMERA SYSTEMS UP TO 1600°C

Product code configuration table

sonda<sup>tec</sup> P

0 1 X

A Length [mm]

B Series

C View / Field of vision

D Type of camera inside

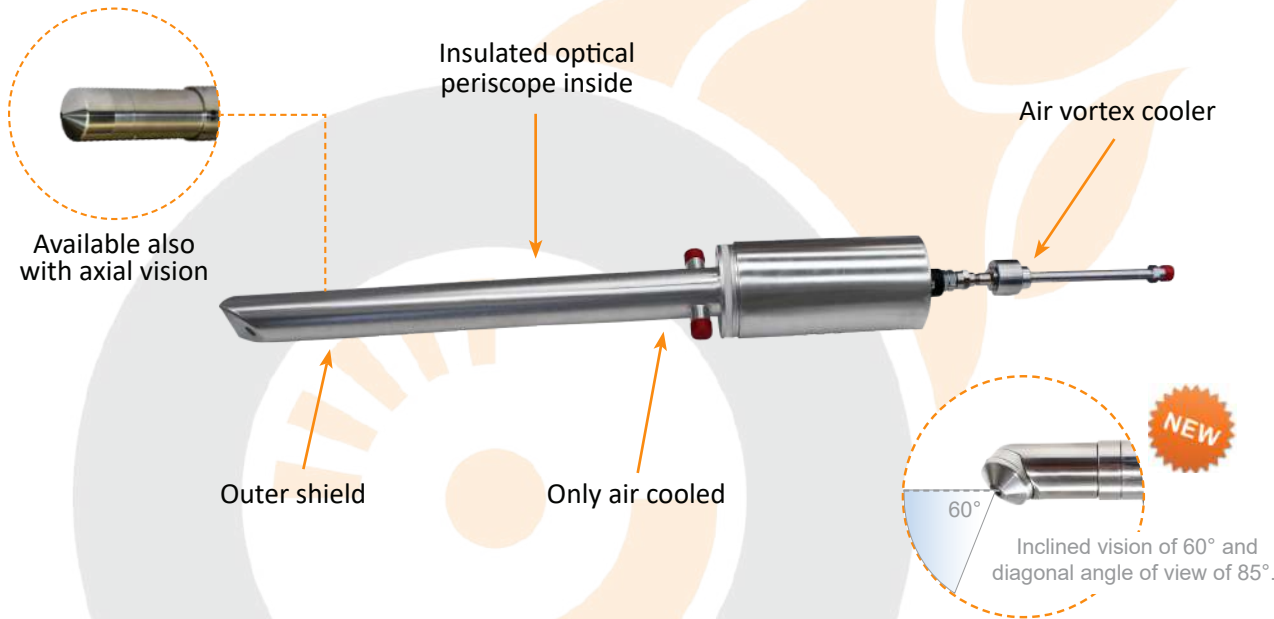
0 1 X A B C D

1 = 1000/1200
3 = 300
4 = 4000
5 = 500*
6 = 1600
7 = 700

S = Air & water cooling  
P = Air cooling  
G = Air cooling

A = Analog  
P = IP

Part number configurator "C"	View	Field of vision
0	Axial	-
A		bottom
B	Inclined	up
C	60°	left
D		right



- Double air cooling circuit
- Diameter= 50 mm

INTEGRATED AIR COOLED VISION SYSTEMS





### SON01X5PAA



SONDATEC P camera housing integrated with CAMTEC cameras, designed for continuous operation with high temperature up to 1600°C, equipped with double air cooling circuit: one for cooling and cleaning lens/camera with 1/4" M-BSPP connections, complete with vortex cooler (BP3210), and another one for external shield cooling with 2x1/2" M-BSPP connections. Inclined vision 60°, field of vision: bottom. Provided with insulated optical periscope. 1.3 Mega pixel sensor, high resolution >800 lines, Ultra Wide Dynamic Range specified for applications with high contrast and in presence of infrared wavelengths. Configuration of parameters through UTC keyboard (optional). Standard PAL-NTSC selectable. Power supply: 12Vdc or 24 Vac (50-60Hz). Complete with double temperature sensor (Pt100), one for each air cooling circuit. Housing realized in AISI310 stainless steel. Diameter 50mm, length of penetration 500mm.



### SON01X5PAP

SONDATEC P camera housing integrated with IP CAMTEC cameras, designed for continuous operation with high temperature up to 1600°C, equipped with double air cooling circuit: one for cooling and cleaning lens/camera with 1/4" M-BSPP connections, complete with vortex cooler (BP3210), and another one for external shield cooling with 2x1/2" M-BSPP connections. Inclined vision 60°, field of vision: bottom. 1/3 progressive scan color CCD sensor, with 1280x960 pixel. Frame rate up to 30fps @ max resolution. Image settings available right for high contrast and brightness background as furnace, boiler, high temperature process. Removable IR cut filter for low light application also. Configuration through web browser and PC (not included). Power 12Vdc or PoE (Power Over Ethernet IEEE 802.3af Class2). Complete with double temperature sensor (Pt100), one for each air cooling circuit. Housing realized in AISI310 stainless steel. Diameter 50mm, length of penetration 500mm.



### SON01X5P0P

SONDATEC P camera housing integrated with IP CAMTEC cameras, designed for continuous operation with high temperature up to 1600°C, equipped with double air cooling circuit: one for cooling and cleaning lens/camera with 1/4" M-BSPP connections, complete with vortex cooler (BP3210), and another one for external shield cooling with 2x1/2" M-BSPP connections. Axial vision. Equipped with insulated optical periscope. 1/3" CMOS sensor Full HD 1920x1080 @30fps. Minimum illumination: 0.65Lux (Color), 0.15Lux (Day/Night). Image settings available for high contrast and brightness background as furnace, boiler, high temperature process. Removable IR cut filter for low light application also. Configuration through web browser and PC (not included). Triple video compression MJPEG, MPEG-4, H.264. Power 12/24Vdc or PoE (Power Over Ethernet IEEE 802.3af Class2). Complete with double temperature sensor (Pt100), one for each air cooling circuit. Housing realized in AISI310 stainless steel. Diameter 50mm, length of penetration 500mm.

# HIGH TEMPERATURE CAMERA SYSTEMS UP TO 400°C

## ► HIGH TEMPERATURE CAMERA SYSTEMS UP TO 400°C

Product code configuration table

acqua<sup>tec</sup>

0	7	X	A	B	C
			Front glass / Size	Cooling	Versions
			1: Movable Glass (IP43)	0: H2O + AIR	<b>PROGRESSIVE VERSION:</b>  Is identified with progressive numbering 1, 2, 3, 4, 5.. for changes to the original project classified with 0
			2: Fixed Glass (IP66)	1: ONLY AIR	
			3: Fixed Glass / Large version	2: ONLY H2O	
			0: Integrated code	3: NO COOLING	



### AIR & WATER COOLED PRESSURIZED CAMERA HOUSING

Pressurized cooling system



Special knife air barrier for lens cleaning

Small window ideal for less internal overheating due to irradiation

- Air or Air&Water cooled pressurized housing
- Useful for Analogue, IP or Infrared camera and various instrumentation
- Up to 400°C

### AIR & WATER COOLED PRESSURIZED CAMERA HOUSING

### ACQ07X003



Integrated Full HD IP camera for industrial application with varifocal lens 2,8-12mm. 1/2.7" CMOS sensor 1920x1080 pixel. Sensitivity: 0.25Lux(color) / 0.5Lux(B/W). 76dB WDR. Multiple streaming up to 1920x1080@30ips. H.264 e M-JPEG. Special functions: Day&Night, AES, fixed shutter, White balance, Noise reduction, BLC, Defog, Privacy masking, Image mirror/flip. Protected inside ACQUATEC housing, designed for continuous operation up to 400°C. Realized in AISI304 stainless steel, with water and compressed air cooling system (Tin<35°C @1Bar - 3Nm3/h) and special air barrier which keeps the lens clean. Interconnections air circuit 1x1/4"M-BSPP sv.60° in nickel plated brass. It requires compressed air instrumentations, available with the use of GFATEC filter group (not included). Complete with mounting bracket with swivel joint and junction box IN 96-264Vac 50/60Hz made of Aluminum, IP66. Equipped with short circuit protection, interconnection kit between JBX and camera housing, consisting of power supply cable L=1,5m with galvanized steel wire braided sheath included.

### ACQ07X004

Complete industrial High Definition IP camera system with varifocal lens 5-60 mm F1.6 IR. Other characteristics as ACQ07X003.

### ACQ07X005



Integrated Low Light Full HD IP camera for industrial application with varifocal lens 2,8-12mm. 1/2.8" CMOS sensor 1920x1080 pixel (2MP). Sensitivity: 0.0069Lux(color) / 0.0008Lux(B/W). 120dB WDR. Multiple streaming up to 1920x1080@60fps. H.264 e M-JPEG. Special functions: Day&Night, AES, fixed shutter, White balance, Noise reduction, SNR, BLC, Defog, Privacy masking 8 areas, Image mirror/flip. Protected inside ACQUATEC housing, designed for continuous operation up to 400°C. Realized in AISI304 stainless steel, with water and compressed air cooling system (Tin<35°C @1Bar - 3Nm3/h) and special air barrier which keeps the lens clean. Interconnections air circuit 1x1/4"M-BSPP sv.60° in nickel plated brass. It requires compressed air instrumentations, available with the use of GFATEC filter group (not included). Complete with mounting bracket with swivel joint and junction box IN 96-264Vac 50/60Hz made of Aluminum, IP66. Equipped with short circuit protection, interconnection kit between JBX and camera housing, consisting of power supply cable L=1,5m with galvanized steel wire braided sheath included.

