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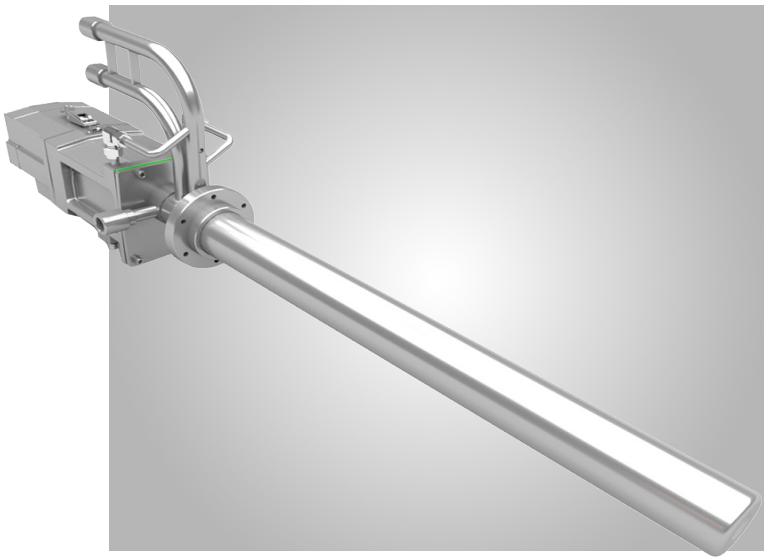


NIR-b-640-EX

Thermal imaging solutions

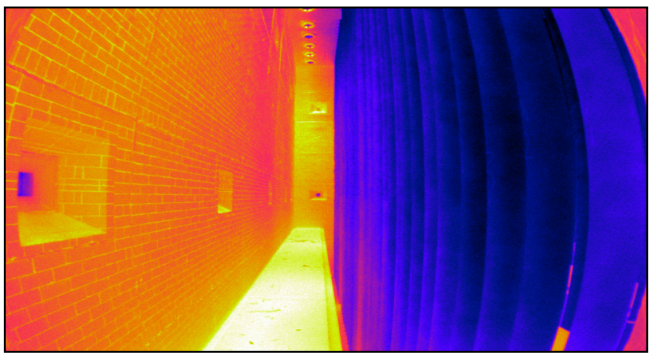
The NIR-b-640-EX is a short wavelength infrared borescope imaging camera for steam reformer and cracker tube continuous temperature measurement, along with furnace optimisation and monitoring.

The NIR-b-640-EX provides a high resolution thermal image with real time continuous high accuracy temperature measurements of both the tube wall and refractory wall surface. The camera has a wide dynamic range and measures temperatures between 600 and 1800 °C (1112 and 3272 °F). This is ideal for applications with a high differential temperature in the field of view such as tube and furnace walls.

The camera is ATEX and IECEx approved to Ex ec IIC T4 Gc for use in Zone 2 gas atmospheres, and CSA Certified for US and Canada to Class I, Division 2, Groups A, B, C, D T4.

ImagePro thermal imaging software has a suite of image analysis and display functions easily identifying hot and cold areas and any uneven heating can be visualised with corrections viewed in real-time.

NIR-b-640-EX is an infrared thermal imaging camera for temperature measurement in steam methane reformers and other hazardous areas.



FEATURES & BENEFITS

- **Highly accurate measurement** enables optimum process control through enhanced thermal imaging.
- **Short-wavelength sensor** makes the measured temperatures less sensitive to any changes in emissivity.
- **Advanced Image Processing Software** to control, monitor, analyse and capture data from the thermal imaging camera with ImagePro.
- **Safe 24 hour, 7 day monitoring** guarantees accurate, reliable data from a safe, remote position without risk to the operators.
- **Live thermal data combined with high-resolution, low noise image** allows real time furnace optimisation and the opportunity to improve energy efficiency without degrading reformer lifetime.

See degrees differently.

SPECIFICATIONS

	NIR-b-640-EX
Measurement Range:	600 to 1800 °C / 1112 to 3272 °F
Spectral Response:	1 µm
Frame Rate:	7.5 Hz (100M Ethernet)
Image Pixels:	640 x 480
Accuracy:	1 %K
Ambient Temperture:	0 to 55 °C (specified) -20 to 55 °C (operating)
Sealing:	IP 65
Repeatability:	1 °C
Data Out:	Digital data over 100M Ethernet
Software:	ImagePro Advanced Image Processing and Controlling Software
Standard accessories:	Field Connection Box (ExHazloc), Control Room Unit (ExHazLoc, associated apparatus), Junction Box (ExHazLoc), software, water cooled/purged mounting and tube
Field of View (Horizontal):	90° x 67.5°, 44° x 33°
Focus Range:	1000 mm to infinity
Probe Length:	305, 609 or 914 mm (12”, 24” or 36”)
Probe Diameter:	60.5 mm (2.38 in.) max.
Mountings:	Choice of 3” ANSI 150 RF Flange & Gasket or PN16 DN80 Flange & Gasket with a 12” standpipe
Dimensions:	254 x 560 x 717 mm (or 1021 mm or 1326 mm); 10” x 22” x 32” (or 44” or 56”)
Power Rating:	24 V dc, 0.6 A; Over-voltage Category II
Weight:	< 25 kg (for 609 mm / 24” version)
Hazardous Area Certification: ***EX Borescopes***	EX NIR-b WG1: Ex ec IIC T4 Gc Tamb=-20 °C to +55 °C (ATEX certificate: CML 22ATEX4011X / IECEx certificate: IECEx CML 15.0042X) EX NIR-b WG2: Class I, Division 2, Groups A, B, C, D; T4 Tamb=-20 °C to +60 °C (CSA certificate for US and Canada: 70080206)

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We are fully committed to Quality Assurance. See all our accreditations at **AMETEK-LAND.COM/QUALITY**

MARCOMS_DOC-00147 NIR-b-640-EX Brochure Rev 1 EN