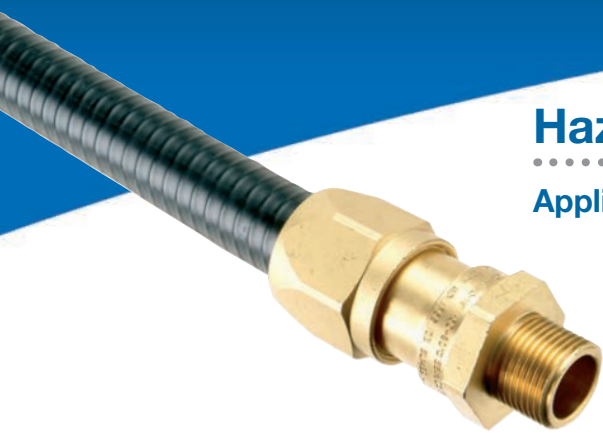




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## Hazardous Areas

### Applications

#### Protection for Critical Wiring in Hazardous Areas

From our UK-based facility, Thomas & Betts manufactures a wide range of globally approved products including metallic conduit and fittings along with a full range of conduit accessories.

We are committed to an extensive and ongoing Product Development program, which will continue to deliver innovative and high performance products for effective cable protection in safety critical areas.

Our current range of high performance products are designed for many highly demanding market sectors including petrochemical, pharmaceutical and offshore industries or indeed any ATEX / IECEx / UL / CSA areas.



#### ATEX / IECEx

The directive is designed to harmonize the law of EU member states concerning equipment and protective systems intended for use in potentially explosive areas.

Products are categorized 1, 2 and 3 with category 1 meaning the product employs a very high level of protection; category 2, a high level of protection; category 3, a normal level of protection.

Its main requirements are the need to classify areas as Zones 0, 1 and 2 (for gases and vapours), Zones 20, 21, 22 (for dusts and equipment for mining), Mining applications covered by Group I and non-mining applications by Group II.



#### UL / CSA Directives

Products are categorized into Classes and Divisions (UL) or Zones (CSA) where Class I denotes use in gas environments and Class II, dust and flyings.

This Class and Division or Zone system identifies what equipments can be used as stated in the NEC National Electrical Code or CEC Canadian Electrical Code, Part I

#### Technical Support

Thomas & Betts can provide technical assistance in the selection of the appropriate product from its range. For help please contact our Regional Sales Office.

## Hazardous Areas

### Standards and What They Mean

#### Zone Definitions for Dust (as per ATEX 60079)

**ZONE 20**

**ZONE 20**  
Permanent / Frequent

Area in which an explosive atmosphere in the form of a cloud of combustible dust in air is **present continuously**, or for long periods, or frequently.

**SAFETY ZONE**  
No Explosion Risk

**ZONE 21**

**ZONE 21**  
Occasional

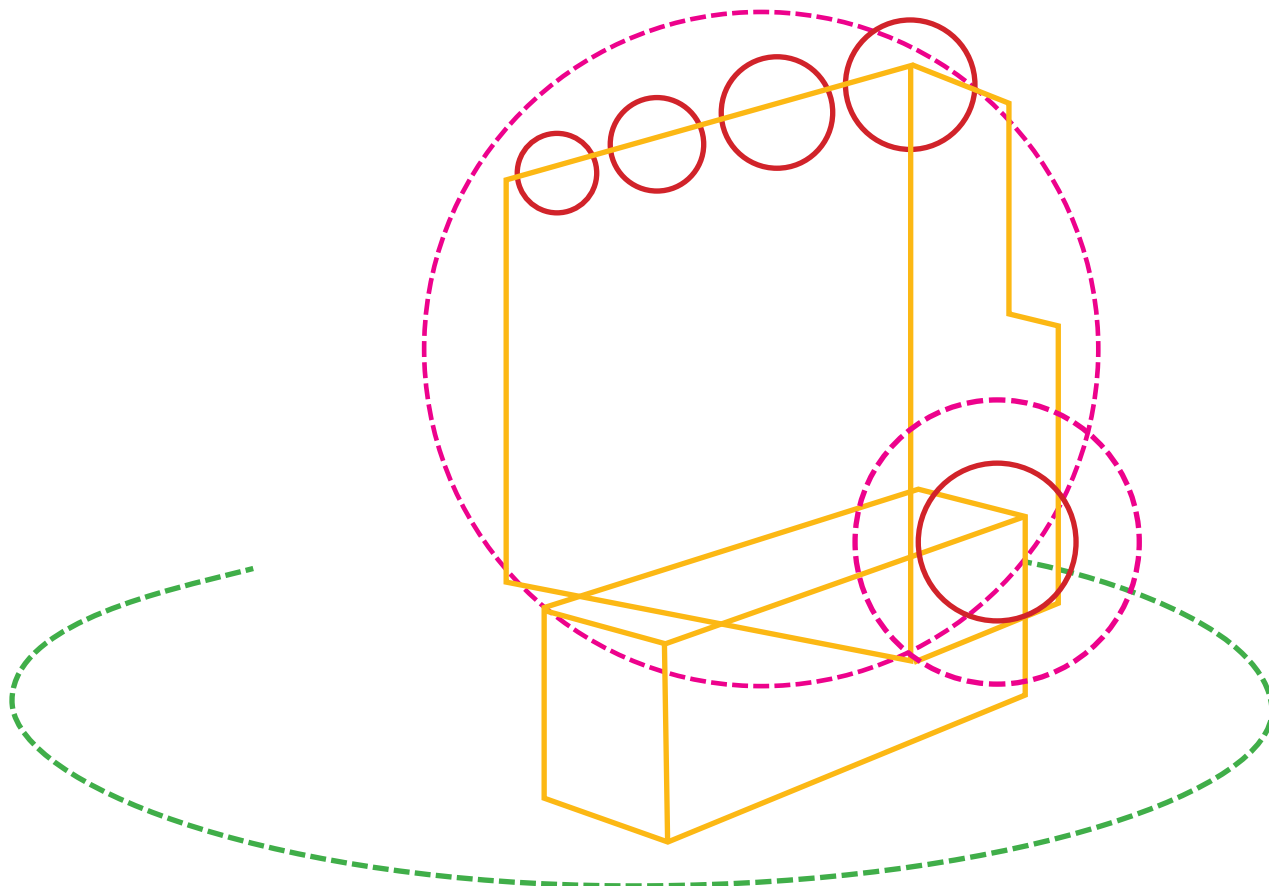
Area in which an explosive atmosphere, in the form of a cloud of combustible dust in air is **likely to occur**, in normal operation, occasionally.