### ACQ07X006

Integrated Low Light Full HD IP camera for industrial application with varifocal lens 5-60mm. Other characteristics as ACQ07X005.

### ACQ07X007A



Complete industrial camera system with varifocal lens DC Auto Iris 2,8-12mm F1.4 IR. 2MP camera with progressive CMOS sensor 1/2.9" and Wise Net HD+ functionality. 1000HTVL, Full HD over coax (1920x1080p resolution @30fps). Min illumination: 0.15Lux (F1.2, 50IRE), 0.09Lux (F1.2, 30IRE), B/W: 0.015Lux (F1.2, 50IRE), 0.009Lux (F1.2, 30IRE). Video output: BNC (AHD, CVBS selectable). Day&Night, D-WDR, SSSNR4, De-Fog, Motion Detection, etc. Supplied inside ACQUATEC IP66 housing with pressurized air cooling system (Tin<35°C @1Bar - 3Nm3/h), designed for temperatures up to 90°C. Equipped with air barrier function for lens cleaning. Realized in stainless steel AISI304. Air circuit connections: 1x1/4"M-BSPP in nickel-plated brass. Requires the use of air filter group model GFATEC. The housing is supplied complete with wall mounting bracket with swivel joint and IP66 junction box complete with selectable terminal for power input, "ELPRO" for input and output video signal, BNC socket for local video service, switching power supply 96-264Vac 50/60Hz 12Vcc 15W. Supplied with short circuit protection. Interconnection kit from camera to junction box consisting of power supply cable and coaxial cable for video signal, L=1,5m, with galvanized steel wire braided sheath included.

### ACQ07X008A

Complete industrial camera system with varifocal lens DC Auto Iris 5-60 mm F1.6 IR. Other characteristics as ACQ07X007A.

## AIR & WATER COOLED PRESSURIZED CAMERA HOUSING

### ACQ07X0P3



Integrated Full HD IP camera for industrial application with varifocal lens 2,8-12mm. 1/2.7" CMOS sensor 1920x1080 pixel. Sensitivity: 0.25Lux(color) / 0.5Lux(B/W). 76dB WDR. Multiple streaming up to 1920x1080@30ips. H.264 e M-JPEG. Special functions: Day&Night, AES, fixed shutter, White balance, Noise reduction, BLC, Defog, Privacy masking, Image mirror/flip. Protected inside ACQUATEC housing, designed for continuous operation up to 400°C. Realized in AISI304 stainless steel, with water and compressed air cooling system (Tin<35°C @1Bar - 3Nm3/h) and special air barrier which keeps the lens clean. Interconnections air circuit 1x1/4"M-BSPP sv.60° in nickel plated brass. It requires compressed air instrumentations, available with the use of GFATEC filter group (not included). Complete with mounting bracket with swivel joint and junction box PoE IEEE 802.3af, made of Aluminum, IP66. Equipped with short circuit protection, interconnection kit between JBX and camera housing L=1,5m with galvanized steel wire braided sheath included.

### ACQ07X0P4

Integrated Full HD IP camera for industrial application with varifocal lens 5-60mm. 1/2.7" CMOS sensor 1920x1080 pixel. Sensitivity: 0.25Lux(color) / 0.5Lux(B/W). 76dB WDR. Multiple streaming up to 1920x1080@30ips. H.264 e M-JPEG. Special functions: Day&Night, AES, fixed shutter, White balance, Noise reduction, BLC, Defog, Privacy masking, Image mirror/flip. Protected inside ACQUATEC housing, designed for continuous operation up to 400°C. Realized in AISI304 stainless steel, with water and compressed air cooling system (Tin<35°C @1Bar - 3Nm3/h) and special air barrier which keeps the lens clean. Interconnections air circuit 1x1/4"M-BSPP sv.60° in nickel plated brass. It requires compressed air instrumentations, available with the use of GFATEC filter group (not included). Complete with mounting bracket with swivel joint and junction box PoE IEEE 802.3af, made of Aluminum, IP66. Equipped with short circuit protection, interconnection kit between JBX and camera housing L=1,5m with galvanized steel wire braided sheath included.

### ACQ07X0P5



Integrated Low Light Full HD IP camera for industrial application with varifocal lens 2,8-12mm. 1/2.8" CMOS sensor 1920x1080 pixel (2MP). Sensitivity: 0.0069Lux(color) / 0.0008Lux(B/W). 120dB WDR. Multiple streaming up to 1920x1080@60fps. H.264 e M-JPEG. Special functions: Day&Night, AES, fixed shutter, White balance, Noise reduction, SNR, BLC, Defog, Privacy masking 8 areas, Image mirror/flip. Protected inside ACQUATEC housing, designed for continuous operation up to 400°C. Realized in AISI304 stainless steel, with water and compressed air cooling system (Tin<35°C @1Bar - 3Nm3/h) and special air barrier which keeps the lens clean. Interconnections air circuit 1x1/4"M-BSPP sv.60° in nickel plated brass. It requires compressed air instrumentations, available with the use of GFATEC filter group (not included). Complete with mounting bracket with swivel joint and junction box PoE IEEE 802.3af, made of Aluminum, IP66. Equipped with short circuit protection, interconnection kit between JBX and camera housing L=1,5m with galvanized steel wire braided sheath included.

### ACQ07X0P6

Integrated Low Light Full HD IP camera for industrial application with varifocal lens 5-60mm. 1/2.8" CMOS sensor 1920x1080 pixel (2MP). Sensitivity: 0.0069Lux(color) / 0.0008Lux(B/W). 120dB WDR. Multiple streaming up to 1920x1080@60fps. H.264 e M-JPEG. Special functions: Day&Night, AES, fixed shutter, White balance, Noise reduction, SNR, BLC, Defog, Privacy masking 8 areas, Image mirror/flip. Protected inside ACQUATEC housing, designed for continuous operation up to 400°C. Realized in AISI304 stainless steel, with water and compressed air cooling system (Tin<35°C @1Bar - 3Nm3/h) and special air barrier which keeps the lens clean. Interconnections air circuit 1x1/4"M-BSPP sv.60° in nickel plated brass. It requires compressed air instrumentations, available with the use of GFATEC filter group (not included). Complete with mounting bracket with swivel joint and junction box PoE IEEE 802.3af, made of Aluminum, IP66. Equipped with short circuit protection, interconnection kit between JBX and camera housing L=1,5m with galvanized steel wire braided sheath included.

**ACQ07X100**



Pressurized camera housing ACQUATEC series IP66 with power supply max 24Vac, designed for continuous operation with high temperatures up to 400°C, water and air compressed cooled (Tin<35°C @1Bar - 3Nm³/h). Max camera's dimensions: Ø90 mm x 320 mm. Minimum optical focal to be used without interception: 3,5 mm (1/3"). Realized in Stainless Steel AISI304.

Interconnection with air circuit 1x1/4" M-BSPP flared 60°, in nickel-plated brass. The device requires the use of compressed air, through the filtering group GFATEC. Completed with anti-condensation resistance and 24Vac heating.

**ACQ07X110**



Pressurized camera housing ACQUATEC designed for continuous operation with high temperatures up to 90°C, with compressed air cooled circuit (Tin<35°C). Further characteristics as ACQ07X100.

**ACQ07X200**



Pressurized camera housing ACQUATEC series IP66, with special dust and infrared protection glass. Other characteristics as ACQ07X100.

**ACQ07X210**



Pressurized camera housing ACQUATEC IP66, designed for continuous operation with high temperatures up to 90°C, with compressed air cooled circuit (Tin<35°C @1Bar - 3Nm³/h) and special barrier of air blade for crystal's protection. Further characteristics as ACQ07X100.

**ACQ07X220**



Pressurized camera housing ACQUATEC IP66 for cameras with power supply max 24Vac, designed for continuous application with high temperature up to 400°C, with water cooling system. Equipped with borosilicate frontal glass and special anti-infrared filter. Internal available dimensions: Ø90 x 320mm. Minimal optic usable without interception: 3,5mm (1/3"). Realized in Stainless steel AISI304.

**ACQ07X300**



Pressurized camera housing ACQUATEC IP67, large version, designed for continuous operations up to 400°C. Water and compressed air cooled. Usable front window: Ø110mm, thickness: 5mm. Internal available dimensions: 116x116x485 mm. Realized in electro-polished Stainless Steel AISI316L. Weight: 18Kg. Water fitting 2x1/2" F-BSPP, air 1/4" F-BSPP. Cables entry: 2 M20x1,5. Air filtration unit series GFATEC is requested.

**ACQ07X900**



Pressurized camera housing made of Stainless Steel AISI304 for industrial use. External diameter max 129 mm, length 250 mm. Cable inlet 1x1/2" F-BSPP.

**ACQ07X901**



Pressurized camera housing with compressed air and water circuit (Tin<35°C @1Bar - 3Nm³/h). Dimensions: internal Ø90x220 mm, external Ø150x250 mm. Minimum optical focal to be used without interception: 3,5 mm (1/3"). Realized in Stainless Steel AISI304. Interconnection with air circuit 1x1/4" M-BSPP flared 60°, water 2x1/2" M-BSPP flared 60° in nickel-plated brass. Requires the use of compressed air, through the filtering group GFATEC. Cables entrance 2x1/2" F-BSPP. Cable glands excluded.

**ACQ07G004**



Wall mounting bracket for ACQUATEC and SONDATEC housing, realized in Stainless Steel AISI304.

**ACQ07G100**



Joint bracket for ACQUATEC and SONDATEC housing, realized in Stainless Steel AISI304. Allows a wide range of vertical and horizontal position.

**07H001**

Transparent glass window, diameter 65 mm, thickness 3 mm.

