



## Tracking Down A Fire

Dräger Thermal Imaging Cameras

DRÄGER UCF® 1600  
DRÄGER UCF® 3200

# Dräger – helping to keep you in the picture.



ST-10176-2008

Having an overview and orientation are essential for successful firefighting. Fire, smoke and darkness make your orientation difficult. So it is good to be able to rely on Dräger'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. 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 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 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 companies and rescue organizations prefer to place their trust in Dräger products. They have good reason to.



The thermal imaging camera is an important part of modern firefighting equipment. It will help you to track down a fire's source and smoldering 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 firefighting, 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 door frame or other object are all in a day's work for

a thermal imaging camera. Not many can stand the heat – but Dräger 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 performing. 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 organization offers you a comprehensive repair and exchange service.

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



## 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 its light weight (only 2.8 lbs) 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 color quality with transparent colors 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 colorization in Normal operating mode helps to track down hidden sources of heat.

#### FLEXIBLE COLOR PALETTES:

Range of 6 standard Dräger UCF color 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 its 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 range 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

## COLOR PALETTES



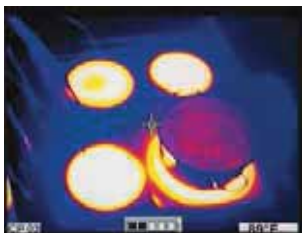
ST-5910-2006

"TempColor" Standard Palette



ST-5911-2006

Autumn Palette



ST-5912-2006

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 Color" feature. This technology means that hot areas can be marked with transparent color to show the firefighter where the danger zones are, and the details are still visible under the color 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 conditions. Pictures are colored using the standard "TempColor" palette with up to four colors, 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 color palette, in Normal operating mode a further five color 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 synchronizes 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-10799-2007

**Basic-Handle**



ST-10774-2007

**Truck-charger**

for camera and extra battery



ST-10779-2007

**Battery-charger**



ST-10799-2007

**Adhesive short-IFU on the display**

## Flexibility is its strength.

### High resolution LCD color monitor:

Easy to understand symbols and warnings (e.g. in case of overheating) on the LCD color 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 color palette, five further color palettes can be individually selected in normal operating mode. Independently of the chosen color 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 color 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 adaptations 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 (gas range) 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 lifespan. 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 shock resistant 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 colors 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 color 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 coloring for warm and hot areas in the thermal image.

Highlighting these areas using color 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 firefighting mode, for example if it suddenly logs a heat source, the color palette automatically switches to "TempColor".

### COLOR PALETTES:

Different requirements demand different color palettes. In Normal operating mode, the "TempColor" standard color palette displays cold areas below 0° C in blue shades and hot areas above 110° C in transparent yellow/orange shades. In Firefighting (EI) mode, hot areas above approximately 300° C are shown in shades of transparent yellow, orange and red. In Normal operating mode, five additional color palettes are available: Autumn, Black/Yellow, Yellow, Grey Scale and Grey Scale Black Hot. The Grey Scale palettes features seat of fire colorization in red only. The choice of palette can be made very easily via the control panel. With the additional color palettes, the display of thermal images can be optimized 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 "firefighting (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.

### FLEXIBLE COLOR PALETTES:

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



Grey Scale (Black Hot)

ST-6915-2006



Yellow Palette

ST-6913-2006



Grey Scale (White Hot)

ST-6914-2006



ThermalScan

ST-6552-2006



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

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 website at [www.draeger.com](http://www.draeger.com).

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

In addition, Dräger 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.



Retractable Lanyard



Shoulder-Strap

ST-9616-2006

ST-9228-2007

ST-10626-2007

ST-10624-2007

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