**ZONE 22**

**ZONE 22**  
Dust Irregular / Short Duration

Area in which an explosive atmosphere, in the form of a cloud of combustible dust in air is **likely to occur**, in normal operation, occasionally.

#### Zones for Dust



## Hazardous Areas

Standards and What They Mean

### Zone for Definitions Gases & Vapours (as per ATEX 60079-10)

#### Zones for Gases & Vapours



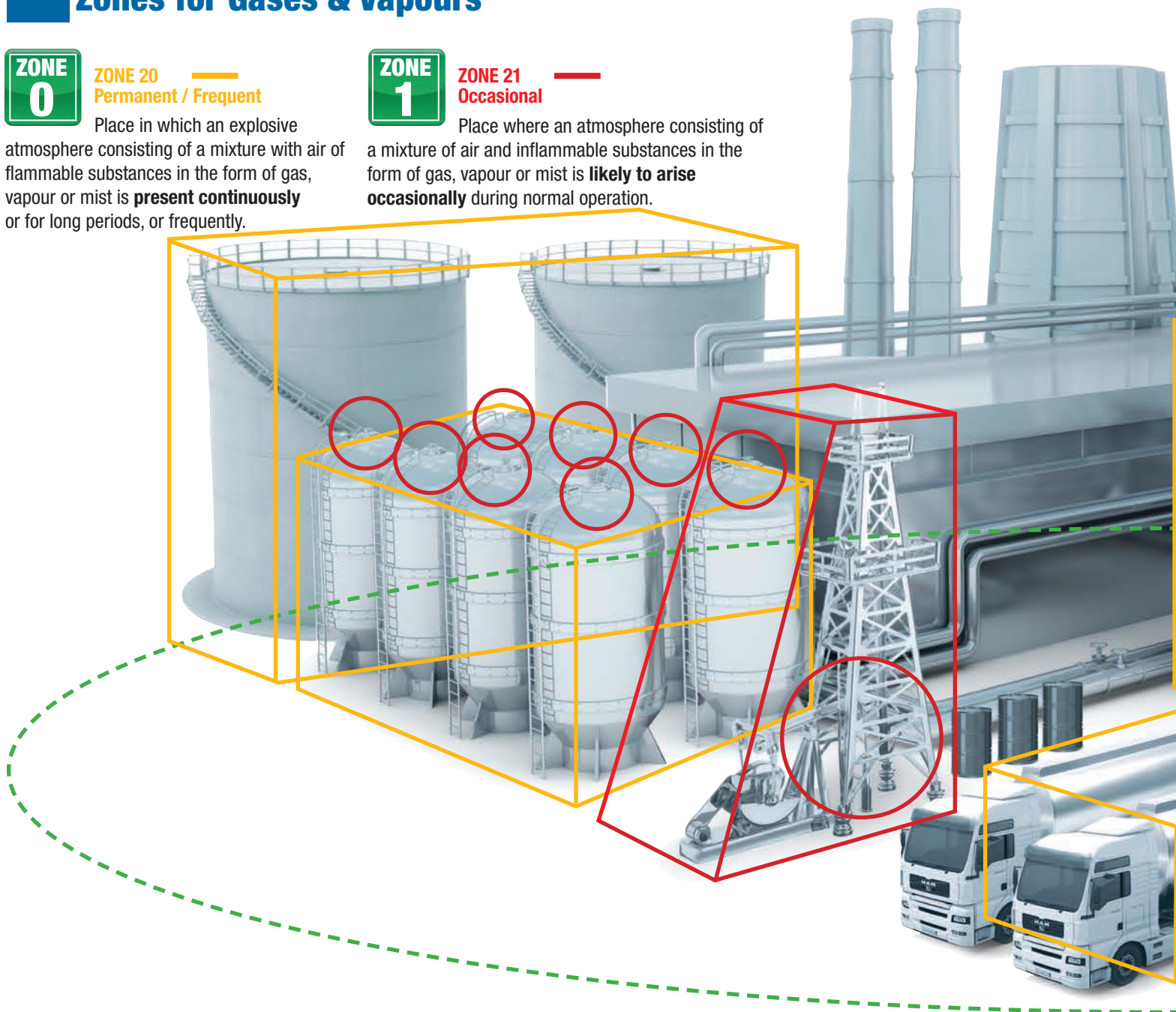
**ZONE 20**  
Permanent / Frequent