**07H002**

Metallic glass window, diameter 65 mm, thickness 3 mm.

**07H003**

Transparent level glass, diameter 74 mm, thickness 3 mm.

**07H004**

Frontal filter Heat resistant and Heat reflecting Diam. 65 mm sp. 1 mm.

**07H005**

Quartz protection glass, high temperature resistant, diameter 65 mm, thickness 1 mm.

**07H008**

Borofloat window for ACQ07X300 housing series. Diameter 123mm, thickness 5mm. Usable diameter 110mm.

**07H009**

Borofloat window resistant up to 400°C. Diameter 65mm, thickness 3mm.

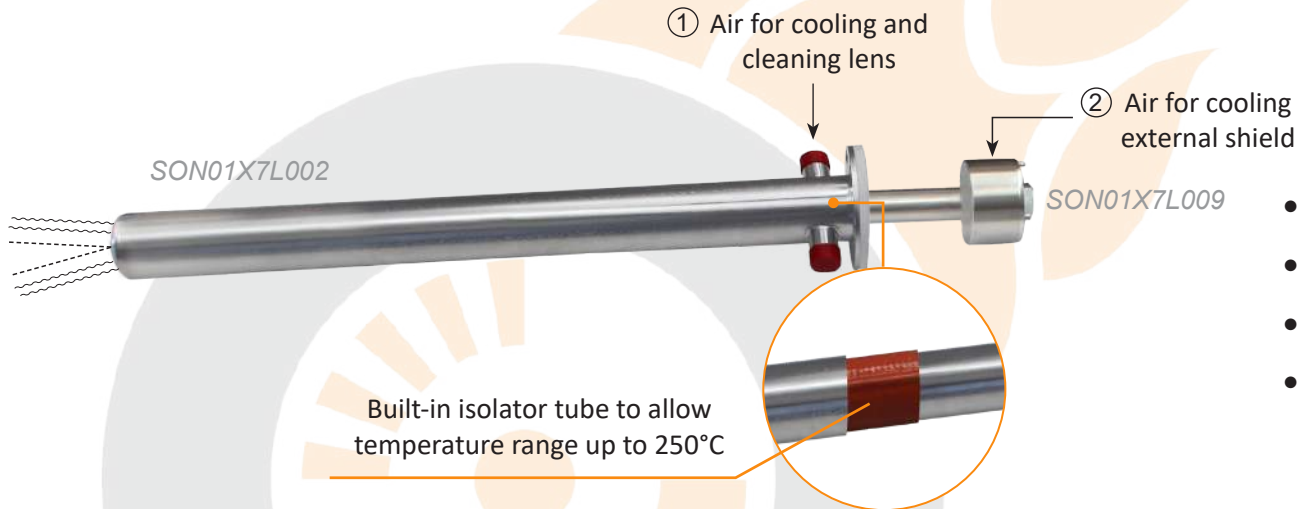
# HIGH TEMPERATURE CAMERA SYSTEMS UP TO 90°C

▶ HIGH TEMPERATURE CAMERA SYSTEMS UP TO 90°C / 250°C

Product code configuration table

sonda<sup>tec</sup> L

0	1	X	A	B	C	D	E
			Length [mm]	Series	View / Field of vision	Material	Version
			1 = 1200	S = Air & water cooling	0 = axial	0 = AISI316L	9 = up to 90°C
			3 = 300	P = Air cooling		1 = AISI310S	2 = up to 250°C
			4 = 4000	G = Air cooling			
			6 = 1600	L = Air cooling			
			7 = 700				



- Air cooled pressurized housing
- Axial view
- Up to 90°C
- Special built-in isolator tube and external shield for version up to 250°C

AIR COOLED PRESSURIZED CAMERA HOUSING

# sonda<sup>tec</sup>

## HIGH TEMPERATURE CAMERA SYSTEMS UP TO 90°C / 250°C

NEW

**SON01X7L002**



Camera housing SONDATEC L series for CAMTEC cameras, designed for continuous operation with high temperature up to 250°C, air cooled, equipped with built-in isolator tube and external shield. Axial vision, allows the use of lens with diagonal angle of view up to 68°. Made by Stainless Steel AISI316L. Diameter: 45mm, length: 700mm. Penetration max 500mm.

NEW

**SON01X7L009**



Camera housing SONDATEC L series for CAMTEC cameras, designed for continuous operation with high temperature up to 90°C, air cooled. Axial vision, allows the use of lens with diagonal angle of view up to 68°. Made by Stainless Steel AISI316L. Diameter: 45mm, length: 700mm. Penetration max 500mm.

# cam<sup>tec</sup>

## HIGH TEMPERATURE CAMERA SYSTEMS UP TO 90°C / 250°C

NEW

**CAM12X7L7**

Industrial IP camera with high temperature lens 68° (diagonal angle) used with SONDATEC L series, axial vision. Length=700mm. Progressive CMOS 1/4" sensor, f=3.7mm, resolution up to 1280x720 pixels @ 30fps. Configuration of parameters through web server. It requires control unit and separate power supply, available in local JBX or CABTEC. Supplied with bracket and flange integrated with air cooling system. THE PRICE INCLUDES ASSEMBLING, SETTING AND SPECIAL PROGRAMMING OF THE CAMERA.

NEW

**CAM12X7L7T**

Industrial IP camera with high temperature lens 68° (diagonal angle) used with SONDATEC L series, axial vision. Length=700mm. Progressive CMOS 1/4" sensor, f=3.7mm, resolution up to 1280x720 pixels @ 30fps. Configuration of parameters through web server. It requires control unit and separate power supply, available in local JBX or CABTEC. Supplied with bracket and flange integrated with air cooling system. Complete with temperature sensor Pt100. THE PRICE INCLUDES ASSEMBLING, SETTING AND SPECIAL PROGRAMMING OF THE CAMERA.

**AIR COOLED PRESSURIZED CAMERA HOUSING**



### CAM12X3H0N



IP industrial camera supplied with assembled high temperature varifocal lens 3,6-18mm (diagonal angle: 78°/18°, H: 72°/16°, V: 44°/9°), to be used with SONDATEC series "H", L=350mm. 1/3" CMOS sensor with Full HD 1920x1080 pixel resolution @30fps. Min. illumination: 0.65Lux (Color), 0.15Lux (Day/Night). Removable IR cut filter for low light application also. Configuration through web browser and PC (not included). Triple compression: MJPEG, MPEG-4, H.264. Power supply PoE IEEE 802.3af Class2, 3.2W consumption. Complete with AISI316L M20 cablegland. THE PRICE INCLUDES ASSEMBLING, SETTING AND SPECIAL PROGRAMMING FOR THE CAMERA.

### CAM12X3H2N

IP industrial camera supplied with assembled high temperature lens 4mm (diagonal angle: 74°, H: 66°, V: 40°), to be used with SONDATEC series "H", L=350mm. 1/3" CMOS sensor with Full HD 1920x1080 pixel resolution @30fps. Min. illumination: 0.65Lux (Color), 0.15Lux (Day/Night). Removable IR cut filter for low light application also. Configuration through web browser and PC (not included). Triple compression: MJPEG, MPEG-4, H.264. Power supply PoE IEEE 802.3af Class2, 3.2W consumption. Complete with AISI316L M20 cablegland. THE PRICE INCLUDES ASSEMBLING, SETTING AND SPECIAL PROGRAMMING FOR THE CAMERA.

### CAM12X3H3N

IP industrial camera supplied with assembled high temperature lens 2,8mm (diagonal angle: 94°, H: 86°, V: 55°), to be used with SONDATEC series "H", L=350mm. 1/3" CMOS sensor with Full HD 1920x1080 pixel resolution @30fps. Min. illumination: 0.65Lux (Color), 0.15Lux (Day/Night). Removable IR cut filter for low light application also. Configuration through web browser and PC (not included). Triple compression: MJPEG, MPEG-4, H.264. Power supply PoE IEEE 802.3af Class2, 3.2W consumption. Complete with AISI316L M20 cablegland. THE PRICE INCLUDES ASSEMBLING, SETTING AND SPECIAL PROGRAMMING FOR THE CAMERA.

### CAM12X3H6N

IP industrial camera supplied with assembled high temperature varifocal lens 10-50mm (diagonal angle: 78°/18°, H: 72°/16°, V: 44°/9°), to be used with SONDATEC series "H", L=350mm. 1/3" CMOS sensor with Full HD 1920x1080 pixel resolution @30fps. Min. illumination: 0.65Lux (Color), 0.15Lux (Day/Night). Removable IR cut filter for low light application also. Configuration through web browser and PC (not included). Triple compression: MJPEG, MPEG-4, H.264. Power supply PoE IEEE 802.3af Class2, 3.2W consumption. Complete with AISI316L M20 cablegland. THE PRICE INCLUDES ASSEMBLING, SETTING AND SPECIAL PROGRAMMING FOR THE CAMERA.



### SON01X3H00



SONDATEC housing "H" series suitable for high dust environments designed for CAMTEC cameras 12X3H-N. Suitable for use with temperature up to 90°C, air cooled. Axial vision, for lens up to 94° diagonal angle of view. Made by Stainless Steel AISI316L. Diameter: 101,6mm, length: 350mm.

