CorDEX

# 10 THINGS TO CONSIDER BEFORE BUYING AN EX DIGITAL CAMERA


RUGGED AUTHORITY

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# Buying any Ex digital camera is a big commitment, even the simplest of Ex devices can be many times the cost of their non-Ex equivalent.

**Every hazardous area has a cost of ownership, its the cost - both fiscal and virtual - that every operator has to endure, but that cost doesn't mean that there are no limits. You have to ensure your people remain safe, your plant keeps running and your products are profitable.**

With constantly changing standards, reputable manufacturers are constantly battling to provide you with the best product at the best price and that's what you need. You need to make sure that you're getting a high quality Ex camera, that's the best value for money that will serve you well over the longer term.

For some, cost will be the driving force, while for others, key hardware or software features are more important. Whatever Ex digital camera you choose should, of course, offer quality and dependability, along with excellent technical support and service. There are lots of choices in Ex digital cameras, ranging from extremely affordable point-and-shoot models to high end compact digital SLRs. Finding the right fit for your needs can seem daunting. So along with the ten things in this booklet to consider, you'll find it helpful to define what you're going to use the camera for and the work environments you will operate in.

One of the most important items to understand is the term "intrinsically safe", how it is used and what it actually means. Intrinsically safe refers to a method of protection that prevents ignition by spark of thermal means. There are three levels of Intrinsic Safety; ia, ib and ic and tools certified to these levels can be used in Zone 0, Zone 1 or Zone 2 hazardous areas respectively. The most common Zone of operation is Zone 1, this is what you should aim for, Zone 1 certified equipment, not just for today but to give you the choice and flexibility to operate safely and to expand into future areas you may not yet even have.

Quality, maintenance and inspection professionals have a variety of needs that determine the kind of Ex digital camera they should consider. A quality control officer may be interested in the colour of paint being used, so clear, repeatable, high quality imagery is essential. A maintenance crew member may need to document wide area and close in shots in order to document before and after work, so an adaptable lens with both optical and digital zoom is imperative. A safety inspector may need to take shots of Ex rating plates of motors, valves or any number of process equipment located within the hazardous area to ensure compliance, in this case, an optical macro lens is not essential, it's vital to the safety documentation process.

As you can see there is a variety of applications and requirements to consider when choosing your Ex digital camera. At CorDEX Instruments, we want you to be happy with your purchase and as such have created this document to help you work your way through the maze of marketing and get to what we believe are the ten most important points when considering an Ex digital camera.


**CorDEX ToughPIX II**, Ex digital camera with flash ▶


**CorDEX ToughPIX II**, Ex digital camera with flash

1

## Buy a digital camera with the greatest number of pixels/best image quality that your budget can afford. You can always drop pixels if you don't need them, but you cannot create them if they do not exist.

Make the most of every picture you take, with a high resolution digital camera you always have the comfort of digital zoom to back up your optical zoom solution. With a high resolution camera you can enhance that fine detail you may have missed in the field by expanding your image digitally without pixelating your picture. As the saying goes, picture says a thousand words, if your picture is of low resolution and poor quality, that could mean the repair task, quality control or safety review maybe jeopardised or incorrect conclusions made. All because of a low resolution picture obtained from a low resolution camera.

2

## Consider a digital camera that is rugged enough to do the job you need it to do, each day, every day.

You work in a tough environment. Equipment gets bumped and dropped, that's how your job is, it's tough. Your camera needs to be tough too, some Intrinsically Safe digital cameras are similar to smartphones with large colour displays that are easily damaged but very difficult, if not impossible to replace. You need a camera with an armoured screen that can withstand the day to day impacts and abuse without being damaged and letting you down.

3

## Need to document and present your findings to others? A database reporting package will be help you organise and analyse your findings.

Imagine taking thousands of pictures and having no where to store them and no way to analyse them. Your digital camera should be supplied complete with a comprehensive report database package to help you create professional reports and ensure your invaluable data is collated and stored. CorDEX CONNECT for example is simple to use if you need it to be, but fully featured to allow you to grow your reporting and database requirement in line with your job. Need pictures storing automatically for you? No problem. Want to annotate, add comments, boxed, layers, crop and resize pictures and then create a report? No problem and whats best, its free with every CorDEX product.

4

## Your shift doesn't end when your battery dies. A removable, rechargeable battery is a must to get the greatest Return On Investment from your Ex digital camera.

How many non-ex digital cameras do you see with a non-removable battery? Not many. Your Ex digital camera represents a significant investment and you need to make the most of it. Fixed internal batteries cannot be replaced when they fade over time, they cannot be removed for charging and another installed to keep the job going. A removable, rechargeable battery not only gives you the ability to continue shooting pictures for as long as you need, it helps protect your investment by enabling you to replace the only component that will fade over time and use. The battery.

5

## Make sure your Ex digital camera choice is fulfilled by a manufacturer with a strong track record, excellent service and the ability support your needs anywhere in the world.

Developing and manufacturing Ex products is hard enough, supporting them and you properly is even harder. Be sure you select a manufacturer that has years of experience in the Ex digital camera market, a manufacturer who listens to your needs and adapts to them providing you with a reputable product with years of evolution under its belt.

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## Future proof your decision, optional lenses help your camera serve you in many ways, some you haven't even though of yet.

