



ENCLOSURES

ENCLOSURE OPTIONS

HINGES AND GLASS LENS COVERS



HINGE-10L and HINGE-10R
HINGE-11L and HINGE-11R
HINGE-12L and HINGE-12R
Extruded Aluminum



HINGE 4 Stainless Steel

Round and Rectangular Lens Covers Must Be Factory Installed



GL/GLX Series Lens Cover



FEATURES-SPECIFICATIONS

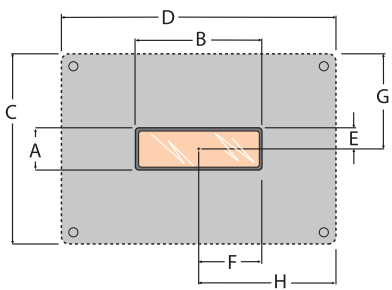
HINGES

Applications

Hinges are installed on flanged enclosures to allow for easier and safer installation and when performing maintenance on internal components.

HINGES		
CATALOG NUMBER	SERIES USED	MATERIAL
HINGE-4	DB	Stainless steel
HINGE-12L	Small EXB	Extruded aluminum
HINGE-12R		
HINGE-10L	Larger sizes EXB	Extruded aluminum
HINGE-10R		
HINGE-11L	Mid Sizes EXB, DB	Extruded aluminum
HINGE-11R		

- Note: Hinge is a single hinge and two required per enclosure.
- Hinge 10L-10R-11L-11R-12L-12R include two hinges
 - Hinge 10L, 11L & 12L are for mounting on left side of enclosure
 - Hinge 10R, 11R & 12R are for mounting on right side of enclosure
 - All hinges supplied with stainless steel mounting screws and pins



GL/GLX ROUND GLASS LENS COVERS

Applications

Use GL Series lens on:

- All EXB Boxes

Use GLX Series lens on:

- All DB Boxes

Refer to recommended minimum spacing table. Series GL and GLX have identical viewing lens diameter and outside diameter. The difference is in the thread pitch.

GLXR RECTANGULAR GLASS LENS COVERS

Applications

Rectangular glass lens windows can be factory installed to enable viewing of digital read out meters and devices such as:

- Volt meters
- Flow meters
- Gas analyzers
- Process receivers, transmitters and controllers

Ordering Information

Rectangular lens option must be factory installed and ordered in conjunction with appropriate EXB Series enclosure. See page E42. Submit drawing or sketch to specify lens location. Consult factory for multi-lens arrangements.

GLXR RECTANGULAR LENS COVER ASSEMBLIES								
CATALOG NUMBER	VIEWING AREA ^①		MINIMUM SPACE		OTHER DIMENSIONS			
	A	B	C	D	E	F	G	H
GLXR13	1 (25.4)	3 (76.2)	4.5 (114.3)	6.5 (165.1)	0.5 (12.7)	1.5 (38.1)	2.25 (57.2)	3.25 (82.6)
GLXR24	2 (50.8)	4 (101.6)	5.5 (139.7)	7.5 (190.5)	1 (25.4)	2 (50.8)	2.72 (69.1)	3.75 (95.3)
GLXR27	2 (50.8)	7 (177.8)	5.5 (139.7)	10.5 (266.7)	1 (25.4)	3.5 (88.9)	2.75 (69.9)	5.25 (133.4)
GLXR34	3.5 (88.9)	4 (101.6)	7 (177.8)	7.5 (190.5)	1.75 (44.5)	2 (50.8)	3.5 (88.9)	3.75 (95.3)
GLXR36	3 (76.2)	6 (152.4)	6.5 (165.1)	9.5 (241.3)	1.5 (38.1)	3 (76.2)	3.25 (82.6)	4.75 (120.7)
GLXR47	4 (101.6)	7 (177.8)	7.5 (190.5)	10.5 (266.7)	2 (50.8)	3.5 (88.9)	3.75 (95.3)	5.25 (133.4)
GLXR59	5 (127.0)	9 (228.6)	8.5 (215.9)	12.5 (317.5)	2.5 (63.5)	4.5 (114.3)	4.25 (108.0)	6.25 (158.8)
GLXR99	9 (228.6)	9 (228.6)	12.5 (317.5)	12.5 (317.5)	4.5 (114.3)	4.5 (114.3)	6.25 (158.8)	6.25 (158.8)

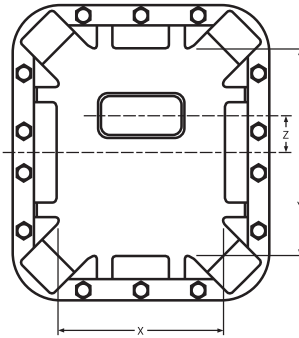
① Other sizes available. Contact the factory for additional information.

