



TRACKING DOWN A FIRE.
THE THERMAL IMAGING CAMERAS DRÄGER UCF® 1600
AND DRÄGER UCF® 3200.

DETECTION
PERSONAL PROTECTION
DIVING TECHNOLOGY
SYSTEM TECHNOLOGY
SERVICES

Drägersafety



ST-10176-2006

Dräger Safety – Helping to keep you in the picture.

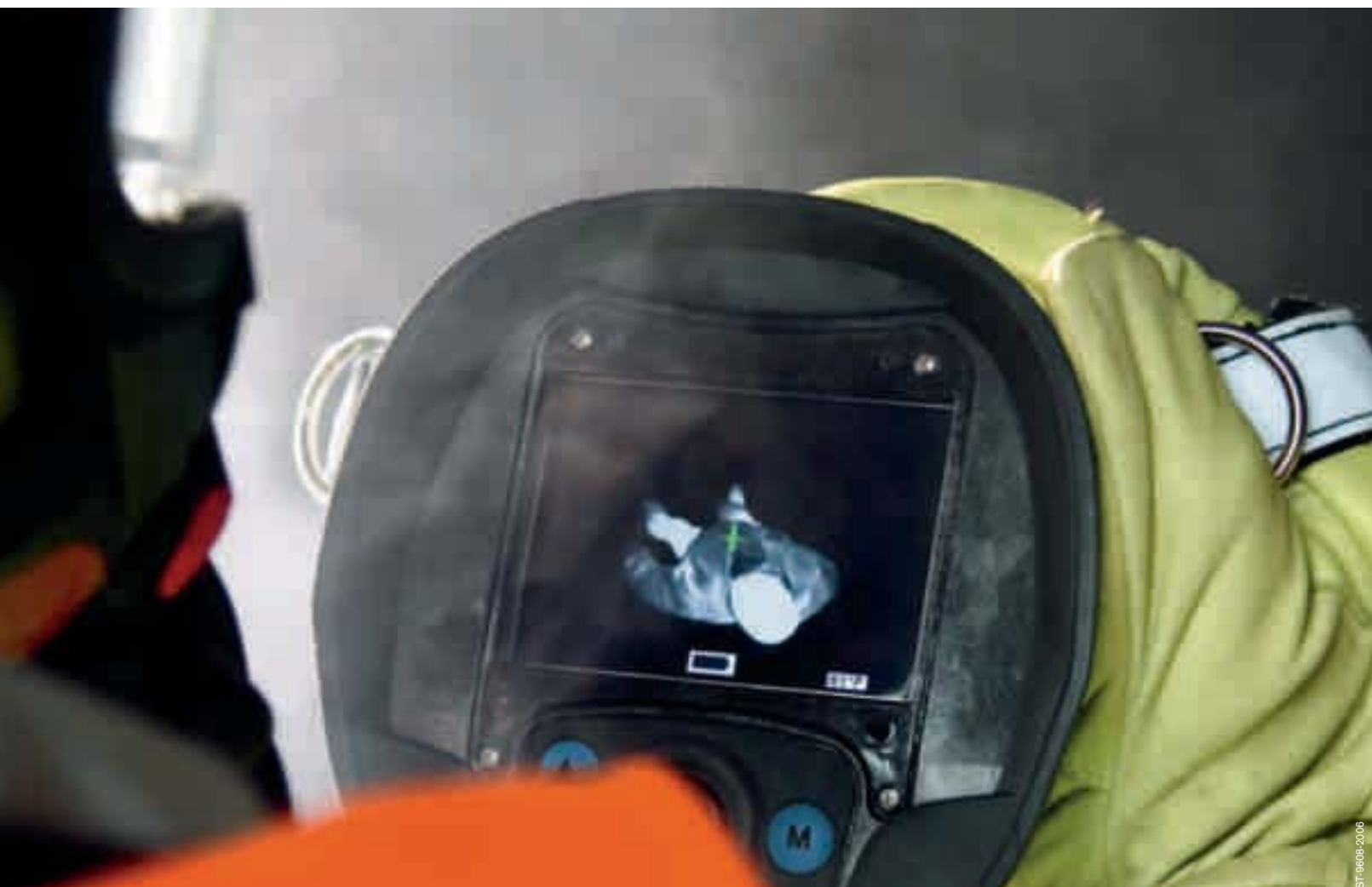
HAVING AN OVERVIEW AND ORIENTATION ARE ESSENTIAL FOR SUCCESSFUL FIRE-FIGHTING. FIRE, SMOKE AND DARKNESS MAKE YOUR ORIENTATION DIFFICULT. SO IT IS GOOD TO BE ABLE TO RELY ON DRÄGER SAFETY'S TECHNOLOGY.