## AIR COOLED PRESSURIZED CAMERA HOUSING



# HIGH TEMPERATURE CAMERA SYSTEMS UP TO 90°C

## ▶ HIGH TEMPERATURE CAMERA SYSTEMS UP TO 90°C

Product code configuration table

airtec

0	8	X	A	B	C
			Length	Power Supply	Window
			3 = 300 mm	0 = 230Vac	0 = Flat Glass
			5 = 350 mm	2 = 12Vdc / 24Vac	1 = Convex Glass
			0 = Integrated code	3 = PoE	3 = Germanium (30Ø usable)
				9 = Ø	5 = Germanium (55Ø usable)
					9 = without window



### AIR COOLED PRESSURIZED CAMERA HOUSING



AIRTEC with special Germanium window



AIR08X391



AIR08Xxxx



AIRTEC with POE Injector



- Air cooled pressurized housing
- Useful for Analogue, IP or Infrared camera
- Up to 90°C

### AIR COOLED PRESSURIZED CAMERA HOUSING

### AIR08X007



Complete industrial camera system with varifocal lens DC Auto Iris 2,8-12mm F1.4 IR. 2MP camera with progressive CMOS sensor 1/2.9" and Wise Net HD+ functionality. 1000HTVL, Full HD over coax (1920x1080p resolution @30fps). Min illumination: 0.15Lux (F1.2, 50IRE), 0.09Lux (F1.2, 30IRE), B/W: 0.015Lux (F1.2, 50IRE), 0.009Lux (F1.2, 30IRE). Video output: BNC (AHD, CVBS selectable). Day&Night, D-WDR, SSNR4, De-Fog, Motion Detection, etc. Supplied inside AIRTEC housing with pressurized air circuit, designed for temperatures up to 90°C, with compressed air cooling circuit (Tin<35°C @1Bar - 3Nm3/h). Equipped with air barrier function for lens cleaning. Material: die-cast aluminum. Air circuit connections: 1x1/4"M-BSPP in nickel-plated brass. Requires the use of air filter group model GFATEC. Supplied complete with wall mounting bracket with swivel joint and IP66 junction box complete with selectable terminal for power input, "ELPRO" for input and output video signal, BNC socket for local video service, switching power supply 96-264Vac 50/60Hz 12Vcc 15W. Supplied with short circuit protection. Interconnection kit from camera to junction box consisting of power supply cable and coaxial cable for video signal, L=1,5m, with galvanized steel wire braided sheath included.

### AIR08X008

Complete industrial camera system with varifocal lens DC Auto Iris 5-60 mm F1.6 IR. Other features as AIR08X007.

### AIR08X300



Pressurized camera housing for temperature up to 90°C. Internal available dimensions: 105x86x300 mm. Flat glass window: 80x70 mm. Power supply 230Vac for heater and thermostat. Compressed air cooling circuit: interconnection 1x1/4"M-BSPP. Temp. IN <35°C, pressure IN from 0.5bar to 1bar max. Requires the use of air quality instrumentation, available through GFATEC filter assembly series. Designed to operate in dusty environments. Cable glands No. 3 M16x1.5. Die-cast and extruded aluminum body. Opening slide and hang system. Color white RAL9002. IP66. Supplied with air barrier and wall mounting brackets.

### AIR08X320

Pressurized camera housing for temperature up to 90°C. Internal available dimensions: 105x86x300 mm. Flat glass window: 80x70 mm. Power supply 12Vdc/24Vac for heater and thermostat. Other features as AIR08X300.

### AIR08X329

Pressurized camera housing for temperature up to 90°C. Internal available dimensions: 105x86x300 mm. Supplied without window. Power supply 12Vdc/24Vac for heater and thermostat. Other features as AIR08X300.

### AIR08X391

Pressurized camera housing for temperature up to 90°C. Internal available dimensions: 105x86x300 mm. Convex glass window: 80x70 mm. Other features as AIR08X300.

### AIR08X500



Pressurized camera housing for temperature up to 90°C. Internal available dimensions: 105x86x350 mm. Flat glass window: 80x70 mm. Power supply 230Vac for heater and thermostat. Other features as AIR08X300.

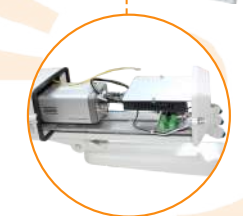
### AIR08X520

Pressurized camera housing for temperature up to 90°C. Internal available dimensions: 105x86x350 mm. Flat glass window: 80x70 mm. Power supply 12Vdc/24Vac for heater and thermostat. Other features as AIR08X300.

### AIR08X529

Pressurized camera housing for temperature up to 90°C. Internal available dimensions: 105x86x350 mm. Supplied without window. Power supply 12Vdc/24Vac for heater and thermostat. Other features as AIR08X300.

### AIR08X530



Pressurized camera housing with PoE+ splitter for temperature up to 90°C. Internal available dimensions: 105x86x350 mm. Flat glass window: 80x70 mm. Power supply PoE+: 30W (IEEE 802.3at) input: 36-57Vdc - output: 12Vdc for camera, heater and thermostat. Other features as AIR08X300.



## AIR COOLED PRESSURIZED CAMERA HOUSING

# PROTECTION DEVICES & CONTROL CABINETS

## ► PROTECTION DEVICES & CONTROL CABINETS

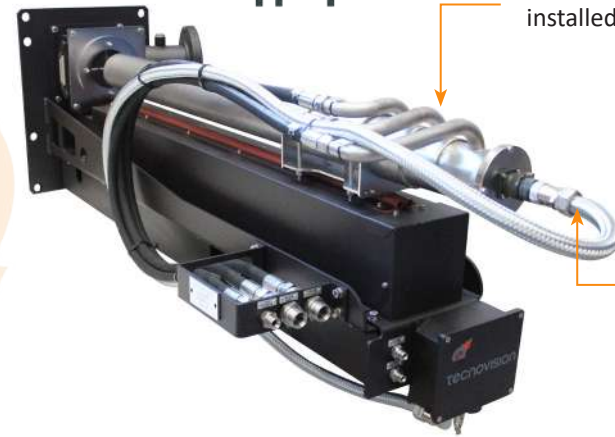
OU<sup>tec</sup>\*



Example of SON01X301  
installed on the Outec

or

in<sup>tec</sup>\*



Example of SON01X161  
installed on the Intec

Air vortex  
cooler  
(as option)

- External wall mounted
- Self protected
- Conical hole required

- Inside type with retraction device
- Mounting solutions: axial or inclined
- Self protected
- Axial hole required
- Wide angle of view available

\*Depending of the application may be not required.

PROTECTION DEVICES

**PROTECTION DEVICES & CONTROL CABINETS**

**OUT03X100**



Fixing and protection device for SONDATEC housing for furnace wall, complete with shutter and high temperature pneumatic cylinder. Water cooled with air barrier circuit. Made by Stainless Steel AISI304. Provided with insulator panel to be interjected on the wall and flexible tube for connection with housing, length 1m.

**OUT03X200**



Fixing and protection device for SONDATEC housing for furnace wall, complete with shutter and high temperature pneumatic cylinder. Air compressed cooled with air barrier circuit. Made by Stainless Steel AISI304. Complete with insulator panel.

**OUT03X400**

Protective device and mounting enclosures for SONDATEC 2.0 complete with locking flap controlled by a pneumatic cylinder in case of absence of air. Circuit for cooling water and compressed air barrier dam. Made by Stainless Steel AISI304.

**03A034A0**

Thermal insulation panel  $T_e=1260$  in sheet KAOWOOL, thickness= 10 mm for OUTEC version.

**03A035A0**

Thermal insulation pannel made by KAOWOOL for temperarture up to  $1260^{\circ}\text{C}$ . Thickness 10mm. To be fit between OUTEC 2.0 and furnace wall.





0	2	X	A	B	C	D	E
			Type of mounting	Actuator length	Type of housing	On board air circuit pipes	Fittings
			1 = straight	0 = 1000 mm	1 = Sonda 2.0	1 = PA11	1 = AISI316L
			2 = inverted	1 = 1300 mm	2 = Periscope	2 = Cu	2 = Nichel
			3 = HT straight	2 = 1200 mm	3 = Sonda "S"		
			4 = HT inverted	4 = 400 mm	4 = Sonda "P"		
			5 = vertical	6 = 600 mm			
			6 = HT vertical	8 = 800 mm			
				9 = 900 mm			

**INTEC02X16211**

- Advancement/withdrawal system for periscope device, with pneumatic actuator (ride: 600mm) provided with:
- Self supporting framework with rails and porthole plate to fixing to furnace/boiler wall. Made in carbon steel varnished with epoxy pre-treatment 60µm and painting with polyester 60µm; Probe mounting overlying the actuator.
  - Pneumatic cylinder with slide to support SONDATEC.
  - Pneumatic circuit on board realized with pipes made of PA11.
  - Fittings for external pipes for hydraulic and pneumatic circuit made of AISI316L.

**INTEC02X18122**

- Advancement/withdrawal system for SONDATEC 2.0 series, with pneumatic actuator (ride: 800mm) provided with:
- Self supporting framework with rails and porthole plate to fixing to furnace/boiler wall. Made in carbon steel varnished with epoxy pre-treatment 60µm and painting with polyester 60µm; Probe mounting overlying the actuator.
  - Pneumatic cylinder with slide to support SONDATEC;
  - Pneumatic circuit on board realized with pipes made of Cu.
  - Fittings for external pipes for hydraulic and pneumatic circuit made of Nichel.

**INTEC02X19311**

- Advancement/withdrawal system for SONDATEC "S" series, with pneumatic actuator (ride: 900mm) provided with:
- Self supporting framework with rails and porthole plate to fixing to furnace/boiler wall. Made in carbon steel varnished with epoxy pre-treatment 60µm and painting with polyester 60µm; Probe mounting overlying the actuator.
  - Pneumatic cylinder with slide to support SONDATEC "S";
  - Pneumatic circuit on board realized with pipes made of PA11.
  - Fittings for external pipes for hydraulic and pneumatic circuit made of AISI316L.