GL/GLX RECOMMENDED MINIMUM SPACING —CENTERLINE TO CENTERLINE							VIEWING DIAMETER	OUTSIDE DIAMETER
GLASS LENS TYPE	GL/GLX-275	GL/GLX-300	GL/GLX-375	GL/GLX-537	GL/GLX-600	GL/GLX-775		
GL/GLX-275	7 (177.8)	7.5 (190.5)	7.75 (196.9)	8.75 (222.3)	9 (228.6)	10 (254.0)	2.75 (69.9)	4.63 (117.6)
GL/GLX-300	7.5 (190.5)	8 (203.2)	8.25 (209.6)	9.25 (235.0)	9.5 (241.3)	10.5 (266.7)	2.93 (74.4)	5.25 (133.4)
GL/GLX-375	7.75 (196.9)	8.25 (209.6)	8.5 (215.9)	9.5 (241.3)	9.75 (247.7)	10.75 (273.1)	3.75 (95.3)	6.25 (158.8)
GL/GLX-537	8.75 (222.3)	9.25 (235.0)	9.5 (241.3)	10.5 (266.7)	10.75 (273.1)	11.75 (298.5)	5.38 (136.7)	7.88 (200.2)
GL/GLX-600	9 (228.6)	9.5 (241.3)	9.75 (247.7)	10.75 (273.1)	11 (279.4)	12 (304.8)	6 (152.4)	8.88 (225.6)
GL/GLX-775	10 (254.0)	10.5 (266.7)	10.75 (273.1)	11.75 (298.5)	12 (304.8)	13 (330.2)	7.75 (196.9)	10.25 (260.4)

Note: For spacing less than minimum in table, (shown in inches) consult factory.



