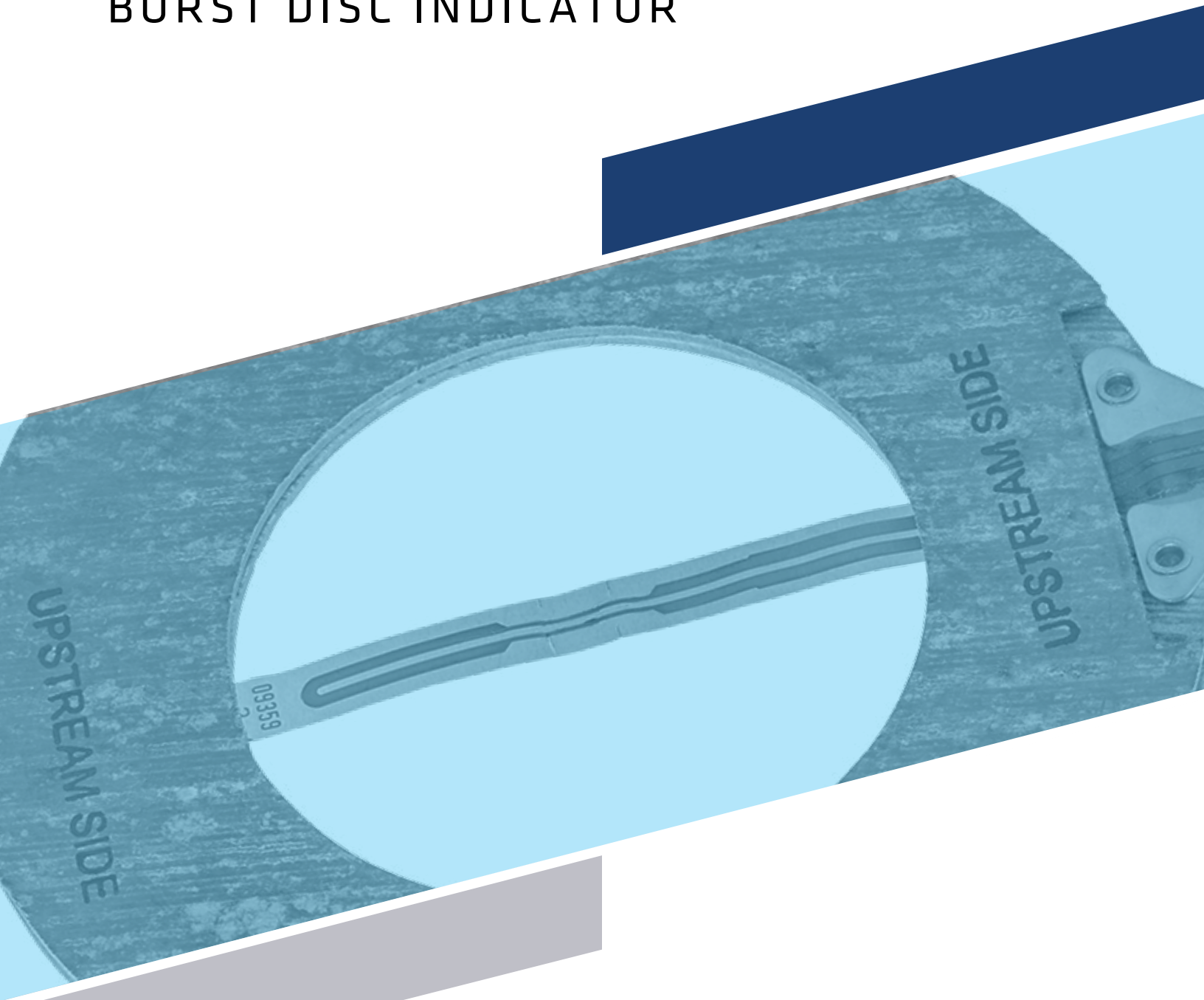




**Continental Disc<sup>®</sup>**  
Corporation

# **B.D.I.<sup>®</sup> Alarm System**

BURST DISC INDICATOR



# B.D.I.® ALARM SYSTEM

The Continental Disc B.D.I. (Burst Disc Indicator) Alarm System reduces downtime, increase efficiency and ensure the safety of your facility. When an overpressure or vacuum condition causes a disc to rupture, the B.D.I. immediately sends a signal to the control room to alert the system operator.

The heart of the Burst Disc Indicator Alarm System is the BDI Alarm Strip. When a disc ruptures, it severs the electrically charged strip, opening the circuit and signaling the control room.

The B.D.I.® Alarm Monitor has been developed as an optional alarm monitor system to notify operators or activate appropriate equipment of an overpressure or vacuum event for a specific B.D.I.® Alarm Strip. Control panels, annunciators, light panels or other signaling devices can be used to warn of a ruptured disc. The B.D.I.® Alarm System is versatile to adapt to a variety of warning devices. Pumps, valves and other systems may also be activated to respond to an overpressure or vacuum situation by the break of a specific B.D.I.® Alarm Strip.

Linking the B.D.I. Alarm Strip to the monitoring system is the B.D.I. Lead Wire Assembly. A two-pin bullet plug protects the terminals at the connecting point against moisture. It is abrasion resistant, flexible, and highly weather-resistant.