### INTEC02X26422

Advancement/withdrawal system for integrated SONDATEC P series, with pneumatic actuator (ride: 600mm) provided with:

- Self supporting framework with rails and porthole plate to fixing to furnace/boiler wall. Made in carbon steel varnished with epoxy pre-treatment 60µm and painting with polyester 60µm; Probe mounting below the actuator.
- Pneumatic cylinder with slide to support SONDATEC;
- Fan air connection for pneumatic actuator cooling function.
- Pneumatic circuit on board realized with pipes made of Cu.
- Fittings for external pipes for hydraulic and pneumatic circuit made of Nichel.

### INTEC02X28122

Advancement/withdrawal system for SONDATEC 2.0 series, with pneumatic actuator (ride: 800mm) provided with:

- Self supporting framework with rails and porthole plate to fixing to furnace/boiler wall. Made in carbon steel varnished with epoxy pre-treatment 60µm and painting with polyester 60µm; Probe mounting below the actuator.
- Pneumatic cylinder with slide to support SONDATEC;
- Pneumatic circuit on board realized with pipes made of Cu.
- Fittings for external pipes for hydraulic and pneumatic circuit made of Nichel.



### INTEC02X28322

Advancement/withdrawal system for SONDATEC "S" series, with pneumatic actuator (ride: 800mm) provided with:

- Self supporting framework with rails and porthole plate to fixing to furnace/boiler wall. Made in carbon steel varnished with epoxy pre-treatment 60µm and painting with polyester 60µm; Probe mounting below the actuator.
- Pneumatic cylinder with slide to support SONDATEC "S";
- Pneumatic circuit on board realized with pipes made of Cu.
- Fittings for external pipes for hydraulic and pneumatic circuit made of Nichel.



### INTEC02X48122

Advancement/withdrawal system for high temperature up to 80°C for SONDATEC 2.0 series, with pneumatic actuator (ride: 800mm) provided with:

- Self supporting framework with rails and porthole plate to fixing to furnace/boiler wall. Made in carbon steel varnished with epoxy pre-treatment 60µm and painting with polyester 60µm; Probe mounting below the actuator.
- Pneumatic cylinder with slide to support SONDATEC;
- Fan air connection for pneumatic actuator cooling function.
- Pneumatic circuit on board realized with pipes made of Cu.
- Fittings for external pipes for hydraulic and pneumatic circuit made of Nichel.

### INTEC02X68122

High temperature up to 80°C advancement/withdrawal system for vertical installation of SONDATEC 2.0 series, with double pneumatic actuator (ride: 800mm) provided with:

- Self supporting framework with rails and porthole plate to fixing to furnace/boiler wall. Made in carbon steel varnished with epoxy pre-treatment 60µm and painting with polyester 60µm; Probe mounting overlying the actuator.
- Double pneumatic cylinder with slide to support SONDATEC;
- Fan air connection for pneumatic actuator cooling function.
- Pneumatic circuit on board realized with pipes made of Cu.
- Fittings for external pipes for hydraulic and pneumatic circuit made of Nichel.

02A041A0

Thermal insulation panel in sheet KAOWOOL, thickness= 10 mm for INTEC version.



0	2	D	A	B	C	D
			Air barrier	Temperature Sensor	Type of mounting (back view)	Type of housing
			0 = fan air	0 = Thermostat	0 = with left flange	1 = Sonda 2.0
			1 = compressed air	T = PT100	1 = with right flange (as our standard)	2 = Periscope
			2 = no air barrier	W = PT100 + Thermostat	2 = without flange	3 = Sonda "S"
				N = no temperature sensor	3 = special mounting	4 = Sonda "P"
					4 = pneumatic shutter door	

CODES TABLE OF OBLO' FOR INTEC PROTECION DEVICES

**OBLO02D0013**

Protective porthole for closing/opening in the furnace/boiler to be positioned on the counter plate, with mechanical shutter, centralizing ring and flange for air connection on right side. Special mounting, entirely made of stainless steel AISI304. Complete with thermostat. Flange on right side. Designed for "S" Sondatec.

**OBLO02D0T01**

Protective porthole for closing/opening in the furnace/boiler to be positioned on the counter plate, with mechanical shutter, centralizing ring and flange for air connection 3" ANSI – 150RF on left side. Entirely made of stainless steel AISI304. Complete with Pt100 temperature sensor. Suitable for Sondatec 2.0.

**OBLO02D0T21**

Protective porthole for closing/opening in the furnace/boiler to be positioned on the counter plate, with mechanical shutter and centralizing ring. Complete with Pt100 temperature sensor. Suitable for Sondatec 2.0.



**OBLO02D0W11**

Protective porthole for closing/opening in the furnace/boiler to be positioned on the counter plate, with mechanical shutter, centralizing ring and flange for air connection 3" ANSI – 150RF on right side. Entirely made of stainless steel AISI304. Complete with temperature sensor PT100 and thermostat. Suitable for Sondatec 2.0.

**OBLO02D1034**

Protective porthole for closing/opening in the furnace/boiler to be positioned on the counter plate, with mechanical shutter, centralizing ring and flange for air connection. Special mounting, entirely made of stainless steel AISI304. Complete with thermostat. Suitable for Intec device with Sondatec P.

**OBLO02D1T33**

Protective porthole for closing/opening in the furnace/boiler to be positioned on the counter plate, with mechanical shutter, centralizing ring and flange for air connection. Special mounting, entirely made of stainless steel AISI304. Complete with temperature sensor PT100. Suitable for Intec device with Sondatec S.

**OBLO02D2N41**

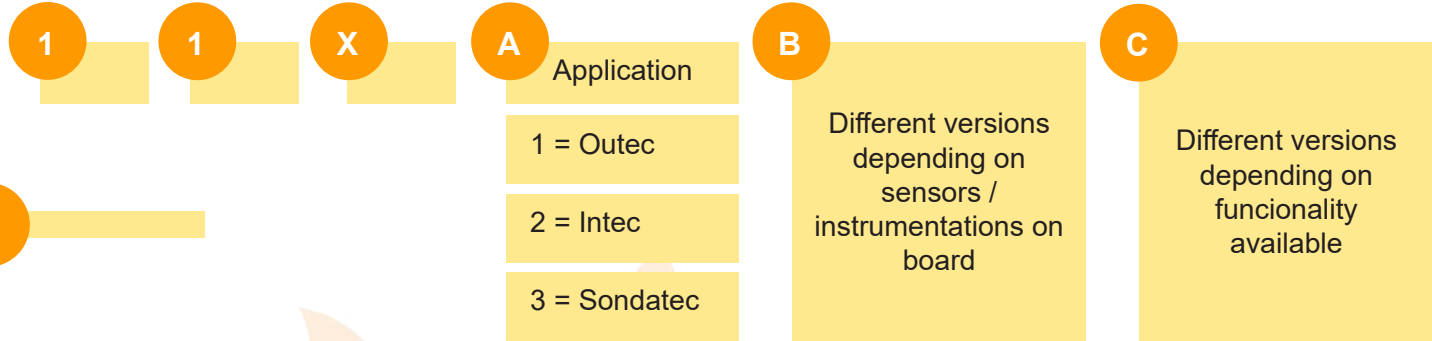
Protective porthole for closing/opening in the furnace/boiler to be positioned on the counter plate, with pneumatic shutter door. Entirely made of stainless steel AISI304. Complete with electrovalve. Supplied mounted on INTEC device. Suitable for Sondatec 2.0.

# PROTECTION DEVICES & CONTROL CABINETS

## ► PROTECTION DEVICES & CONTROL CABINETS

Product code configuration table

**cab**tec



\*for control cabinets made of GRP you have to add "P" at the end of the code.

Two segregated units to separate electrical and hydraulic parts



- Management and control of Outec or Sondatec products
- Air & Water cooling
- On Screen Display module available
- Portable solution available

**CONTROL CABINETS**





**CAB11X101AP**



Control cabinet with logic controller for OUTEK device, IP solution. Supplied with the following instrumentations:

- Logic controller with display;
- Double stage air filtration unit with dual pressure control valve with gauge;
- Air pressostat switch;
- Electrovalve for open/close control of OUTEK shutter;
- Water flow meter with integrated temperature sensor;
- Camera temperature sensor management;
- Front panel push buttons and signals led's;

Cabinet includes RJ45 sockets for Ethernet cable.

Water pipes are made by copper and air pipes in Rilsan Pa11. Fittings outside cabinet are 1/2" M-BSPP.

Double cabinet in painted RAL7035 steel, IP66, dimension: 800x500x200mm. Power requirements: 96-264Vac 50/60Hz. Operating temperature: +5°/55°C.



**CAB11X101AM**

Control cabinet with logic controller for OUTEK device, IP solution. Supplied with the following instrumentations:

- Logic controller with display;
- Double stage air filtration unit with dual pressure control valve with gauge;
- Air pressostat switch;
- Electrovalve for open/close control of OUTEK shutter;
- Water flow meter with integrated temperature sensor;
- Camera temperature sensor management;
- Front panel push buttons and signals led's;

Cabinet includes RJ45 sockets for Ethernet cable. Includes software version for Modbus communication.

Water pipes are made by copper and air pipes in Rilsan Pa11. Fittings outside cabinet are 1/2" M-BSPP.

Double cabinet in painted RAL7035 steel, IP66, dimension: 900x500x200mm. Predisposed for switch/FO box containment. Power requirements: 96-264Vac 50/60Hz. Operating temperature: +5°/55°C.



**CAB11X101C**

Control cabinet with logic controller and OSD module for OUTEK device. Supplied with the following instrumentations on board:

- Logic controller with display
- On Screen Display module for alarm signal
- Double stage air filtration unit with dual pressure control valve with gauge
- Air pressostat switch
- Electrovalve for open/close control of OUTEK shutter
- Water flow meter with integrated temperature sensor
- Water temperature sensor
- Camera temperature sensor management
- Front panel push buttons and signals led's

Cabinet includes power supply module and coaxial cable connector "ELPRO", with local BNC socket for local video test.

