Rugged quality, precision imaging
DXR140P-HC | DXR75P-HR detectors
Customer driven leadership in industrial radiography

Some things don’t change: like the need in non-destructive testing (NDT) for reliable, high-quality, fast and easy imaging. But that doesn’t mean we can’t do better. With the next-generation DXR wireless portable detectors Waygate Technologies, has developed a new direct radiography (DR) platform that combines the latest technical advances with extensive customer insight. The result is a range of DR detectors that meet the strictest ISO standards, designed specifically for the demands of different industrial applications. Rugged inside and out, they offer the high quality and fine details an inspection task requires, from corrosion monitoring to weld inspection and everything in between. Easy to transport and easy to operate, they offer a complete solution for safe, high quality imaging, even in the harshest conditions.

A new detector portfolio for high-quality industrial field operation
The new range of DXR detectors provide the high-quality, efficient imaging solution required for industrial field testing. The detectors have a reduced thickness that makes them ideal in situations with limited detector positioning freedom. Choose wired or wireless use for simplified operation that matches your needs under every circumstance.

Rugged inside and out
Dedicated to industrial use, the customer-driven design of the next generation DXR detectors offers a rugged reliability that perfectly fits the criteria for mobile inspection of installations. Each detector comes in a rugged casing that guards against drops, knocks and even radiation. Additional layers of shielding in the detectors better protect them from the harmful effects of radiation, for a longer lifetime and consistent performance. The IP65 and IP67 rating (immersion up to 1 meter depth) ensures these detectors are suitable for all industrial environments.

A tailored flight case makes the package complete, and ready for safe, easy transportation.

High-quality, portable imaging for inspection of field installations:

- Rugged additional shielding for extended lifetime
- Easy to transport and handle
- Choice of wireless or wired use
- Wi-Fi range up to 100 meters
- Two hot-swappable batteries, for longer uninterrupted operation
- Dust tight and waterproof
- Compliant with prevailing standards, including ISO/ASTM
- Minimum backscatter and noise, maximum image quality
- Rhythm Insight RT acquisition and review analysis software
- Powered by Flash! automatic image processing technology

Designed for high quality, efficient imaging in harsh field radiography conditions
DXR140P-HC
Large size, high contrast imager for all-purpose radiography

Ideal for corrosion monitoring in the oil & gas and energy industries, the DXR140P-HC detector offers high contrast with 140-micron pixel resolution. The increased dose sensitivity allows shorter exposure times and faster throughput.

The DXR140P-HC can be used with X-ray as well as isotopes, and is suited for general radiography applications, including (but not limited to):

- Oil & gas and energy, in-service inspection:
  - CUI
  - valve positioning
  - WT measurement
  - pipe support
  - boiler tubes
- Casting inspection
- Aviation MRO
- Military and security
- Structure inspection:
  - concrete, bridges, supports, ...
- Science, art and archeology
- Power line inspection, GIS

DXR75P-HR
Small size, high resolution imager for critical applications

The DXR75P-HR gives you the high, 75-micron pixel resolution required to distinguish fine details for critical applications. The detector supports ISO 17636-2 class B for weld inspection, offering precision imaging that meets the most stringent standards.

The detector's narrow width makes it ideal for imaging in situations with limited detector positioning freedom.

The DXR75P-HR is suited for critical applications, including (but not limited to):

- Weld inspection in oil & gas, energy and aviation:
  - transport pipelines
  - complex structures (spool)
  - boiler tubes
  - fuel pipes
  - pressure tubes
  - pressure vessels and storage tanks
- Shipyard weld inspection
### Technical specifications

<table>
<thead>
<tr>
<th></th>
<th>DXR140P–HC</th>
<th>DXR75P–HR</th>
</tr>
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<tbody>
<tr>
<td><strong>Pixel pitch (micron)</strong></td>
<td>140</td>
<td>75</td>
</tr>
<tr>
<td><strong>Detector size (incl. armor case &amp; battery pack)</strong></td>
<td>460 x 568 x 27mm ((18,1 \times 23 \times 1,1^*))</td>
<td>268 x 358 x 38mm ((10,6 \times 14,1 \times 1,5^*))</td>
</tr>
<tr>
<td><strong>Detector active area</strong></td>
<td>353 x 424 mm ((14 \times 17^*))</td>
<td>168 x 225 mm ((7 \times 9^*))</td>
</tr>
<tr>
<td><strong>Detector weight (incl. armor case &amp; battery pack)</strong></td>
<td>9,2 kgs ((20\ lbs))</td>
<td>4,5 kgs ((9,9\ lbs))</td>
</tr>
<tr>
<td><strong>Scintillator</strong></td>
<td>Gadolinium oxysulfide (GOS)</td>
<td>Gadolinium oxysulfide (GOS Fine)</td>
</tr>
<tr>
<td><strong>Environmental protection detector</strong></td>
<td>IP65 &amp; IP67</td>
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</tr>
<tr>
<td><strong>Operating temperature</strong></td>
<td>-20 °C to +50 °C</td>
<td>-20 °C to +50 °C</td>
</tr>
<tr>
<td><strong>Drop test: 1 m</strong></td>
<td>Passed</td>
<td>Passed</td>
</tr>
<tr>
<td><strong>Grayscale</strong></td>
<td>16 bit</td>
<td>16 bit</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>Wired or wireless ((802.11n/ac))</td>
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</tr>
<tr>
<td><strong>Power supply</strong></td>
<td>DC (+24\ V\ \text{max} 0.8\ A)</td>
<td>DC (+24\ V\ \text{max} 0.8\ A)</td>
</tr>
<tr>
<td></td>
<td>• Wired: power by SCU with tether interface cable</td>
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</tr>
<tr>
<td></td>
<td>• Wireless: powered by battery pack ((2 \times 3.100\ mAh))</td>
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</tr>
<tr>
<td><strong>Operating time</strong></td>
<td>Up to 8 hours for imaging, 9 hours on standby</td>
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</tr>
<tr>
<td><strong>Radiation hardness</strong></td>
<td>&gt; 1 kGy</td>
<td>&gt; 1 kGy</td>
</tr>
<tr>
<td><strong>Compliance</strong></td>
<td>ISO, AS, ASME, JIS and KS</td>
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<tr>
<td></td>
<td>• DICONDE compliant ((ASTM E3147))</td>
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<tr>
<td></td>
<td>• Spatial Resolution Measurement conforms to ASTM E2597</td>
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</tbody>
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Combining 25+ years of experience and patents with next-generation technology, Flash! automatically, quickly and consistently optimizes your digital radiographs.

You get exquisite image quality and comfortable reading, with a faster, smoother workflow that enhances your productivity, maximizes your resources and gives your customers peace of mind.

Next-level imaging

Selecting the right imaging hardware has a major impact on image quality – but the software you choose is just as important!

Flash! uses innovative, proven and leading image processing technology that offers high image quality. Images are made consistent, regardless of the operator, for easier reading and more confident reviewing.

A layered perspective

With Flash! you see more, with a clear vision of both high- and low-density areas, in a single image. Intelligent image processing automatically minimizes noise while maximizing details.

You can read images quickly, viewing all the layers in a glance without manual adjustments. No unsharp masking or edge enhancement creating artefacts. No over- or under-shooting around higher-density areas. No window leveling required. Flash! provides optimal image quality even with minimal contrast. The invisible becomes visible, and the material no longer hides radiographic secrets from you.

Good to go!

Flash! is easy to learn and use, and doesn’t require specialized training. Operator independent, it automatically adjusts to variations in density, materials, geometry, radiation quality, etc. The software saves time and effort for operator and inspector, so you get more out of your human and material resources.