NEW
RELIABILITY TECHNOLOGIES

THERMAL IMAGING SYSTEM
BALTECH TR-01800 ZORRO

VIDEO MODULE
3D

IR DETECTOR
640x480

TEMPERATURE RANGE
-40ºC +1200ºC

ZORRO
BALTECH TR-01800

15 YEARS
with you
2000-2015

WE ARE FIRST ON THE MARKET!

THE NEW THERMAL IMAGING SYSTEM BALTECH TR-01800 ZORRO IS A CUTTING-EDGE THERMAL IMAGING TECHNOLOGY PROVIDING VIDEO AND THERMAL IMAGING IR-DIAGNOSTICS WITH 3D VIDEO MODULE, FOLDABLE LCD OR LENS.

3D video module is a cutting-edge technology and the company BALTECH is the first company, which provides you these solutions in a delivery set with IR-cameras. 3D video module increases your possibilities in the thermography. Now by connection to 3D video module you can perform thermal imaging according to the strategy **«Without barriers»**. A diagnostian can see even the most inaccessible objects, what makes thermography safer for users.

This system provides powerful assistance for thermographers to have the most efficient instrument for maintenance inspections, good solution for scheduled technical inspection and energy audit.

BALTECH TR-01800 Zorro has a wide temperature measurement range (-40°C…+1200°C).

IR-detector with resolution 640x480 allows using the thermal imaging cameras in all industries and by inspection of enclosing structures. High resolution and **P-O-P function (Picture on Picture)** allow performing proper thermography and detecting all possible defects by any users.
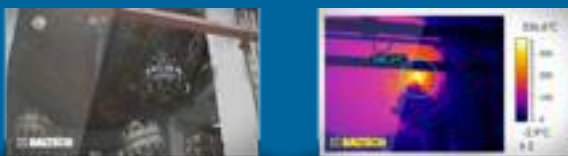
FEATURES:

- High resolution of thermogramms 640x480
- Wide temperature measurement range -40… +1200°C
- 3D video module Zorro
- Auto/Motor focus for one-hand operation
- Bright LED light, Laser pointer
- Built-in digital camera
- High accuracy temperature measurement
- Folding and 270° rotatable display
- 60sec voice annotation
- Interchangeable IR lens
- Scalable P-O-P and Thermal fusion
- High-capacity image storage (up to 5600 IR images)
- Real-time thermal video transfer to PC via USB
- Analysis software BALTECH-Expert

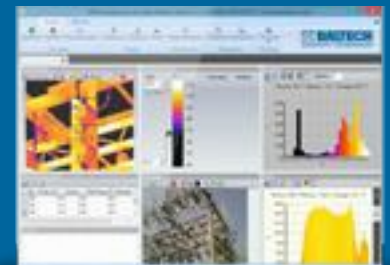## THERMAL IMAGING AND PHOTOGRAPHIC CAMERA - TWO IN ONE

With the thermal imaging system BALTECH TR-01800 Zorro you can make high quality thermogramms with resolution 640x480 pixels as well as photos with a built-in digital camera. Very often one operator makes thermography (object diagnostics) and another operator performs detecting defects with the program BALTECH-Expert.
Simultaneous viewing a photo of the object and its thermal image taken from one angle, greatly facilitates and accelerates the process of diagnostics.

EXCELLENT IMAGE QUALITY AND HIGH-CAPACITY IMAGE STORAGE

State-of-art uncooled FPA allows locating temperature differences with a sensitivity level 0,06°C. This allows you to record clear images of objects and see all the small details on a thermal heating spot. Built-in and easily replaceable SD memory card 8GB lets you store up to 5,600 images in standard radiometric format JPEG.

All images with measurement results and voice annotations (up to 60 sec for each thermogramm) are stored in the interchangeable card and easily transferred to a PC with the software BALTECH-Expert.

FOR WORK AND REST!

NEW MULTIMEDIA 3D VIDEO MODULE ZORRO IS THE MOST USERFRIENDLY VIDEO MODULE FOR DIFFERENT 3D FORMATS.

The combination of multimedia thermography with BALTECH TR-01800 Zorro and home pleasure from watching 3D video with superb image quality and excellent stereo sound is possible now with the thermal imaging system BALTECH TR-01800 Zorro. You can use 3D video module Zorro and immerse yourself in a fantastic new world thanks to high-contrast display, low weight, diopter customization and maximum comfort.

ORIGINAL DESIGN OF THE VIDEO MODULE ZORRO

allows you to experience the full range of possibilities of a virtual world: with training videos BALTECH, presentations or manuals, thermal shooting in bright sun. Before all users of thermal imaging cameras had to put special protective lens hoods on screens and displays or protect the screen with hands from sunlight, now it makes no problem. The operator wears glasses and sees a high quality image. If you are on a business trip or on vacation, you can always spend time with our new video module. Low-power discharge of the display unit of the video module and built-in battery allow you to use it without additional charge for several hours.

ADDITIONAL VIDEO MODULE ZORRO

can be used for many professional applications, for example, for hard to reach objects that can be monitored only by remote-controlled quadrocopters. Specifically equipped helicopters of Fire Emergency or Emergency Situations Ministry allow getting a quick overview of the situation and make the right decision.