Interchangeable lenses mean that your camera can be adapted to take close up shots that even an optical and high resolution digital zoom cannot resolve. If your work involves taking pictures of Ex rating plates for documentation purposes, a macro lens is an option you should seriously consider.  A solution proven by professional photographers, a macro lens effectively enlarges a close-up target. The full CCD sensor array is used to capture the image, meaning the digital camera can take clear, high resolution shots at a range of 50mm or less.

CorDEX Instruments ToughPIX II for example, is supplied complete with a macro lens to ensure your pictures are right the first time, every time.

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## A picture is worth a thousand words - but only if it's in focus

- Do you need to take images of, for example, rating plates or other machinery detail at distances less than 150mm?
- Have you ever had to retake a close-up image because it was out of focus?

Close-up imaging is a requirement of the industrial digital camera user and most digital cameras are equipped with a ***macro mode*** to achieve this. However, with automatic focussing, the camera may ignore the object you want to photograph and focus on other areas in its field of view instead. To achieve a sharp focus with macro mode you will certainly need an LCD display, good light conditions and lots of patience.

8

## Choose a digital camera that operates in the environment you work in

- Will you be using your camera in winter/cold environments?
- Will you be wearing PPE or gloves?

Working in a hazardous area can be tough: extreme weather, sub-zero temperatures, explosive atmospheres. A digital camera designed for this environment should be simple to operate while wearing specialist protective clothing such as bulky gloves, even those made from fire retardant (FR) material. Your digital camera's power (On/Off) and shutter buttons should be sufficiently spaced so that they do not interfere with one another and be prominent enough to be easy to locate and operate even when wearing heavy gloves. Some smartphone type cameras for example may involve having to remove your PPE gloves each time you need to capture an image simply because the screen may not work or two buttons are selected at the same time.

9

## Low light pictures means a flash is essential

Your camera investment must operate where you need to take a picture, indoor or outdoor, day or night. An on-board, high intensity, flash is essential to ensure your pictures are easily resolvable, even in the darkest of scenarios. A strobe type flash will not only illuminate close up targets, but also wide area shots required for plant inspection and documentation.

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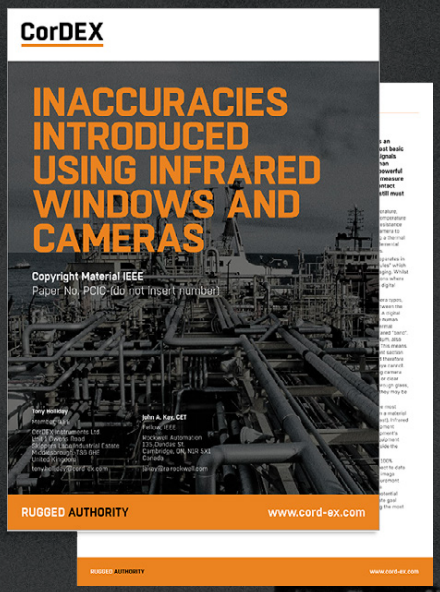
## Don't trust putting your camera investment in your pocket where it can fall out, a neck and wrist strap are essential extras

We would all like to think that a "camera in our pocket" is the way to go, but not in an industrial environment. A slim camera, or even smartphone, simply lodged in your pocket becomes a serious hazard to personnel if accidently dropped from a height not to mention the damage undoubtedly caused to such a device when it hits the ground. A better and more rugged solution is to select a camera with wrist and neck straps making it easy to use, less restrictive on the user and less tiring but most important of all, safer for your personnel.



VIEW OUR CORDEX TOUGHPIX II EX DIGITAL CAMERA ONLINE

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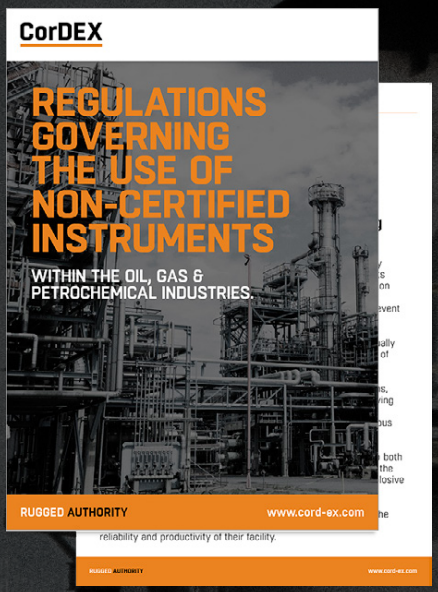


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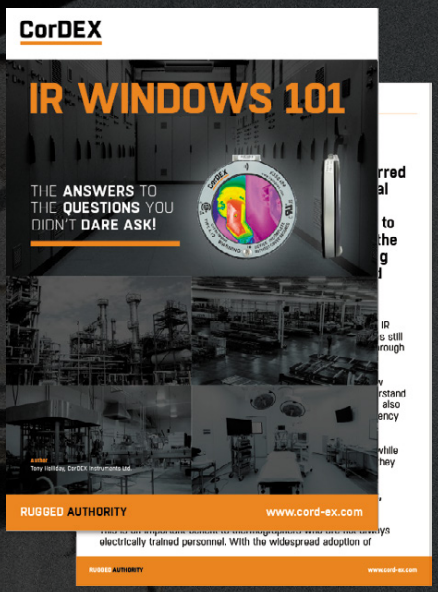


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