GLASS LENS COVER



FEATURES-SPECIFICATIONS

GLXR LAYOUT GUIDE

CATALOG NUMBER	USEABLE COVER AREA		Z = MAXIMUM CENTER LINE OF COVER TO CENTERLINE OF GLASS LENS							
	X	Y	GLXR13	GLXR24	GLXR27	GLXR34	GLXR36	GLXR47	GLXR59	GLXR99
EXB-664 N34	5 (127.0)	5 (127.0)	N	N	N	N	N	N	N	N
EXB-684 N34	5 (127.0)	7 (177.8)	1.25 (31.8)	N	N	N	N	N	N	N
EXB-6124 N34	5 (127.0)	11 (279.4)	3.25 (82.6)	R	N	N	N	N	N	N
EXB-886 N34	7 (177.8)	7 (177.8)	1.25 (31.8)	0.75 (19.1)	N	N	N	N	N	N
EXB-8104 N34	7 (177.8)	9 (228.6)	2.25 (57.2)	1.75 (44.5)	N	1 (25.4)	N	N	N	N
EXB-8106 N34	7 (177.8)	9 (228.6)	2.25 (57.2)	1.75 (44.5)	N	1 (25.4)	N	N	N	N
EXB-8126 N34	7 (177.8)	11 (279.4)	3.25 (82.6)	2.75 (69.9)	R*	2 (50.8)	R*	N	N	N
EXB-8128 N34	7 (177.8)	11 (279.4)	3.25 (82.6)	2.75 (69.9)	R*	2 (50.8)	R*	N	N	N
EXB-10106 N34	9 (228.6)	9 (228.6)	2.25 (57.2)	1.75 (44.5)	N	1 (25.4)	N	N	N	N
EXB-10108 N34	9 (228.6)	9 (228.6)	2.25 (57.2)	1.75 (44.5)	N	1 (25.4)	N	N	N	N
EXB-10146 N34	9 (228.6)	13 (330.2)	4.25 (108.0)	3.75 (95.3)	R	3 (76.2)	R	R	R	N
EXB-10148 N34	9 (228.6)	13 (330.2)	4.25 (108.0)	3.75 (95.3)	R	3 (76.2)	R	R	R	N
EXB-12126 N34	10 (254.0)	10 (254.0)	2.75 (69.9)	2.25 (57.2)	2.25 (57.2)	1.5 (38.1)	1.75 (44.5)	1.25 (31.8)	N	N
EXB-12128 N34	10 (254.0)	10 (254.0)	2.75 (69.9)	2.25 (57.2)	2.25 (57.2)	1.5 (38.1)	1.75 (44.5)	1.25 (31.8)	N	N
EXB-12186 N34	10 (254.0)	16 (406.4)	5.75 (146.1)	5.25 (133.4)	5.25 (133.4)	4.5 (114.3)	4.75 (120.7)	4.25 (108.0)	R*	N
EXB-12188 N34	10 (254.0)	16 (406.4)	5.75 (146.1)	5.25 (133.4)	5.25 (133.4)	4.5 (114.3)	4.75 (120.7)	4.25 (108.0)	R*	N
EXB-12246 N34	10.25 (260.4)	22.25 (565.2)	8.88 (225.6)	8.38 (212.9)	8.38 (212.9)	7.63 (193.8)	7.88 (200.2)	7.38 (187.5)	R	N
EXB-12248 N34	10.25 (260.4)	22.25 (565.2)	8.88 (225.6)	8.38 (212.9)	8.38 (212.9)	7.63 (193.8)	7.88 (200.2)	7.38 (187.5)	R	N
EXB-122412 N34	10.25 (260.4)	22.25 (565.2)	8.88 (225.6)	8.38 (212.9)	8.38 (212.9)	7.63 (193.8)	7.88 (200.2)	7.38 (187.5)	R	N
EXB-12368 N34	11 (279.4)	35 (889.0)	15.25 (387.4)	14.75 (374.7)	14.75 (374.7)	14 (355.6)	14.25 (362.0)	13.75 (349.3)	R*	N
EXB-123610 N34	11 (279.4)	35 (889.0)	15.25 (387.4)	14.75 (374.7)	14.75 (374.7)	14 (355.6)	14.25 (362.0)	13.75 (349.3)	R*	N
EXB-14146 N34	13 (330.2)	13 (330.2)	4.25 (108.0)	3.75 (95.3)	3.75 (95.3)	3 (76.2)	3.25 (82.6)	2.75 (69.9)	2.25 (57.2)	*
EXB-14148 N34	13 (330.2)	13 (330.2)	4.25 (108.0)	3.75 (95.3)	3.75 (95.3)	3 (76.2)	3.25 (82.6)	2.75 (69.9)	2.25 (57.2)	*
EXB-16166 N34	14 (355.6)	14 (355.6)	4.75 (120.7)	4.25 (108.0)	4.25 (108.0)	3.5 (88.9)	3.75 (95.3)	3.25 (82.6)	2.75 (69.9)	0.75 (19.1)
EXB-16168 N34	14 (355.6)	14 (355.6)	4.75 (120.7)	4.25 (108.0)	4.25 (108.0)	3.5 (88.9)	3.75 (95.3)	3.25 (82.6)	2.75 (69.9)	0.75 (19.1)
EXB-16248 N34	14 (355.6)	22 (558.8)	8.75 (222.3)	8.25 (209.6)	8.25 (209.6)	7.5 (190.5)	7.75 (196.9)	7.25 (184.2)	6.75 (171.5)	4.75 (120.7)
EXB-162410 N34	14 (355.6)	22 (558.8)	8.75 (222.3)	8.25 (209.6)	8.25 (209.6)	7.5 (190.5)	7.75 (196.9)	7.25 (184.2)	6.75 (171.5)	4.75 (120.7)
EXB-18186 N34	16 (406.4)	16 (406.4)	5.75 (146.1)	5.25 (133.4)	5.25 (133.4)	4.5 (114.3)	4.75 (120.7)	4.25 (108.0)	3.75 (95.3)	1.75 (44.5)
