WHAT'S IN A HAZARD RATING?

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The importance of hazard classifications for NIR process sensors

What are Class/Division Hazard Ratings?

The Class/Division method is an important hazard rating standard used in North America. It dictates what electrical materials can or cannot be used in a workplace area based on the presence and duration or frequency of flammable gas or dust hazards. The longer the material is present, the greater the hazard.

The table below provides definitions for both the Class/Division and Zone System scales.

Hazard Type	Frequency of Occurrence	Class, Division System
GAS	Continuous	Class 1, Division 1
	Intermittent, Periodic	
	Abnormal Conditions	Class 1, Division 2
DUST	Continuous	Class 2, Division 1
	Intermittent, Periodic	
	Abnormal Conditions	Class 2, Division 2

Which NIR is Best?

The IP69-rated BUCHI NIR-Online X-Sential process sensor is the only online NIR sensor on the market rated for Class 2, Division 2 areas, ensuring safety for workplace environments with flammable dust such as grain dust, coal dust, milk powder, metal dust, and sugar dust.

Learn more about BUCHI NIR-Online at www.buchi.com.

Why Does it Matter?

Installing equipment with insufficient Class/Division rating for a particular working environment exposes an area to an unacceptable level of risk for an explosion.

The Class/Division method is the dominant method used North America, with requirements set by the National Electrical Code (NEC) and Canadian Electrical Code (CEC).