

MEX-3 Dynamic Explosion Detector

Explosion Protection System Components

Advantages:

- Rate of pressure rise sensing differentiates between an actual explosion and slow process pressure excursions.
- Internal diagnostics and dual pressure sensors for increased reliability.
- History buffer records pressure data before, during, and after explosion protection system discharge.
- Window™ based software for graphical representation and analysis of recorded pressure data.
- Hygienic design with O-ring seal.
- Stainless steel detector body resists harsh process environments.
- Intrinsically safe design with redundant signal evaluation.
- Field programmable to accommodate process changes.
- Programmable static pressure pre-alarm alerts operator of process problems.
- ATEX Approved and CE Marked.



MEX-3 Dynamic Pressure Detector



FAB-3 Field Connection Box







Application

The IEP Technologies MEX-3 detector and its associated FAB-3 field programmable connection box are designed for demanding explosion protection applications requiring state-of-the-art rate of rise pressure sensing. The ability of the MEX-3 to analyze rate of pressure rise, and to differentiate this from non-explosion pressure excursions, sets it apart from other solid state explosion pressure sensors. The MEX-3 is programmable to accommodate a wide range of hazard and process conditions, including vacuum and positive pressure applications. Additionally, the detector design is suitable for hygienic applications. Typical applications include protection of dust collectors, drying systems, pneumatic conveying systems, and reaction vessels.

Description

The IEP Technologies MEX-3 dynamic explosion pressure detector is designed to be flush mounted to protected process vessels using the MEX-3 stainless steel mounting flange. The FAB-3 Field Connection Box processes the data collected by the MEX-3 detector and generates the appropriate alarm or trouble/fault signal. SmartMEX Evaluation Software can be used to download detector settings, event log, and short term and long term pressure data to a personal computer to enable event investigation – a key feature.

Specifications

Explosion multi-sensor MEX-3.2 (pressure)			Area & Equipment Classification
Pressure range	0 - 2 (4) bar (abs)		CL I, Div. 1 & CL II, Div 1
			II 1/2 D T65°C IP68
			II 1G EEx ia IIC T1...6
			DMT 99 ATEX E 024
Explosion multi-sensor MEX-3.2T (pressure and temperature)			
Pressure range	0 - 2 (4) bar (abs)		CL I, Div. 1 & CL II, Div 1
			II 1/2 D T65°C IP68
Temp. measure range	0 to +160 °C		II 1G EEx ia IIC T1...6
			DMT 99 ATEX E 024
Explosion multi-sensor MEX-3.2F (pressure and flame)			
Pressure range	0 - 2 (4) bar (abs)		CL I, Div. 1 & CL II, Div 1
			II 1/2 D T65°C IP68
Infrared radiation	0 to 100%		II 1G EEx ia IIC T1...6
			KEMA 03 ATEX 1480
Explosion multi-sensor MEX-3.2HT (high temperature application)			
Pressure range	0 - 2 bar (abs)		CL I, Div. 1 & CL II, Div 1
			II 1/2 D T65°C IP68
			II 1G EEx ia IIC T1...6
			KEMA 03 ATEX 1479
Welding flange MEX-3.2 (all variants)			
Dimensions	Ø 130 x 24 mm		
Material	1.4435		
Field connection box FAB-3.2			
Operating voltage	10 - 30 VDC		CL II, Div. 1 & 2
			II 2D T65°C IP68
Max. current consumption	1,5 W		II (1)G [EEx ia] IIC
			KEMA 03 ATEX 1477
Field connection box FAB-3.2 (E)			
Operating voltage	10 - 30 VDC		CL I, Div. 1 & 2
			II 1(2)G EEx d[ia] IIC T6
Max. current consumption	1,5 W		II 2D T65°C IP68
			KEMA 03 ATEX 2478

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