Water pipes are made by copper and air pipes in Rilsan Pa11. Fittings IN/OUT M-BSPP sv.60°.

Double cabinet in painted RAL7035 steel, IP66, dimension: 800x500x200mm. Power requirements 90-256Vac 50/60Hz. Operating temperature: +5°/55°C.



**CAB11X101DP**



Control cabinet with logic controller for OUTEK device, IP solution. Supplied with the following instrumentations:

- Logic controller with display;
  - Double stage air filtration unit with dual pressure control valve with gauge;
  - Air pressostat switch;
  - Electrovalve for open/close control of OUTEK shutter;
  - Water flow meter (without display);
  - Water temperature sensor;
  - Camera temperature sensor management;
  - Relay alarm module;
  - Front panel push buttons and signals led's;
- Cabinet includes RJ45 sockets for Ethernet cable.

Water pipes are made by copper and air pipes in Rilsan Pa11. Fittings IN/OUT 1/2" M-BSPP, sv.60°.

Double cabinet in painted RAL7035 steel, IP66, dimension: 800x500x200mm. Power requirements: 96-264Vac 50/60Hz. Operating temperature: +5°/55°C.

**CAB11X101DR**



Control cabinet with logic controller for OUTEK device, IP solution. Supplied with the following instrumentations:

- Logic controller with display;
  - Double stage air filtration unit with dual pressure control valve with gauge;
  - Air pressostat switch;
  - Electrovalve for open/close control of OUTEK shutter;
  - Water flow meter (without display);
  - Water temperature sensor;
  - Camera temperature sensor management;
  - Relay alarm module;
  - Front panel push buttons and signals led's;
- Cabinet includes RJ45 sockets for Ethernet cable. Predisposed for switch and FO box containment.

Water pipes are made by copper and air pipes in Rilsan Pa11. Fittings IN/OUT 1/2" M-BSPP, sv.60°.

Double cabinet in painted RAL7035 steel, IP66, dimension: 900x500x200mm. Power requirements: 96-264Vac 50/60Hz. Operating temperature: +5°/55°C

**CAB11X105FP**



Control cabinet for 2 OUTEK devices. Supplied with the following instrumentations:

- Double stage air filtration unit with dual pressure control valve with gauge
- Double air pressostat switch
- Double electrovalve for open/close control of OUTEK shutter
- Double water flow meter with display
- Double water temperature sensor (Pt100 / Pt1000)
- Double camera temperature sensor management
- 2IN analog expansion module + further 2IN analog expansion module
- Front panel push buttons and signals led's

Cabinet includes power supply module and Rj45 sockets for Ethernet cable.

Water pipes are made by copper and air pipes in Rilsan Pa11. Fittings outside cabinet are 1/2" M-BSPP.

Double cabinet in painted RAL7035 steel, IP66, dimension 800x500x200mm. Power requirements 90-256Vac 50/60Hz. Operating temperature +5°/55°C.



**CAB11X202AP**

Control cabinet with logic controller for INTEC device. Supplied with the following instrumentations:

- Logic controller with display
  - Double stage air filtration unit with dual pressure control valve with gauge
  - Air pressostat switch
  - Electrovalve for insertion/extraction camera
  - Air Reservoir
  - Water digital flow meter
  - Water temperature sensor (Pt100 / Pt1000)
  - Camera temperature sensor management
  - Additional input / relay module
  - Front panel push buttons and signals led's
- Cabinet includes RJ45 sockets for Ethernet cable.

Water pipes in copper and air pipes in Rilsan Pa11. Fittings outside cabinet are 1/2" M-BSPP.

Double cabinet as painted RAL7035 steel, IP66, dimensions 1200x500x310mm. Power requirements 90-256Vac 50/60Hz. Operating temperature +5°/55°C.



**CAB11X202PP**

Control cabinet with logic controller for INTEC device. Supplied with the following instrumentations:

- Logic controller with display
- Double stage air filtration unit with dual pressure control valve with gauge
- Air pressostat switch
- Electrovalve for insertion/extraction camera
- Air Reservoir
- Camera temperature sensor management
- 2-In analogue expansion module
- Further 2-In analogue expansion module
- Front panel push buttons and signals led's

Cabinet includes RJ45 sockets for Ethernet cable. Water pipes in copper and air pipes in Rilsan Pa11. Fittings outside cabinet are 1/2" M-BSPP. Double cabinet as painted RAL7035 steel, IP66, dimensions 1200x500x310mm. Power requirements 90-256Vac 50/60Hz. Operating temperature +5°/55°C.



**CAB11X292GP**

Control cabinet with logic controller for INTEC device. Supplied with the following instrumentations:

- Logic controller with display
- Double stage air filtration unit with dual pressure control valve with gauge
- Pressure air switch
- Electrovalve for insertion / extraction camera
- Air Reservoir
- Water digital flow meter (without display)
- Water temperature sensor (Pt100/Pt1000)
- Cabinet heater
- Camera temperature sensor management
- Intec oblo temperature sensor management
- Front panel push buttons and signals led's

Cabinet includes power supply module and RJ45 sockets for Ethernet cable. Water pipes in copper and air pipes in Rilsan Pa11. Fittings outside cabinet are 1/2" M-BSPP. Double cabinet as painted RAL7035 steel, IP66. Dimensions: 1200x500x310mm. Power requirements: 90-256Vac 50/60Hz. Operating temperature: +5°/55°C.



**CAB11X306AP**



Control cabinet with logic controller for camera CAMTEC and SONDATEC device. Supplied with the following instrumentations:

- Logic controller with display and 2-in analogue expansion module
- Double stage air filtration unit with pressure control valve with gauge
- Air pressostat switch
- Water flow meter
- Water temperature sensor (PT100/PT1000)
- Temperature camera sensor management

Power presence and alarm signals led's on front cabinet door. Rj45 socket for Ethernet cable.

Water pipes in copper and air pipes in Rilsan Pa11. Fittings outside cabinet are 1/2" M-BSPP.

Double cabinet in painted RAL7035 steel, IP66, dimensions 800x500x200mm. Power requirements 90-256Vac 50/60Hz. Operating temperature: +5°/55°C.

**CAB11X306B**



Control cabinet with logic controller for camera CAMTEC and SONDATEC device. Supplied with the following instrumentations:

- Logic controller with display
- On Screen Display function for signalling and alarm info over video signal
- Double stage air filtration unit with pressure control valve with gauge
- Air pressostat switch
- Water flow switch
- Water temperature sensor
- Temperature camera sensor management

Power presence and alarm signals led's on front cabinet door

Cabinet includes power supply module and coaxial cable connector "ELPRO", with local BNC socket for local video test.

Water pipes in copper and air pipes in Rilsan Pa11. Fittings outside cabinet are 1/2" M-BSPP.

Double cabinet in painted RAL7035 steel, IP66, dimensions 800x500x200mm. Power requirements 90-256Vac 50/60Hz. Operating temperature +5°/55°C.

**CAB11X304E**



Control cabinet for two CAMTEC cameras and SONDATEC devices. Supplied with the following instrumentations:

- Pressure regulator
- Double stage air filtration unit with pressure control valve with gauge
- Double Air pressostat switch
- Water flow switch (W/Display)
- Water temperature sensor (4-20mA)

Power presence and alarm signals led's on front cabinet door.

Cabinet includes power supply module and coaxial cable connector "ELPRO", with local BNC socket for local video test.

Water pipes in copper and air pipes in Rilsan Pa11. Fittings IN/OUT cabinet M-BSPP sv.60°.

Double cabinet in painted RAL7035 steel, IP66. Dimensions: 800x500x200 mm. Power requirements 90-256 Vac 50/60 Hz. Operating temperature: +5°C/55°C.

**CAB11X307A**

Control cabinet with logic controller for camera CAMTEC and SONDATEC device. Supplied with the following instrumentations:

- Logic controller with display and 2-in analogue expansion module
- Double stage air filtration unit with pressure control valve with gauge
- Air / N2 Flow meter with flow regulator
- Water flow meter
- Water temperature sensor (PT100/PT1000)
- Temperature camera sensor management

Power presence and alarm signals led's on front cabinet door.

Cabinet includes power supply module and coaxial cable connector "ELPRO", with local BNC socket for local video test.

Water pipes in copper and air pipes in Rilsan Pa11. Fittings outside cabinet are 1/2" M-BSPP.

Compact cabinet in painted RAL7035 steel, IP66, dimensions: 800x500x200mm. Power requirements 90-256Vac 50/60Hz. Operating temperature: +5°/55°C.

**CAB11X388H**



Control cabinet designed for the management of n°2 Acquatec housings with frontal flange equipped with pneumatic protection. Supplied with the following instrumentations:

- Logic controller with display
- Double stage air filtration unit with dual pressure control valve with gauge
- Air pressure switch
- Double water temperature sensor (Pt100 / Pt1000)
- Front panel push buttons with LED for network presence indication, and functions selector.

Cabinet includes power supply module and coaxial cable connector "ELPRO", with local BNC socket for local video test.

Water pipes are made by copper and air pipes in Rilsan Pa11. Water fittings IN/OUT 1/2" M-BSPP, air 3/8" M-BSPP.

Double cabinet in painted RAL7035 steel, IP66, dimensions: 700x500x200mm. Power requirements: 90-256Vac 50/60Hz. Operating temperature: +5°/55°C.