Together this system will provide immediate notification of a burst disc to reduce downtime, increase efficiency and ensure the safety of your facility.

## Technical Details

- Maximum current: 50 milliamp
- Maximum voltage: 24 VDC RMS
- Operational Temperature Range: -40 to +400 °F (-40 to +204 °C)
- B.D.I.® Alarm strip is composed of copper conductors adhered to a thin strip of KAPTON® film
- B.D.I.® Alarm Strip and the MTB-700 Alarm Monitor have been certified for use in “potentially explosive atmospheres” according to the requirements of the European Union
- Standard gaskets are asbestos free fiber-bound material

## Features

- Resistant to chemical attack and corrosion
- Usable over a wide range of temperatures
- Easily replaceable upon disc rupture
- Compatible with standard design Continental Disc rupture discs

## Options

- Tantalum conductors available
- Optional gaskets in GYLON® 3500 silica filled PTFE material
- B.D.I.® Alarm Monitor
- Connector: Standard Plug or Bare Leads

# SPECIFICATIONS

Feature	MTB-700	BB-100A	BB-400A
Dry contacts for remote alarms	Yes	Yes	Yes
Output relay type	DPDT Form C	SPDT Form C	SPDT Form C
Relay max current	5 A @ 240 VAC Resistive 5 A @ 24 VDC Resistive 1/8 HP @ 120/240 VAC, 7 A maximum carry current	2 A @ 120 VAC Resistive 1 A @ 120 VAC Inductive 2 A @ 24 VDC Inductive	2 A @ 120 VAC Resistive 1 A @ 120 VAC Inductive 2 A @ 24 VDC Inductive
Intrinsically safe field circuit	Yes	Yes	Yes
Barrier type	galvanically isolated	zener diode	zener diode
Enclosure rating	NEMA 4, 4X, 12, 13	n/a	n/a
Operating temperature range	-4° to +113°F (-20° to +45°C)	-40 to +104°F (-40 to +40°C)	-40 to +104°F (-40 to +40°C)
Reset mode (latching, non-latching)	latching only	either available	either available
Output current to BDI Strip	7 VDC @ 22 MA	6 VDC @ 0.1 MA	6 VDC @ 0.1 MA
Remote master test contacts	Yes	No	No
Remote master reset contacts	Yes	Yes	Yes
Barrier Certifications	FM, IECEx	None	None

Monitor Model	# of Discreet Channels	Audio/Visual Alarm	Input Power	Part Number
MTB-700	2	Yes	24 VDC +/- 2 V	M2A0000V024
			120 VAC 50/60 Hz	M2A0000V120
			240 VAC 50/60 Hz	M2A0000V240
		No	24 VDC +/- 2 V	M2S0000V024
			120 VAC 50/60 Hz	M2S0000V120
			240 VAC 50/60 Hz	M2S0000V240
	4	Yes	24 VDC +/- 2 V	M4A0000V024
			120 VAC 50/60 Hz	M4A0000V120
			240 VAC 50/60 Hz	M4A0000V240
		No	24 VDC +/- 2 V	M4S0000V024
			120 VAC 50/60 Hz	M4S0000V120
			240 VAC 50/60 Hz	M4S0000V240
BB-100A	2	No	115 VAC 50/60 Hz, 230 VAC 50/60 Hz or 12 VDC +/- 2 V	520000300
BB-400A	8	No	115 VAC 50/60 Hz, 230 VAC 50/60 Hz or 12 VDC +/- 2 V	520000400

# SPECIFICATIONS

## Minimum Pressure for Universal B.D.I.

Nominal Size in (mm)	Pressure psig (barg)
1 (25)	15 (1,03)
1 1/2 (40)	10 (0,69)
2 (50)	4 (0,28)
3 (80)	2.5 (0,17)
4 (100)	2.5 (0,17)
6 - 36 (150-900)	1 (0,07)

The UNIVERSAL Low Pressure B.D.I. is available for sizes 1" - 4" for pressures down to 1 psig (0,07 barg)

## Bolting Classes Available for Universal B.D.I.

Size in (mm)	ASME	DIN	JIS
1 - 1½ (25-40)	150# 300# 600#	PN 10/40	2/5K, 10/20K, 30/40K
2 - 3 (50-80)	150# 300# 600#	PN 10/40	2/5K, 10K, 16/20K, 30/40K
4, 6 (100, 150)	150# 300#	PN 10/16, PN 25/40	2/5K, 10K, 16/20K, 30K, 40K
8 - 12 (200, 300)	150# 300#	PN 10, PN 16, PN 25, PN 40	2/5K, 10K, 16/20K, 30K, 40K
14, 16 (350, 400)	150#	PN 10, PN 16	2/5K, 10K, 16/20K, 30K, 40K
18 (450)	150#		5K, 10K, 16/20K
20, 24 (500, 600)	150#	PN 10, PN 16	5K, 10K, 16/20K
28 (700)	150#	PN 10, PN 16	5K, 10K, 16K, 20K
30 (750)	150#		5K, 10K, 16K, 20K
32, 36 (800, 900)	150#	PN 10, PN 16	5K, 10K, 16K, 20K



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