Expecting the unexpected, being prepared for the worst, and taking nothing for granted. These are the hard realities of fire-fighting. So give yourself a real advantage: with tried and tested safety technology from Dräger Safety. After all, when it comes down to it, there are only two things you can rely on: your team and your equipment.

Even before you need Dräger Safety's technology to prove its worth in the field, you can be sure it has already done so in our test laboratory. That's where Dräger Safety's

products undergo a baptism of fire in the form of a comprehensive battery of test series. Every single detail has to meet the highest quality requirements. After all, in a fire lives can depend on it.

It is no surprise that all over the world security forces, fire brigades and rescue organisations prefer to place their trust in Dräger Safety's products. They have good reason to.



ST-9608-2006

The thermal imaging camera is an important part of modern fire-fighting equipment. It will help you to track down a fire's source and smouldering fires in dark and smoke-filled rooms as well as any remaining embers. And if you are searching for a missing person, the thermal imaging camera saves lives by detecting body heat. Its uses range from fire-fighting, situation assessment and fire watch, to training and special applications, such as in conjunction with the use of dangerous substances.

Whatever the case, it needs to be able to withstand a lot. Heat, water, steam and the occasional bump against a doorframe or

other object are all in a day's work for a thermal imaging camera. Not many can stand the heat – but Dräger Safety's cameras can.

The new Dräger UCF® 1600 and Dräger UCF® 3200 combine up-to-the-minute technology with the advantages of established engineering. You can shake the Dräger UCF® 1600 and Dräger UCF® 3200, drop it, submerge it in water and still it will just keep on going. So you will always be in the picture and won't be caught by surprise.

The Dräger UCF® 3200 is the more advanced camera with a higher resolution (320x240 pixels) resulting in a more detailed image and providing a larger field of view. All other features are to the same standard as for Dräger UCF® 1600.

And when it comes to service, the Dräger UCF® 1600 and Dräger UCF® 3200 set the standard. Alongside the usual 24-month guarantee, our worldwide service organisation offers you a comprehensive repair and exchange service.

The Dräger UCF® 1600 and Dräger UCF® 3200 - yet 2 quality products from Dräger Safety.



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No matter how hard the going gets, the Dräger UCF® 1600 and Dräger UCF® 3200 will always be by your side.

WHEREVER YOU TAKE IT, AS FAR AS PICTURE QUALITY AND USABILITY ARE CONCERNED, THE DRÄGER UCF® 1600 AND DRÄGER UCF® 3200 SET THE STANDARD. AND DUE TO IT'S LIGHT WEIGHT (ONLY 1,3KG) IT PUTS HARDLY ANY STRAIN ON THE OPERATOR'S SHOULDERS, ARMS AND HANDS. THE CONTROLS ARE BIG ENOUGH TO BE EASILY OPERATED, EVEN WITH HEAVY FIREFIGHTER'S GLOVES. THE DRÄGER UCF® 1600 AND DRÄGER UCF® 3200 CAN BE USED EITHER WHEN STANDING UPRIGHT OR WHEN CRAWLING. SO WHETHER YOU'RE WALKING OR ON ALL FOURS, WITH THE DRÄGER UCF® 1600 AND DRÄGER UCF® 3200 YOU'LL ALWAYS BE ABLE TO SEE WHERE YOU'RE AIMING.