**CAB11X392G**



Control cabinet for two CAMTEC cameras and SONDATEC devices. Supplied with the following instrumentations:

- Pressure regulator
- Double stage air filtration unit with dual pressure control valve with gauge
- Double pressure air switch
- Double water flow switch (without display)
- Double water temperature sensor (Pt100/Pt1000)
- Camera temperature sensor management
- Digital logic module with display / Ethernet
- 2 IN analog expansion module
- Further 2 IN analog expansion module

Power presence and alarm signals led's on front cabinet door.

Cabinet includes power supply module and coaxial cable connector "ELPRO", with local BNC socket for local video test.

Water pipes in copper and air pipes in Rilsan Pa11. Fittings IN/OUT cabinet M-BSPP sv.60°. Double cabinet in painted RAL7035 steel, IP66.

Dimensions: 800x500x200 mm. Power requirements 90-256Vac 50/60Hz. Operating temperature: +5°C/55°C.

*FOR DIFFERENT MODELS FROM THE VALUES DETAILED, REFER TO THE FOLLOWING TABLE.*



**CAB11X400A**



Control cabinet designed for portable solutions / mobile inspections with logic controller for camera CAMTEC and SONDATEC device. Supplied with the following instrumentations:

- Logic controller with display and 2-in analogue expansion module
- Double stage air filtration unit with pressure control valve with gauge
- Air pressostat switch
- Water flow meter
- Water temperature sensor (PT100/PT1000)
- Temperature camera sensor management
- Main unit of control camera

Power presence, alarm signals and alarm buzzer led's on front cabinet door. Cabinet includes power supply module.

Water pipes in copper and air pipes in Rilsan Pa11. Water fittings outside cabinet 2x1/2" M-BSPP, air 3/8" M-BSPP.

Double cabinet in painted RAL7035 steel, IP66, dimensions: 1100x400x250mm. Power requirements 90-256Vac 50/60Hz. Operating temperature +5°/55°C. Supplied on a special trolley for easy movements



**CAB11X401A**

Control cabinet designed for portable solutions / mobile inspections with logic controller for camera CAMTEC and SONDATEC device. Supplied with the following instrumentations:

- Logic controller with display and 2-in analogue expansion module
- Double stage air filtration unit with pressure control valve with gauge
- Air pressostat switch
- Water flow meter
- Water temperature sensor (PT100/PT1000)
- Temperature camera sensor management
- Main units of control cameras

Power presence, alarm signals and alarm buzzer led's on front cabinet door. Cabinet includes power supply module.

Water pipes in copper and air pipes in Rilsan Pa11. Water fittings outside cabinet 2x1/2" M-BSPP, air 3/8" M-BSPP.

Double cabinet in painted RAL7035 steel, IP66, dimensions: 1100x400x250mm. Power requirements 90-256Vac 50/60Hz. Operating temperature +5°/55°C. Supplied on a special trolley for easy movements

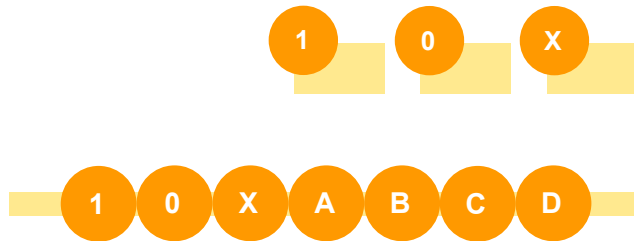
		PRESSURE REGULATOR WITH GAGE	DUAL PRESSURE REGULATOR WITH TWO GAGES	TWO STAGES AIR FILTER	AIR / N2 FLOW METER WITH FLOW REGULATOR	PRESSURE AIR SWITCH	2 WAY ELECTROVALVE	5 WAY ELECTROVALVE	H2O FLOW SWITCH (ON/OFF)	H2O FLOW SWITCH WITH VISIBLE LEVEL (ON/OFF)	H2O FLOW METER (WITHOUT DISPLAY)	H2O FLOW METER (WITH DISPLAY)	H2O THERMOSTAT	H2O TEMPERATURE SENSOR (PT100 / PT1000)	H2O TEMPERATURE SENSOR (4-20 mA)	CABINET HEATER	CAMERA TEMPERATURE SENSOR MANAGEMENT	INTEC OBLO' TEMPERATURE SENSOR MANAGEMENT	DIGITAL LOGIC MODULE WITH DISPLAY / ETHERNET	2 IN ANALOGUE EXPANSION MODULE	FURTHER 2 IN ANALOGUE EXPANSION MODULE	ADDITIONAL INPUT / RELAY MODULE	OSD MODULE	CAMERA MAIN UNIT	RJ45 SOCKETS FOR ETHERNET CABLE	PREDISPOSED FOR SWITCH /FOBOX	USB SERVER	SW FOR MODBUS COMMUNICATION				
OUTEC	CAB11X100L	X	X		X	X			X				X						X													
	CAB11X101A	X	X		X	X					X			X			X		X	X												
	CAB11X101AP	X	X		X	X					X			X			X		X						X							
	CAB11X101AR	X	X		X	X					X			X			X		X						X	X						
	CAB11X101AM	X	X		X	X					X			X			X		X						X	X			X			
	CAB11X101B	X	X		X	X					X			X			X		X	X			X	X								
	CAB11X101C	X	X		X	X						X		X			X		X	X			X	X								
	CAB11X101D	X	X		X	X					X			X			X		X	X			X									
	CAB11X101DP	X	X		X	X					X			X			X		X				X			X						
	CAB11X101DR	X	X		X	X					X			X			X		X				X			X	X					
	CAB11X101F	X	X		X			X			X			X			X		X	X												
	CAB11X102E	X	X		X	X			X					X																		
	CAB11X103E	X	X		X	X			X						X																	
	CAB11X104F	X	X		X	4						4					X			2										4		
CAB11X105F	X	X		2	2						2			2			2			X	X	X										
INTEC	CAB11X200L	X	X		X		X			X			X						X													
	CAB11X202A	X	X		X		X			X			X				X		X	X												
	CAB11X202AP	X	X		X		X			X			X				X		X	X						X						
	CAB11X202PP	X	X		X		X						X				X		X	X	X					X						
	CAB11X202B	X	X		X		X				X			X			X		X	X			X	X								
	CAB11X202D	X	X		X		X				X			X			X	X	X	X	X	X			X	X						
	CAB11X202E										X			X			X	X	X	X			X	X								
	CAB11X292G	X	X		X		X				X			X			X	X	X	X	X	X										
	CAB11X292P	X	X		X		X				X			X			X	X	X	X	X	X										
	CAB11X203A	X	X		X		X				X			X			X	X	X	X	X	X										
	CAB11X203D	X	X		X		X				X			X			X	X	X	X	X	X	X	X								
	CAB11X203L	X	X		X		X				X			X			X	X	X	X	X	X	X	X								
	SONDATEC	CAB11X300B																X	X	X	X		X	X								
CAB11X302B		X		X		X	X							X			X		X	X		X	X									
CAB11X303E		X		X		X		X																								
CAB11X304B		X		X		X					X			X			X		X	X		X	X									
CAB11X304E			X	X		2						X			X																	
CAB11X305F											2			2			X		2	X	X											
CAB11X306A		X		X		X					X			X			X		X	X												
CAB11X306AP		X		X		X					X			X			X		X	X						X						
CAB11X306B		X		X		X					X			X			X		X	X												
CAB11X306E		X		X		X						X		X			X		X	X			X	X								
CAB11X307A		X		X		X					X			X			X		X	X												
CAB11X307BP		X			2						2			2			X		X	X												
CAB11X310E		X			X						X				X				X	X	X					X						
CAB11X320E					X						X				X																	
CAB11X388H		2		2		2		X									2		X	X												
CAB11X392G		X	X		2					2				2			X	X	X	X												
PORTABLE SOLUTION	CAB11X400A	X		X		X				X				X			X		X	X					X							
	CAB11X401A	X		X		X				X				X			X		X	X					2							

\*for control cabinets made of GRP you have to add "P" at the end of the code.

# ACCESSORIES

kit<sup>tec</sup>

Product code configuration table



Code	Water	Water	Cleaning Air	Actuator Air	Barrier Air
A	1x1/2"FD-F90	1x1/2"FD-F90	1x3/8"FD-F90	-	-
B	1x1/2"FD-F90	1x1/2"FD-F90	1x3/8"FD-F90	-	-
C	1x1/2"FD-F90	1x1/2"FD-F90	1x3/8"FD-F90	1x1/4"FD-FD	1x1/2"FD-F90
D	1x1/2"FD-F90	-	1x3/8"FD-F90	2x1/4"FD-F90	1x3/8"FD-F90
E	1x1/2"FD-F90	1x1/2"FD-F90	1x3/8"FD-F90	2x1/4"FD-F90	-
F	1x1/2"FD-FD	1x1/2"FD-FD	1x3/8"FD-FD	-	-
G	1x1/2"F90-F90	-	-	-	-
H	-	-	1x1/4"F90-FD	-	-
I	-	-	1x1/4"F90-FD	-	-
J	1x1/2"F90-FD	1x1/2"F90-FD	1x1/4"F90-FD	-	-
L	1x1/2"FD-F90	1x1/2"FD-F90	2X3/8"FD-F90	-	-
M	1x1/2"FD-FD	1x1/2"FD-FD	1x3/8"FD-FD	2x1/4"FD-FD	-
N	1x1/2"FD-FD	-	1x3/8"FD-FD	2x1/4"FD-FD	1x3/8"FD-FD
O	1x3/4"FD-F90	1x3/4"FD-F90	1x3/8"FD-F90	2x1/4"FD-FD	-
Q	1x1/2"FD-F90	1x1/2"F90-F90 (55cm) 1x1/2"FD-F90	1x3/8"FD-F90	-	-
P	Cooling air		1x1/4"FD-F90		
**C (1m/2m)	1x1/2"FD-FD	1x1/2"FD-FD	1x3/8"FD-FD	1x1/4"FD-FD	1x1/2"FD-FD