EXB-18188 N34	16 (406.4)	16 (406.4)	5.75 (146.1)	5.25 (133.4)	5.25 (133.4)	4.5 (114.3)	4.75 (120.7)	4.25 (108.0)	3.75 (95.3)	1.75 (44.5)
EXB-18248 N34	16 (406.4)	22 (558.8)	8.75 (222.3)	8.25 (209.6)	8.25 (209.6)	7.5 (190.5)	7.75 (196.9)	7.25 (184.2)	6.75 (171.5)	4.75 (120.7)
EXB-182410 N34	16 (406.4)	22 (558.8)	8.75 (222.3)	8.25 (209.6)	8.25 (209.6)	7.5 (190.5)	7.75 (196.9)	7.25 (184.2)	6.75 (171.5)	4.75 (120.7)
EXB-18308 N34	16 (406.4)	29 (736.6)	12.25 (311.2)	11.75 (298.5)	11.75 (298.5)	10 (254.0)	11.25 (285.8)	9.75 (247.7)	9.25 (235.0)	8.25 (209.6)
EXB-18368 N34	16 (406.4)	34 (863.6)	14.75 (374.7)	14.25 (362.0)	14.25 (362.0)	12.25 (311.2)	13.75 (349.3)	12.25 (311.2)	11.75 (298.5)	10.75 (273.1)
EXB-183610 N34	16 (406.4)	34 (863.6)	14.75 (374.7)	14.25 (362.0)	14.25 (362.0)	12.25 (311.2)	13.75 (349.3)	12.25 (311.2)	11.75 (298.5)	10.75 (273.1)
EXB-203611 N34	18.88 (479.6)	34.88 (886.0)	15.18 (385.6)	14.68 (372.9)	14.68 (372.9)	13.93 (353.8)	14.18 (360.2)	13.68 (347.5)	13.18 (334.8)	11.18 (284.0)
EXB-24248 N34	22 (558.8)	22 (558.8)	8.75 (222.3)	8.25 (209.6)	8.25 (209.6)	7.5 (190.5)	7.25 (184.2)	7.25 (184.2)	6.75 (171.5)	4.75 (120.7)
EXB-242410 N34	22 (558.8)	22 (558.8)	8.75 (222.3)	8.25 (209.6)	8.25 (209.6)	7.5 (190.5)	7.25 (184.2)	7.25 (184.2)	6.75 (171.5)	4.75 (120.7)
EXB-24308 N34	22 (558.8)	28 (711.2)	11.75 (298.5)	11.25 (285.8)	11.25 (285.8)	9.5 (241.3)	10.75 (273.1)	9.25 (235.0)	9.75 (247.7)	7.75 (196.9)
EXB-24368 N34	22 (558.8)	34 (863.6)	14.75 (374.7)	14.25 (362.0)	14.25 (362.0)	12.5 (317.5)	13.75 (349.3)	13.25 (336.6)	12.75 (323.9)	10.75 (273.1)
EXB-243610 N34	22 (558.8)	34 (863.6)	14.75 (374.7)	14.25 (362.0)	14.25 (362.0)	12.5 (317.5)	13.75 (349.3)	13.25 (336.6)	12.75 (323.9)	10.75 (273.1)

Symbols: N = Enclosure will not accommodate this lens size
R = Rotate lens 90°, consult factory for layout assistance

* = Voids UL/CSA/CENELEC certifications
* = Indicates center line



ENCLOSURE OPTIONS

KB DRAINS / BREATHERS

ATEX/IEC Ex Certified



KB1-4X



KB1BCEN



KB1DCEN

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.

Volume

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

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

UL Listed - File E10514
 cSP^{us} 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 KBI-4X and KBI-4X56 only

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/CSA SIRA/CSA SIRA/CSA SIRA/CSA	II 2 G Ex d IIC T226°C Gb IP44 [Ⓛ]
KB1-4X KB1-4X56	1/2 NPT 1/2 NPT	ALUMINUM 316SS	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 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 BREATHER

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 a 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[Ⓛ] & 2, Groups E, F, G
 Class III, Ambient Temperature Range
 -55°C to +80°C
 Enclosure Type 3, 4 & 4X[Ⓛ] IP66

Ex II 2 G D CE 0539
 Ex e IIC Gb
 Ex tb IIIC Db IP66
 Ta = -55°C to +80°C



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.

Materials

- 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

cSP^{us} 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

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.