Advantages at a glance:

Ergonomic design:

Offers optimal ease of use with its large and clearly defined keys. The clean lines and smooth surface of the casing mean it is simple to clean. Balanced weight distribution ensures that the Dräger UCF® 1600 and Dräger UCF® 3200 handle well and with its variety of handles, lanyard and straps, it can be carried in several different ways. Because of its reflective carrying straps, the Dräger UCF® 1600 and Dräger UCF® 3200 can always be clearly seen.

Supreme strength:

Exceedingly hardwearing and resistant to vibration, bumps, water and extremes of heat and cold.

Ultra-modern MicroIR® VOx Bolometer technology:

Coverage of a wide dynamic for super-sharp, detailed pictures and outstanding colour quality with transparent colours are only some of the advantages of the MicroIR® VOx Bolometer technology. Two different operating modes are available: the Fire-fighting mode (EI) for extremely high temperatures, and the Normal operating

mode for lower temperature areas. X2 digital zoom and a direct temperature-measuring function round off the standard range of equipment, which offers everything you will need for effective detection of danger zones.

ThermalScan function (optional):

Adjustable temperature-sensitive image colourisation in Normal operating mode helps to track down hidden sources of heat.

Flexible colour palettes:

Range of 6 standard Dräger UCF colour palettes to optimize the display of the thermal images in normal operating mode.

Modular handles (optional):

With or without handle – it's all in hand. Using the transmitter handle you can send infrared pictures from the camera to one of the three optional receivers. With the video/image capture handle it's no trouble at all to save pictures or video sequences. The basic handle, like the other two handles, allows the camera to be used to it's fullest potential even when crawling. The Dräger UCF® 1600 and Dräger UCF® 3200 provide you with the greatest possible flexibility.

Unique battery management system:

The Dräger UCF® 1600 and Dräger UCF® 3200's unique smart cell Li-Ion rechargeable battery with battery management technology means it can be operated for up to 4 hours in the toughest conditions. The amount of capacity left in the battery is displayed by a 5-segment gas gauge throughout its life on the monitor. The optional truck charger can be used to recharge the camera directly at the same time as charging a replacement battery, and works on 12 or 24 volts. (automatic switch)

Standard features and accessories:

The comprehensive range of accessories for the Dräger UCF® 1600 and Dräger UCF® 3200 include three different receivers for the transmitter handle, replacement rechargeable batteries, a stand, adjustable carrying strap, tripod and more. Standard features of the basic kit include, as well as the Dräger UCF® 1600 and Dräger UCF® 3200 camera itself, a strong carry case to ensure safe and comfortable use, a Smart Cell rechargeable battery and a charger.



A typical firefighter: Tough when it gets rough.

Colour palettes



“TempColor” Standard Palette



Autumn Palette



Black/Yellow Palette

STRENGTH AND STATE-OF-THE-ART TECHNOLOGY ARE NOT MUTUALLY INCOMPATIBLE. THE DRÄGER UCF® 1600 AND DRÄGER UCF® 3200 CONTAIN UP-TO-THE-MINUTE SENSOR TECHNOLOGY IN AN INDESTRUCTIBLE HOUSING DESIGNED FOR THE TOUGHEST SITUATIONS.

The Thermal Imaging Cameras Dräger UCF® 1600 and Dräger UCF® 3200 use MicroIR® VOx Bolometer Technology, which means that it can cover a very wide dynamic range. To put it more simply, the Dräger UCF® 1600 and Dräger UCF® 3200 produce super-sharp, detailed and high-contrast thermal images.

An additional highlight of MicroIR® VOx Bolometer technology is the “Transparent Multi Colour” feature. This technology means that hot areas can be marked with transparent colour to show the firefighter where the danger zones are, and the details are still visible under the colour to facilitate accurate and safe on-the-spot decision-making. The camera has two fully automatic modes of operation: Normal and Firefighter (EI) mode, so as to provide the best solution for a variety of operating con-

ditions. Pictures are coloured using the standard “TempColor” palette with up to four colours, in order to accentuate very cold and hot areas within the thermal image. All of this takes place automatically so that the operator is not distracted. In addition to the standard colour palette, in Normal operating mode a further five colour ranges can be individually selected.

