

## 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
<b>Liquid or Gas Service</b>	Yes	Yes	Yes <sup>2</sup>	Yes	Yes
<b>Process Temperature</b>	400°F (204°C)	400°F (204°C)	500°F (260°C)	350°F (177°C)	350°F (177°C)
<b>Explosion Proof</b>	No	NEMA 7, 9	No	No	No
<b>Intrinsically Safe</b>	Yes <sup>1</sup>	N/A	Yes <sup>1</sup>	Yes <sup>1</sup>	Yes <sup>1</sup>
<b>Weatherproof</b>	NEMA 4	NEMA 4, 7, 9, 13	Yes	Yes	Yes
<b>SRV Isolation<sup>6</sup></b>	Yes	Yes	No <sup>3</sup>	No <sup>3</sup>	No <sup>3</sup>
<b>Pressure Extremes<sup>2</sup></b>	10 to 1000 PSIG	10 to 500 PSIG	See Note 5	10 PSIG minimum	See Note 4
<b>Disc Types</b>	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 <sup>7</sup>

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

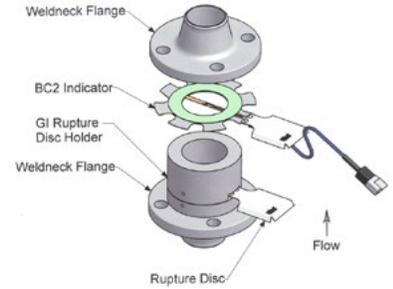
# BURSTCHECK 2™ (BC2)

## DESCRIPTION

The BC2 is a rupture disc burst indicator that uses a break in electrical continuity to signal the burst of a rupture disc. The indicator consists of a insulated flex-circuit and may have a fluoropolymer diaphragm or actuator strip mounted across a ring with integral gaskets. Upon disc rupture, the BC2's thin fluoropolymer diaphragm and 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.

*Note: While similar in appearance, the BC2 is not a rupture disc and cannot be used as such. There should be no pressure differential across the BC2.*



**BC2 burst indicator**

## BC2 SPECIFICATIONS

Disc Compatibility: Axius, Atlas, SRX, SRL, Poly-SD, MRK, HO, P  
 Sizes: 1/2 thru 24 IN  
 ANSI, DIN, JIS, etc.  
 Contact Arrangement: Normally closed  
 Intrinsic Safety: The BC2 is intrinsically safe for Class I, Groups A, B, C, and D when connected through a CSA certified shunt diode safety barrier. Maximum resistance across the circuit prior to rupture is 2.0 OHMS. Intrinsic Safety Barrier available from Fike, P/N 02-8353.  
 Electrical Rating: 24 VAC/DC @ 50mA  
 Materials of Construction: Indicator circuit: Copper foil laminated between Kapton® Membrane.  
 2 & 3 inch: PFA fluoropolymer with Nylon connector  
 4 in and up: PTFE Fluoropolymer with Nylon connector  
 Support Frame: 316 SST Gasket: Compressed arimide fiber in nitrile binder  
 Process Temperature Range: -40 to 500°F (-40 to 260°C)  
 Atmospheric Temperature Range: -40 to 165°F (-40 to 74°C)  
 Wiring: Two conductor 20 AWG with shield and 20 AWG drain Blue PFA jacket  
 Cable Connection: The BC2 comes with 18 IN of 20 AWG cable equipped with a 3 pin quick disconnect weatherproof receptacle. A lead cable can be purchased in lengths of 10' (Fike P/N D3513-115-10) and 25' (Fike P/N D3513-115-25) with quick disconnect plug to connect to customer monitoring systems.  
 Listings: CSA certified  
 ATEX Directive 94/9/EC  
 IECEx INE 12.0004X

**APPROVALS:**

- CSA Certified
- ATEX Directive 94/9/EC
- IECEx INE 12.0004X



## CORRESPONDING RUPTURE DISC MINIMUM BURST PRESSURES

Nominal Size (IN)	.50 (DN15)	.75 (DN20)	1 (DN25)	1.50 (DN40)	2 (DN50)	3 (DN75)	4 (DN100)	6 (DN150)	8 (DN200)	10 (DN250)	12 (DN300)	14 (DN350)	16 (DN400)	18 (DN450)	20 (DN500)	24 (DN600)
	PSIG (BARG)	36 (2.48)	34 (2.34)	10 (.69)	8 (.55)	8 (.55)	7 (.48)	7 (.48)	6 (.41)	4.5 (.31)	3.6 (.25)	3 (.21)	2.6 (.18)	2.3 (.16)	2 (.14)	1.8 (.12)

*Note: Any application where the burst pressure falls below the values on this table will need to be evaluated by Fike.*