



# KILLARK

## KB DRAINS / BREATHERS

### ATEX/IEC Ex Certified



**KB1-4X**



**KB1BCEN**



**KB1DCEN**

Class I, Div. 1 & 2, Groups B<sup>Ⓛ</sup>, C, D  
 Class I, Zones 1 & 2, Groups IIB + H2<sup>Ⓛ</sup>  
 Class II, Div. 1 & 2, Groups E, F, G  
 Class III, Enclosure Type 3, 4 & 4X<sup>Ⓛ</sup>  
 II 2 G Ex d IIB IIC<sup>Ⓛ</sup> T226°C Gb IP44  
 Ta = -50°C to +60°C

UL Listed - File E10514  
 cULus Certified - File LR11716  
 FM Approved Certified File 25215  
 IEC Ex CSA 10.0007U  
 SIRA 10ATEX1351U



- Ⓛ See chart below for suitability
- Ⓛ Warning – not for use in acetylene atmosphere
- Ⓛ Enclosure Type 4 & 4X for KB1-4X and KB1-4XS6 only

### Applications

When installed in the top of an enclosure, these fittings act as breathers which allows air flow through the enclosure. Bottom installations permit water from condensation to drain from the enclosure continuously. The drains and breathers are offered in a variety of hub sizes, 1/4, 3/8 & 1/2 inch NPT and metric M16 & M20.

### Body Material

Aluminum with optional stainless steel or brass available for special orders.

For use in enclosures with a maximum internal volume to 9526 cubic inches or 160 liters.

### Volume

CATALOG NUMBER	THREAD SIZE	BODY MATERIAL	THIRD PARTY	SUITABILITY USA	THIRD PARTY	SUITABILITY CANADA	THIRD PARTY	SUITABILITY ATEX/IEC Ex
KB1BCEN BREATHER KB1DCEN DRAIN KBM20BCEN BREATHER KBM20DCEN DRAIN	1/2 NPT 1/2 NPT M20 M20	ALUMINUM ALUMINUM ALUMINUM ALUMINUM	CSAus CSAus CSAus CSAus	CLASS I GROUPS B, C & D CLASS I, ZONES 1 & 2 GR IIB+H2 CLASS II GROUPS E, F, & G CLASS III ENCL TYPE 3	c CSA c CSA c CSA c CSA	CLASS I GROUPS C & D CLASS I, ZONES 1 & 2 GR IIB CLASS II GROUPS E, F & G CLASS III ENCL TYPE 3	SIRA/GSA SIRA/GSA SIRA/GSA SIRA/GSA	II 2 G Ex d IIC T226°C Gb IP44 <sup>Ⓛ</sup>
KB1-4X KB1-4XS6	1/2 NPT 1/2 NPT	ALUMINUM 316SS	UL CSAus UL CSAus	CLASS I GROUPS B, C & D CLASS I, ZONES 1 & 2 GR IIB+H2 CLASS II GROUPS E, F, & G CLASS III ENCL TYPE 3 TYPE 3, 4 & 4X	c CSA c CSA	CLASS I GROUPS C & D CLASS I, ZONES 1 & 2 GR IIB CLASS II GROUPS E, F & G CLASS III ENCL TYPE 3 TYPE 3, 4 & 4X	N/A	N/A

Note: See Fitting Section for dimensions

## KDE SERIES DRAIN BREATHERS

### Applications

When installed in the bottom of a thin wall enclosure the KDE allows water from condensation to drain continuously out of the enclosure. The drain breathers are installed through clearance holes and held secured with an internal locknut. The silicone external o-ring makes a hose down tight seal.



**KDEGF0M20**



**KDES60M20**

Class I, Div. 2, Groups A, B, C, D  
 Class I, Zone 1 & 2, Ex e / AEx e IIC,  
 A/Ex tb  
 Class II, Div. 1<sup>Ⓛ</sup> & 2, Groups E, F, G  
 Class III, Ambient Temperature Range  
 -55°C to +80°C  
 Enclosure Type 3, 4 & 4X<sup>Ⓛ</sup> IP66

Ex II 2 G D CE 0518  
 Ex e IIC Gb  
 Ex tb IIIC Db IP66  
 Ta = -55°C to +80°C

cULus 2714851  
 CML 15ATEX3028X  
 IECEx QPS 15.0002X  
 Seguridad IEx 15.0154X INMETRO



- Ⓛ Class II Div. 1 Canada only, Div. 2 in the US
- Ⓛ Type 4X in 316 & 304 SS, Aluminum & Nylon Materials

### Features

- Sealing o-ring supplied as standard and suitable for use in a -55°C to +80°C temperature range.
- Variety of thread sizes 1/2 & 3/4 NPT, 1/2 & 3/4 NPSM, M20 & M25.
- Available in 300 series stainless steel, 316 stainless steel, aluminum and 30% glass filled nylon.
- Internal 316 stainless steel locknut supplied as standard. When tighten to the proper torque the joint makes a hose down tight seal for type 4, 4X & IP66 application.

