DATA SHEET

BURSTCHECK LINE OF RUPTURE DISC BURST INDICATORS

INTRODUCTION

Rupture discs are often used as primary pressure relief devices and to isolate pressure relief valves. When used as a primary pressure relief device, burst indication is used to provide instantaneous notification of rupture disc activation. When rupture discs are used in conjunction with pressure relief valves, they remove valves from contact with harsh process conditions and helps prevent fugitive emissions. In this application, the ASME code, Section VIII, Div. 1, requires that the space between the disk and the valve must be provided with a suitable telltale assembly capable of detecting a rupture or pin-hole leak. Depending on the device selected, Fike burst indicators can be used to activate alarms, bells, remote annunciators or interfaced with process control systems, so that appropriate safety follow-up measures can be taken.

Fike has a wide range of rupture disc burst indication devices, use this selection guide to determine the best one for your application. Some rupture disc models offer optional "integral" burst indication that is built into the rupture disc assembly on the downstream side.

RUPTURE DISC BURST INDICATOR SELECTION GUIDE

	BurstCheck	BurstCheck Plus	BC2/BC2LP	BCH	Integral
Liquid or Gas Service	Yes	Yes	Yes[2]	Yes	Yes
Process Temperature	400°F (204°C)	400°F (204°C)	500°F (260°C)	350°F (177°C)	350°F (177°C)
Explosion Proof	No	NEMA 7, 9	No	No	No
Intrinsically Safe	Yes[1]	N/A	Yes[1]	Yes[1]	Yes[1]
Weatherproof	NEMA 4	NEMA 4, 7, 9, 13	Yes	Yes	Yes
SRV Isolation[6]	Yes	Yes	No[3]	No[3]	No[3]
Pressure Extremes[2]	10 to 1000 PSIG	10 to 500 PSIG	See Note 5	10 PSIG minimum	See Note 4
Disc Types	All	All	Axius, Atlas SRX, SRL, Poly-SD, MRK, HO, P GD	SR-H, Axius SC, SHX, AD-H TC	SR-H, Axius SC, AD-H TC, AD-H, Lo-V GD[7]

1. When properly installed with an appropriate intrinsic barrier and in accordance with local and national electric codes.
2. Pressure limits may be a function of size and media. Consult factory for other pressures.
3. Will not detect pinhole leakage through the disc, not considered a suitable tell-tale indicator when used alone.
4. Refer to applicable rupture disc model data sheet for limitations.
5. Refer to BC2 table on page 3 or BC2LP table on page 4.
6. Refer to Technical Bulletin TB8105
7. Graphite series rupture discs may be equipped with an integral burst indication device. Please see data sheet R.1.40.01

BURSTCHECK HYGENIC™ (BCH)

DESCRIPTION

The BCH Burst Indicator is specifically designed for use with standard Tri-Clover™ ferrules and clamps. It provides instantaneous notification of rupture disc activation. The indicator consists of a insulated flex-circuit and may have a fluoropolymer diaphragm or actuator strip mounted across a ring with a selected gasket. Upon disc rupture, the BC2's thin fluoropolymer diaphragm or Actuator Strip acts upon the flexible circuit causing the circuit to be physically broken. This open circuit condition can be used to activate alarms, bells, remote annunciators or interfaced with process control systems. This provides process operators with immediate annunciation of an overpressure event so that appropriate measures can be taken.

The circuit conductive loop is protected with Kapton®, providing excellent corrosion resistance. The flexible circuit is physically attached at two locations and is broken in a predetermined pattern. This eliminates the possibility of the conductive loop remaining intact after disc rupture.

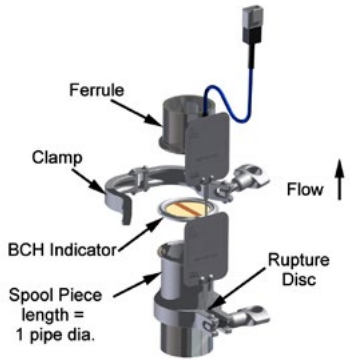
The BCH is installed downstream of the rupture disc.

Note: While similar in appearance, the BCH is not a rupture disc and cannot be used as such. There should be no pressure differential across the BCH.

BCH burst indicator

SPECIFICATIONS

Disc Compatibility:	SR-H, Axius SC, SHX, AD-H TC
Intrinsic Safety:	The BCH is intrinsically safe for Class I, Groups A, B, C, and D when connected through a CSA certified shunt diode safety barrier at levels of 50 mA @ 24 VAC/DC. Maximum resistance across the circuit prior to rupture is 1.0 OHMS. An intrinsic Safety Barrier is available from Fike, P/N 02-8353.
Process Temperature Range:	-40 to 350°F (-40 to 177°C)
Atmospheric Temperature Range:	-40 to 165°F (-40 to 74°C)
Gasket Temperature Range:	*EPDM: -40 to 300°F (-40 to 149°C) *Silicone: -40 to 450°F (-40 to 232°C) *Viton®, *PTFE fluoropolymer: -20 to 450°F (-28 to 232°C) *Note: USP Class 6*
Cable Connection:	The BCH comes with 18 IN of 20 AWG cable equipped with a 3 pin quick disconnect weatherproof receptacle. A lead cable (P/N D3515-115-X) can be purchased in lengths of 10' and 25' with a quick disconnect plug to connect to customer monitoring systems.
Materials of Construction:	Indicator circuit: Copper foil laminated between Kapton® Membrane: PTFE fluoropolymer
Listings:	CSA Certified ATEX Directive 94/9/EC



Schematic of BCH with rupture disc

APPROVALS:

- CSA Certified
- ATEX Directive 94/9/EC

INTEGRAL BURST INDICATOR

DESCRIPTION

The integral burst indicator is built directly into the rupture disc assembly on the downstream side and provides instantaneous notification of rupture disc activation. The indicator consists of a insulated flex-circuit actuator strip mounted across the disc ring with a selected gasket. Upon disc rupture, the normally closed circuit is physically broken. This open circuit condition can be used to activate alarms, bells, remote annunciators or interfaced with process control systems and provides process operators with immediate annunciation of an overpressure event so that appropriate measures can be taken.

The circuit conductive loop is protected with Kapton®, providing excellent corrosion resistance. The flexible circuit is physically attached at two locations and is broken in a predetermined pattern. This eliminates the possibility of the conductive loop remaining intact after disc rupture.

Axius SC with burst indicator

APPROVAL:

- CSA Certified

SPECIFICATIONS

Integral Burst Indicator (BI):	Rupture Disc Option for the following models: SR-H, Axius SC, Lo-V, AD-H-TC, AD-H-BT
Intrinsic Safety:	The Integral BI is intrinsically safe for Class I, Groups A, B, C, and D when connected through a CSA certified shunt diode safety barrier at levels of 50 mA @ 24 VAC/DC. Maximum resistance across the circuit prior to rupture is 1.0 OHMS. An intrinsic Safety Barrier is available from Fike, P/N 02-8353.
Process Temperature Ranges:	-40° to 350°F (-40° to 177°C)
Atmospheric Temperature Range:	-40° to 165°F (-40° to 74°C) Temperature limits may be further restricted by specific disc model/material selections
Cable Connection:	The Integral BI comes with 18 IN of 20 AWG cable equipped with a 3 pin quick disconnect weatherproof receptacle. A lead cable (P/N D3515-115-X) can be purchased in lengths of 10’ and 25’ with a quick disconnect plug to connect to customer monitoring systems.
Burst Indicator Materials of Construction:	Indicator circuit: Copper foil laminated between Kapton
Listing:	CSA Certified