The X2 digital zoom means that you can take a closer look at every area of a picture at the push of a button. And the digital temperature gauge allows you to correctly measure the temperature of any object that you aim at, even from the distance. To help you keep a cool head when the heat is on.



It's got everything under control: the Dräger UCF® 1600 and Dräger UCF® 3200.

THE DRÄGER UCF® 1600 AND DRÄGER UCF® 3200 ARE COMPLETE PACKAGES. THE STANDARD KIT PROVIDES YOU WITH EVERYTHING THAT YOU NEED TO MAKE IMMEDIATE USE OF THE CAMERA.

Nevertheless the package can be extended with additional useful accessories, including the three optional camera handles offering different functions. Or the optional truck-charger is also available.

All handles enable you to hold the camera easily, even when crawling. There are optional basic-, video/image capture- and transmitter- handles. The transmitter handle enables wireless transmission of pictures to one of three optional receivers with or without monitor. And so that you know what's going on, even without the camera, the new practical and light handheld receiver can be carried around with you. The video/image capture-handle is capable of saving up to 300 individual pictures or up to 30 minutes of video. Transmission from the handle to PC using a USB connection is easy to do.

Charging principle:

After use the charger recharges and synchronises the Dräger UCF® 1600 and Dräger UCF® 3200's battery without memory effect. The Battery Management System determines its current capacity every time and ensures that the charge level indicator is reliable over the whole life of the battery. The optional truck-charger accepts 12 V or 24 V on-board power and can charge the camera directly at the same time as charging a replacement battery.



ST-10793-2007

Basic-Handle



ST-10774-2007

Truck-charger

for camera and extra battery



ST-10776-2007

Battery-charger



ST-10799-2007

**Adhesive short-
IFU on the display**

Flexibility is its strength.

High resolution LCD colour monitor:

Easy to understand symbols and warnings (e.g. in case of overheating) on the LCD colour monitor indicate the operating status of the camera to the user at all times. The 5-segment-battery gauge indicates the correct battery capacity to the operator at all times, using its intelligent battery management system. In addition to the standard colour palette, five further colour palettes can be individually selected in normal operating mode. Independently of the chosen colour palette, the temperature of a targeted object will be measured exactly and digitally displayed on the monitor in ° C or ° F. The TFT LCD monitor is located behind a replaceable protective guard and thanks to its backlight provides clear and bright pictures at all times.

Clearly laid out control panel:

The on/off button with LED for standby mode and the function keys for X2 zoom and selection of colour palettes are large enough to be used even when wearing heavy firefighter's gloves. The arrow keys for operating the optional ThermalScan function are especially handy.

Optional receiver-stations:

3 receiver stations for display of transmitted pictures of Dräger UCF® 1600 and Dräger UCF® 3200.



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Ergonomics and Visibility:

The variety of carrying options using side straps and handles means that it is possible to use the camera both when standing upright and when crawling. The camera's reflective carrying straps help to ensure optimal visibility.

Modular handles:

You can operate the Dräger UCF® 1600 and Dräger UCF® 3200 with or without a handle. As well as the standard handle, we offer a choice of two optional handles for transmitting or saving pictures. Changing the handles with a thumb wheel is simple and fast.

Looks good from every angle.

Shock- and scratch- resistant infrared protective IR window:

A specially coated protective IR window prevents the lens from being scratched and ensures that you get a clear view. In addition, the camera is designed so that the lens is set back into the casing. This means that it is protected from damage by external forces.

Various adaption possible

For attaching the handles, fixed installation in training galleries and test centers, mounting on a truck or tripod: Due to the integrated mounting thread in the housing the Dräger UCF® 1600 and Dräger UCF® 3200 can be used universally.