- 303 or 304 stainless steel, 316 stainless steel, brass, aluminum or 30% glass filled nylon.
- Internal locknut 316 stainless steel.
- High temp silicone o-ring

### Materials

MATERIAL / CATALOG NUMBER					
ENTRY THREAD SIZE & TYPE	GLASS FILLED PA6 NYLON	ALUMINUM	316 STAINLESS STEEL	BRASS	NICKEL PLATED BRASS
M20	KDEGF0M20	KDEAL0M20	KDES60M20	KDEBR0M20	KDEBR1M20
M25	KDEGF0M25	KDEAL0M25	KDES60M25	KDEBR0M25	KDEBR1M25
1/2" NPT	KDEGF0050	KDEAL0050	KDES60050	KDEBR0050	KDEBR1050
3/4" NPT	KDEGF0075	KDEAL0075	KDES60075	KDEBR0075	KDEBR1075

Note: Other thread forms and materials available upon request.

# ENCLOSURES

KB/EXH SERIES



## KB SERIES FLAME ARRESTOR

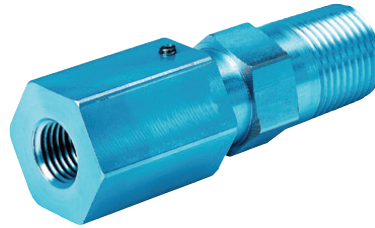
### FEATURES-SPECIFICATIONS

#### Applications

The flame arrestor provides a means to connect gas analysis equipment and electro pneumatic devices' pipe or tubing system through the wall of an explosion-proof enclosure.

**Body Material:** 6061-T6 series aluminum provided as standard. Optional stainless steel or brass for special orders.

### ATEX/IEC Ex Certified



Class I, Div. 1 & 2, Groups B<sup>Ⓢ</sup>, C, D  
 Class I, Zones 1 & 2, Groups IIB + H2<sup>Ⓢ</sup>  
 Class II, Div. 1 & 2, Groups E, F, G  
 Class III, NEMA Type 3, 4<sup>Ⓢ</sup>  
 II 2 G Ex d IIB IIC<sup>Ⓢ</sup> T3 Gb IP66<sup>Ⓢ</sup>  
 Ex tb IIIC IP65/IP66<sup>Ⓢ</sup>  
 Ta = -50°C to +60°C

Ⓢ US Certified - File LR11716  
 IEC Ex CSA 10.0007U  
 SIRA 10ATEX1351U



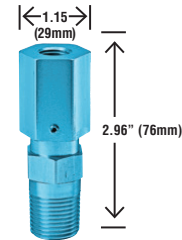
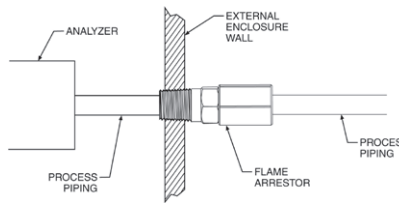
<sup>Ⓢ</sup> See chart below for suitability  
<sup>Ⓢ</sup> Warning - not for use in acetylene atmospheres