Delivery set of the thermal imaging system
BALTECH TR-01800 ZORRO

1	Thermal imaging camera TR-01800	1
2	3D video module with accessories	1
3	Rechargeable lithium-ion battery	2
4	Smart charger	1
5	Adapter	1
6	SD-card	1
7	SD-card reader	1
8	USB-cable	1
9	Video cable	1
10	Operation manual	1
11	Operation manual for the software BALTECH-Expert	1
12	Warranty card	1
13	CD with the software BALTECH-Expert	1
14	Transport case	1

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RELIABILITY TECHNOLOGIES

We invite you to the training course TOP-104

«Thermal-imaging method of nondestructive inspection»

The program of the training course TOP-104:

PHYSICAL FUNDAMENTALS OF THERMAL IMAGING
• Physical basis of infrared radiation
• Terminology of IR-diagnostics
• Thermal imaging qualimetry

MEASUREMENT AND ESTIMATION OF INFRARED RADIATION OF OBJECTS
• Problem description for thermal imaging inspection
• Types and composition of thermal imaging equipment.
• Applications.
• Types of defects detected by IR diagnostics
• Energy audit and its purpose.
• Procedure and maintenance cycle.
• Factors affecting inspection accuracy.
• Technical and economic aspects of thermography.

PRACTICAL TRAINING
• Terms of thermal imaging check, procedure of thermal imaging service.
• Adjustment of IR-cameras. Setting of object parameters.
• Features of making thermal images. Practical skills.
• Work with analysis software for IR images.
• Reporting on the results of IR diagnostics.

PRACTICAL TRAINING IS PERFORMED WITH THE USE OF THE FOLLOWING SYSTEMS:
• Thermal imaging cameras BALTECH TR
• INFRARED THERMOMETERs BALTECH TL

Students receive a set of normative and methodological materials as well as a personal training certificate

Timetable of the courses on
WWW.BALTECH.BIZ

Technical specifications of the thermal imaging system BALTECH TR-01800 ZORRO

Item	BALTECH TR-01800 Zorro
Detector Data	
Detector type	Uncooled FPA
IR resolution	640×480
Pixel pitch	25 µm
Spectral range	8~14 µm
Image Performance	
FOV/Min focus distance	24°×18°/ 0.6m (standard), 48°×36°/ 0.3m (optional), 6°×4.5°/ 1,2 m (optional)
IFOV	0,65mrad (24°×18°)
NETD/Sensitivity	< 0.060°C@30°C
Frequency	50Hz/60Hz
Focus	Manual/Motor/Auto
Digital Zoom	1~8× continuous
Visual camera	5.0 mega pixel
Spotlight	10cd/m²
Image mode	Thermal image, visual image, P-O-P, thermal fusion, W-I-W
Image Display	
Viewfinder	0.6" color OLED, with magnification
Display	5", 270° tiltable LCD, 800x480 pixels
Video module	
Video module image:	Two screens with high resolution (each 870 x 500 pixels) Virtual screen size - 40 inches from a distance of 2 m Aspect Ratio 16:9 24-bit color Angle of view 30°
3D support:	Horizontal, vertical interlaced stereo pair Support Frame Packing 720p / 1080p
Diopter correction:	Adjustment of lens power in the range from -5 до +2 for diopters separately for each eye. PD 59-69 mm.
Supported solutions and formats:	HDMI: 640x480p 60Hz, 720x576p 50Hz, 720x480p 60Hz, 1280x720p 50/60Hz, 1920x1080i 50/60Hz, 1920x1080p 50/60Hz, 1920x1080p 24Hz, HDMI 1.4 3D 1080p 24 Hz, HDMI 1.4 3D 720p 60Hz
Compatibility with iPod/iPhone:	Optional accessories are required
Ports:	AV-input : 3,5mm / 4-pin connector for audio / video (PAL / NTSC) Mini-USB charging built-in battery
Measurement	
Temperature range	-40°C...+1200°C
Temperature accuracy	±2°C or ±2% of reading
Measurement correction	Auto/Manual
Spot meter	4 adjustable spots
Area	3 adjustable boxes with max./min./avg temperature value
Line profile	Vertical/Horizontal
Isotherms analysis	Capture high/low temperature/interval
Delta T	Yes
Emissivity correction	Adjustable from 0.01 to 1.0 or selected from list of materials
Alarm	Voice, color
Dew point alarm	Yes
Color Pallets	12 pallets
Image adjustment	Adjust contrast and brightness auto/manual
Setting function	Date/time, temperature unit °C/°F/K, language
Background temperature correction	Auto
Atmospheric transmissivity correction	Auto
Languages	10 Languages (English, French, Italian, German, Spanish, Portuguese, Russian, Korean, Japanese, Simplified Chinese & Traditional Chinese)
Image Storage	
Storage type	Built-in flash card,8G SD card, up to > 5600 radiometric JPEG images
Voice annotation	60s voice record, stored with per image via built-in microphone.
Periodic image storage	User defined, 10s at least
Laser Point	
Grade/Type	Class 2, 1mW/635nm Red
Power System	
Battery type	Rechargeable and replaceable li-lion battery
Battery operating time	3 hours
Charging System	In camera, AC adapter, car charger
AC supply	110~240V AC, 50/60Hz, 9~12V DC output
Power saving	Auto shutdown (user defined)
Environment Parameters	
Operation temperature	-20°C...+50°C
Storage temperature	-40°C...+70°C
Humidity	≤95% (Non-condense)
Encapsulation	IP54 (IEC60529)
Shock	25G, IEC60068-2-29
Vibration	2G, IEC60068-2-6
Physical Data	
Weight	≤1.3Kg (with battery and standard lens)
Size, L x W x H	200*117*127mm
Interfaces	
USB	Radiometric images transfer to and from PC
Video output	CVBS
Audio output	Yes
Power	Yes
Tripod	1/4"-20

Technical characteristics can be changed without notice. By ordering you can choose a color of the device case: grey, blue, green or deep red. This quotation is valid for wholesale buyers.

We retain the right to make changes for improvement without notice

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