Intelligent Battery:

Thanks to its lithium ion smart cell rechargeable battery, the camera can be used for a period of up to four hours. The battery management system shows the exact current capacity with a 5-segment display (gase gauge) during the entire life of the battery. Features of the SmartCell Li-Ion rechargeable battery include that it does not suffer from memory effect and it has a long life-span. The batteries can easily be replaced even when wearing firefighter's gloves.



Robust housing:

The Dräger UCF® 1600 and Dräger UCF® 3200 can withstand firefighting typical mechanical exposure. Even water and dust, typically found where the cameras are used most, cannot do any harm due to its IP 67 classification. Large panels made from flame resistant and shockresistant materials that make up the casing protect the outside of the camera. The sensitive electronics inside are also protected by newly developed, patented internal damping system (IDS).

The colours lead the way.

WHERE YOU USE THE THERMAL IMAGING CAMERA DETERMINES ITS PURPOSE. WHAT DO YOU DO IF AT FIRST GLANCE THE SOURCE OF A FIRE IS NOT VISIBLE, BUT YOU CAN SMELL SMOKE? THAT'S WHERE THE DRÄGER UCF® 1600 AND DRÄGER UCF® 3200 WITH ITS THERMALSCAN (TS) FUNCTION AND CHOICE OF COLOUR PALETTES CAN HELP YOU OUT.

ThermalScan:

Using this function in Normal operating mode (for low to medium temperatures), it is possible to conduct a targeted search with manual colouring for warm and hot areas in the thermal image.

Highlighting these areas using colour with the Dräger UCF® 1600 and Dräger UCF® 3200 is, however, not only an advantage when fighting fire, but also when conducting precautionary tests on machinery, plant equipment, pipes, power supply cables and switch cabinets.

For safety reasons the ThermalScan function is only available in Normal operating mode. When the camera switches to fire-fighting mode, for example if it suddenly logs a heat source, the colour palette automatically switches to "TempColor".

Flexible colour palettes:

Choose between the standard setting and five of the available colour palettes.



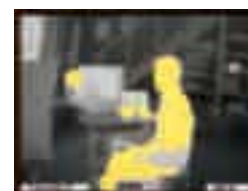
Grey Scale (Black Hot)



Yellow Palette



Grey Scale (White Hot)



ThermalScan



Colour palettes:

Different requirements demand different colour palettes. In Normal operating mode, the "TempColor" standard colour palette displays cold areas below 0° C in blue shades and hot areas above 110° C in transparent yellow / orange shades. In Fire-fighting (EI) mode, hot areas above approx. 300° C are shown in shades of transparent yellow, orange and red. In Normal operating mode, five additional colour palettes are available: Autumn, Black / Yellow, Yellow, Grey Scale and Grey Scale Black Hot. The Grey Scale palettes features seat of fire colourisation in red only. The choice of palette can be made very easily via the control panel. With the additional colour palettes, the display of thermal images can be optimised for the particular purpose of the camera. An inverse display of the thermal image (Grey Scale Black Hot) is, for example, particularly suitable for observing objects with especially low temperatures. And here too, safety comes first: if the camera switches to "fire-fighting (EI) mode" because it has detected a source of heat, the "TempColor" standard palette will be automatically selected to avoid confusion.

The Dräger UCF® 1600 and Dräger UCF® 3200 - yet 2 quality products from Dräger Safety.

Don't leave your safety to chance.
Place your trust in Dräger Safety's products and solutions.



ST-1644-2007

In this brochure we have introduced to you only a small selection of the range of products and solutions we offer in your field. You can find a complete overview on the Dräger Safety website at www.draeger.com.

We will be pleased to provide you with further information upon request.

In addition, Dräger Safety also offers its customers training and seminars on how to optimally use its products.

The participants are given the opportunity to train with the Dräger UCF® 1600 and Dräger UCF® 3200. Further, the comprehensive accessories are also integrated in the training. The training allows the customer to optimally put theory into practice. For more information, please contact the branch nearest you.

Don't hesitate to contact us if you have any questions or comments.



ST-10626-2007

Retractable Lanyard



ST-10624-2007

Shoulder-Strap

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