CATALOG NUMBER	EXTERNAL THREAD SIZE	INTERNAL THREAD SIZE	THIRD PARTY	SUITABILITY USA	THIRD PARTY	SUITABILITY CANADA	THIRD PARTY	SUITABILITY ATEX/IEC Ex
KB1FA25	1/2 NPT	1/4 NPT	CSAus	CLASS I GROUPS B, C & D CLASS I, ZONES 1 & 2 GR IIB+H2 CLASS II GROUPS E, F, & G CLASS III TYPE 3 & 4	c CSA c CSA	CLASS I GROUPS C & D CLASS I, ZONES 1 & 2 GR IIB CLASS II GROUPS E, F & G CLASS III TYPE 3 & 4	SIRA/CSA	II 2 G Ex d IIC <sup>Ⓢ</sup> T3 Gb IP66
KB1FAM16 KBM20FA25 KBM20FA16	1/2 NPT M20 M20	M16 1/4 NPT M16	CSAus CSAus CSAus	CLASS I GROUPS B, C & D CLASS I ZONES 1 & 2 GR IIB+H2 CLASS II GROUPS E, F & G CLASS III TYPE 3	c CSA c CSA c CSA	CLASS I GROUPS C & D CLASS I, ZONES 1 & 2 GR IIB CLASS II GROUPS E, F & G CLASS III TYPE 3	SIRA/CSA SIRA/CSA SIRA/CSA	II 2 G Ex d IIC T3 Gb IP65

### Specifications

Air flow = 83 + 15 / -25 SCFH at 5PSI  
 Pressure drop = 1.3 PSI at 100 PSI  
 Maximum flow pressure = 800 PSI  
 Volume = For use in enclosures with a maximum internal volume of 9526 cubic inches or 160 liters.

### TYPICAL INSTALLATION



## EXH SERIES CIRCUIT BREAKER HANDLES

### FEATURES-SPECIFICATIONS

#### Applications

EXH Series circuit breaker handles are for use with the following Series of Killark enclosures: EXB, DB, B7E

- Used to activate circuit breakers and motor circuit protectors from front cover
- Factory or field installed in a 3/4" NPSM opening for EXH1 & EXH2 and a 1-1/4" NPSM for EXH3
- Has provision for Lock-On and Lock-Off with up to three padlocks
- Consists of an external handle mechanism with through-the-enclosure shaft and internal toggle mechanism and breaker pan

#### Materials

- Copper free aluminum with 316 stainless steel shaft and screens
- O-ring 70 durometer nitrile

Submit sketch showing the desired location of internal breaker for factory location of handle mechanism. Order as separate option with enclosure for factory installation or by Catalog Number for field installation. Consult factory for handle mechanism for fused and non-fused disconnect switches.



EXH

Class I, Div. 1 & 2, Groups B,C,D  
 Class I, Zones 1 & 2, Groups IIB+H<sub>2</sub>, IIA  
 Class II, Div. 1 & 2, Groups E, F, G  
 Class III, Encl. Type 3, 4 & 4X  
 NEMA 3, 4, 4X, 7 (B,C,D) 9 (E,F,G)

UL LISTED - File E150827

Ⓢ Certified - File LR11714

EXH CIRCUIT BREAKER HANDLE WITH SHAFT AND PAN					
CATALOG NUMBER			BREAKER MANUFACTURER	BREAKER FRAMES TO OPERATE	MAX. AMPS
6" DEEP BOX	8" DEEP BOX	10" DEEP BOX			
EXH1A6	EXH1A8	EXH1A10	GE	TEB-TED-THED-TEL	150
			ITE/Siemens	ED2-ED4-ED6-HED4-HED6	125
			Square D	FAL-FHL-FCL	100
			Cutler Hammer	EHD-FDB-FD-HFD-FDC-HMCP	150
N/A	EXH1B8	EXH1B10	GE	TFJ-TFK-THFK-TFL	225
			Square D	KAL-KHL-KCL	250
			Cutler Hammer	JDB-JD-HJD-JDC	250
			Cutler Hammer	DK-KDB-KD-HKD-KDC	400
N/A	EXH2C8	EXH2C10	GE	TJJ-TJK4-TJK6-THJK4-THJK6	600
			ITE/Siemens	FXD6-FD6-HFD6-CFD6	250
			ITE/Siemens	JXD2-JXD6-JD6-HJD6-HHJD6-CJD6	400
			ITE/Siemens	LXD6-LD6-HKD6-HHLD6-CLD6	600
N/A	EXH3D8	EXH3D10	Square D	LAL-LHL	400
			Cutler Hammer	LDB-LD-HLD-LDC	600
			GE	TKM8-THKM8-TKM12-THKM12	1200
			ITE/Siemens	MXD6-MD6-HMXD6-HMD6-CMD6	800
N/A	N/A	EXH3E10	ITE/Siemens	NXD6-ND6-HNXD6-HND6-CND6	1200
			Square D	LCL	600
			Square D	MAL-MHL	1000
			Cutler Hammer	ND-HND-NDC	1200