\*For air & water connections between Sondatec 1.0+Outec 1.0 to Cabtec ("C") 1m long consider the relevant fittings (\*\*C)



	Type of APPLICATION
ELECTRICAL	1 = HIGH TEMP. CABLE (Analog)
	2 = NO HIGH TEMP. CABLE (Analog)
	3 = HIGH TEMP. + TEMP. SENS. (Analog)
	4 = for CAMTEC "S" + TEMP. SENS.
	5 = HIGH TEMP. CABLE (IP)
	6 = NO HIGH TEMP. CABLE (IP)
	7 = HIGH TEMP. + TEMP. SENS. (IP)
	8 = USB SERVER
	9 = HIGH TEMP. + 2 TEMP. SENS.
AIR & WATER CONNECTIONS	A = Sondatec 1.0 to Cabtec
	B = Sondatec 2.0 to Cabtec
	C = Sondatec 1.0 + Outec 1.0 to Cabtec**
	D = Sondatec 1.0/2.0 + Outec 2.0 to Cabtec
	E = Sondatec 2.0 + Intec to Cabtec
	F = Sondatec 2.0 to Intec
	G = Sondatec 1.0 to Outec 1.0
	H = Airtec to JBX
	I = Acquatec (only air) to JBX
	J = Acquatec (air+H2O) to JBX
	L = Acquatec 1.0 (air+H2O) + Outec 1.0 to Cabtec
	M = Cabtec to Intec
	N = Cabtec to Outec
	O = Sondatec 2.0 + Intec to Cabtec
	P = Sondatec P to Intec / Cabtec
	Q = Sondatec 05X--- to Intec
W = 1x1/2"FD-FD	

	Type of CONDUIT / TERMINATION
ELECTRICAL	0 = Without conduit and termination
	1 = GSWB with MIL-Std connector one-side
	2 = GSWB with MIL-Std connector two-sides
	3 = GSWB without MIL-Std connector
	4 = PVC with MIL-Std connector one-side
AIR & WATER CONN.	A = GSWB / B
	B = R1 / SS316
	C = R1 / B
	D = R1 / SS304

Type of reinforcement:  
GSWB = Galvanized steel wire braided  
R1 = Wire braided reinforced

Type of termination:  
B = Nichel plated brass

	LENGTH Cables & Pipes
A	A = 1 m
B	B = 2 m
C	C = 3 m
D	D = 4 m
E	E = 5 m
F	F = 6 m
G	G = 7 m
H	H = 8 m
I	I = 9 m
L	L = 10 m
M	M = 11 m
N	N = 12 m
O	O = 13 m
P	P = 14 m
Q	Q = 15 m
S	S = 17 m
V	V = 20 m
Z	Z = 21 m
Y	Y = 25 m
W	W = 1,25 m

**VERSION**

IS IDENTIFIED WITH PROGRESSIVE NUMBERING 1, 2, 3, 4, 5 ... FOR CHANGES TO THE MODEL CLASSIFIED WITH 0

CONNECTION KIT



## ACCESSORIES

**TCOXHT0001**



High temperature special cable for video, power and data 1xRG178 + 2x18AWG + 4x22AWG/ST-FEP-GS-BI (price for meter).

**TDAU7928A**



Four Cat5e 24AWG Bonded-Pairs solid bare copper conductors, FEP insulation, industrial grade oil and gas resistant, FEP jacket.

**KIT10X11D0**

Electrical signal interconnection kit cable, composed by high temperature cable consisting of 1 coax RG178 + 2x18AWG + 4x22AWG/ST-FEP-GS-BI with overall shield tinned copper braid. Complete with MIL-STD connector one side. Protected inside a flexible galvanized steel wire braided. Length = 4m.

**KIT10X13B0**

Electrical signal interconnection kit cable, composed by high temperature cable consisting of 1 coax RG178 + 2x18AWG + 4x22AWG/ST-FEP-GS-BI with overall shield tinned copper braid. Protected inside a flexible galvanized steel wire braided. L = 2m.

**KIT10X21B0**



Electrical signal interconnection kit cable. Complete with MIL-STD connector one side. Protected inside a flexible galvanized steel wire braided. Length = 2m.

**KIT10X31L0**

Electrical signal interconnection kit cable, composed by high temperature cable + temperature sensor cable. Complete with MIL-STD connector one-side. Protected inside a flexible galvanized steel wire braided. Length = 10m.

**KIT10X41F0**

Electrical signal interconnection kit cable for CAMTEC "S & P" series, complete with cable for temperature sensor PT100. Supplied with MIL-STD connector one side. Protected inside a flexible galvanized steel wire braided. Length = 6m.

**KIT10X53D0**

IP electrical signal interconnection kit cable, composed by high temperature cable. Protected inside a flexible galvanized steel wire braided. Length = 4m.

**KIT10X71E0**

IP electrical signal interconnection kit cable between camera and JBX/CABTEC, composed by Ethernet high temperature cable and temperature sensor (PT100/4-20mA) cable. Supplied with MIL-STD connector one side. Protected inside a flexible galvanized steel wire braided. Length = 5m.

**KIT10X71L0**

IP electrical signal interconnection kit cable between camera and JBX/CABTEC, composed by Ethernet high temperature cable and temperature sensor (PT100/4-20mA) cable. Supplied with MIL-STD connector one side. Protected inside a flexible galvanized steel wire braided. Length = 10m.

**KIT10X91D0**

Electrical IP signal interconnection kit cable, composed by high temperature cable + 2 cables for double temperature sensor. Complete with MIL-STD connector one-side. Protected inside a flexible galvanized steel wire braided. Length = 4m.

**KIT10XBAL0**



Kit flexible hoses for hydraulic/pneumatic connection between Sondatec 2.0 to Cabtec, composed by: 2x1/2"FD-F90 + 1x3/8"FD-F90, BSPP standard. Protected inside a galvanized steel wire braided with nichel plated brass terminations. Length = 10m.

**KIT10XCAD0**

Kit flexible hoses for hydraulic/pneumatic connection between Sondatec 1.0+Outec 1.0 to Cabtec, composed by: 3x1/2"FD-F90 + 1x3/8"FD-F90 + 1x1/4"FD-FD, BSPP standard. Protected inside a galvanized steel wire braided with nichel plated brass terminations. Length = 4m.

**KIT10XCAL0**

Kit flexible hoses for hydraulic/pneumatic connection between Sondatec 1.0+Outec 1.0 to Cabtec, composed by: 3x1/2"FD-F90 + 1x3/8"FD-F90 + 1x1/4"FD-FD, BSPP standard. Protected inside a galvanized steel wire braided with nichel plated brass terminations. Length = 10m.

FOR DIFFERENT LENGTHS FROM THE VALUES DETAILED, REFER TO THE PREVIOUS TABLE.

ACCESSORIES

## ACCESSORIES

**KIT10XDAA0**



Kit flexible hoses for hydraulic/pneumatic connection between Sondatec 1.0/2.0 +Outec 2.0 to Cabtec, composed by: 1x1/2"FD-F90 + 2x3/8"FD-F90 + 2x1/4"FD-90, BSPP standard. Protected inside a galvanized steel wire braided with nichel plated brass terminations. Length = 1m.

**KIT10XDFA0**



Kit flexible hoses for hydraulic/pneumatic connection between Sondatec 1.0/2.0 +Outec 2.0 to Cabtec, composed by: 1x1/2"FD-F90 + 2x3/8"FD-F90 + 2x1/4"FD-90, BSPP standard. Protected inside a galvanized steel wire braided with nichel plated brass terminations. Length = 6m.

**KIT10XEAL0**



Kit flexible hoses for hydraulic/pneumatic connection between Sondatec 2.0+Intec 1.0 to Cabtec, 2x1/2"FD-F90 + 1x3/8"FD-F90 + 2x1/4"FD-FD, BSPP standard. Protected inside a galvanized steel wire braided with nichel plated brass terminations. L= 15m.

**KIT10XEBE0**



Kit flexible hoses for hydraulic/pneumatic connection between Sondatec 2.0+Intec to Cabtec, composed by: 2x1/2"FD-F90 + 1x3/8"FD-F90 + 2x1/4"FD-FD, BSPP standard. Protected inside a wire braided reinforced and cover in black, oil and environment resistant synthetic rubber with AISI316L Stainless Steel terminations. Length = 5m.

**KIT10XHAL0**



Kit flexible hoses for hydraulic/pneumatic connection between Airtec to JBX, composed by: 1x1/4"FD-F90, BSPP standard. Protected inside a galvanized steel wire braided with nichel plated brass terminations. Length = 10m.

**GFA13X100**



Double stage compressed air filter unit for temperature up to 65°C endowed with pressure regulator and manometer.

**GFA13X001**



Compressed air filter unit, with three filtering stage up to 0,01 µm, complete with pressure regulation unit and pressure gauges.

**GFA13X004**



Compressed air filter unit, with three filtering stage up to 0,01 µm, complete with adjustable pressure for air instruments, range from 0.5 to 8 bar. Attack 1/4". Aluminium body, pressure regulation unit and pressure gauges.

**C0.1XGFA13X100**



0.01 µm filter element for air filter assembly GFA13X100.

**T4344-01**



Filter cardrige 0,01 µm.

**T4338-04**



Filter cardrige 5 µm 4338-04.

FOR DIFFERENT KIT LENGTHS FROM THE VALUES DETAILED, REFER TO THE PREVIOUS TABLE.

## ACCESSORIES