Place in which an explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapour or mist is **present continuously** or for long periods, or frequently.



**ZONE 21**  
Occasional

Place where an atmosphere consisting of a mixture of air and inflammable substances in the form of gas, vapour or mist is **likely to arise occasionally** during normal operation.



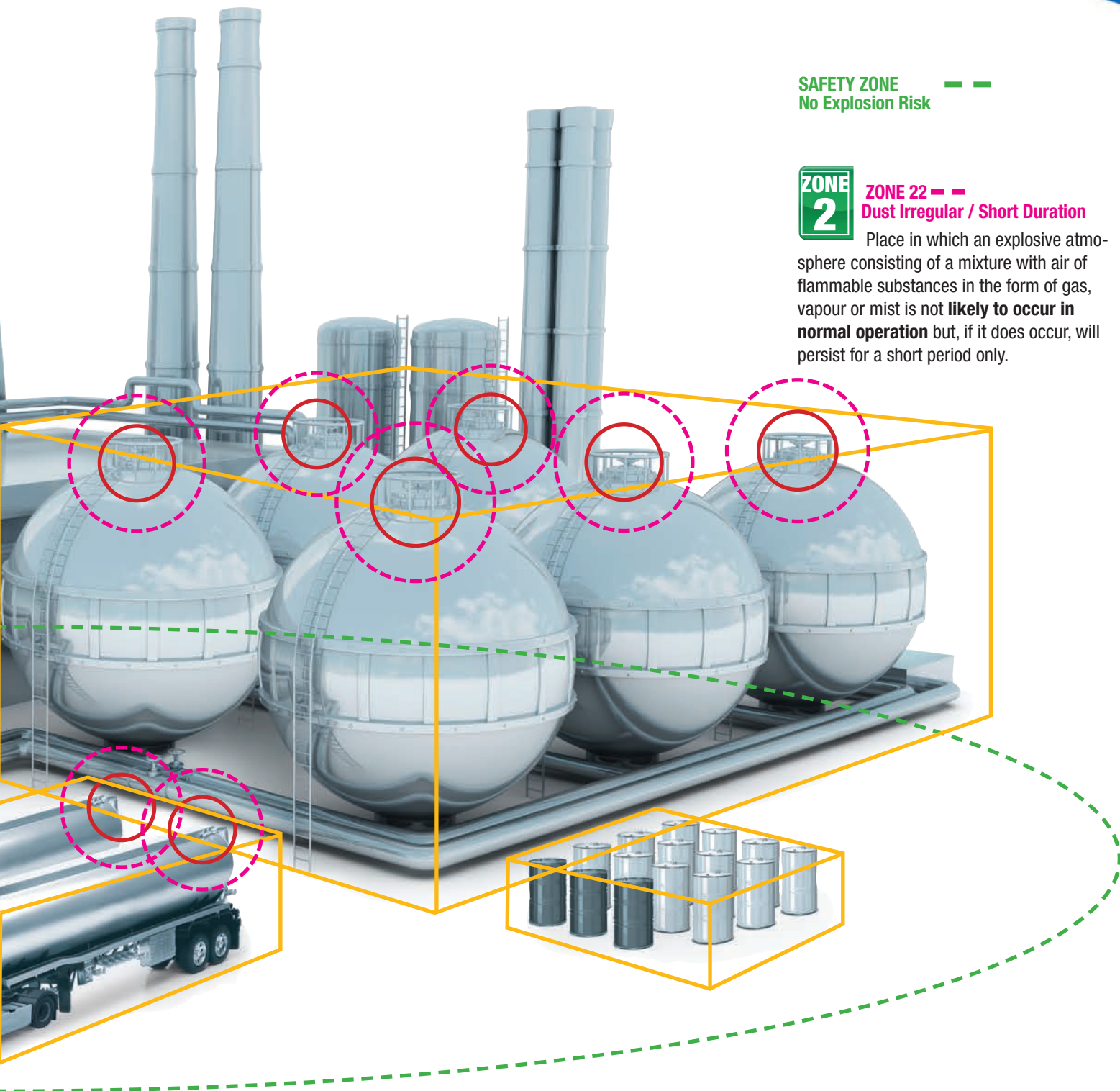


SAFETY ZONE  
No Explosion Risk

ZONE  
2

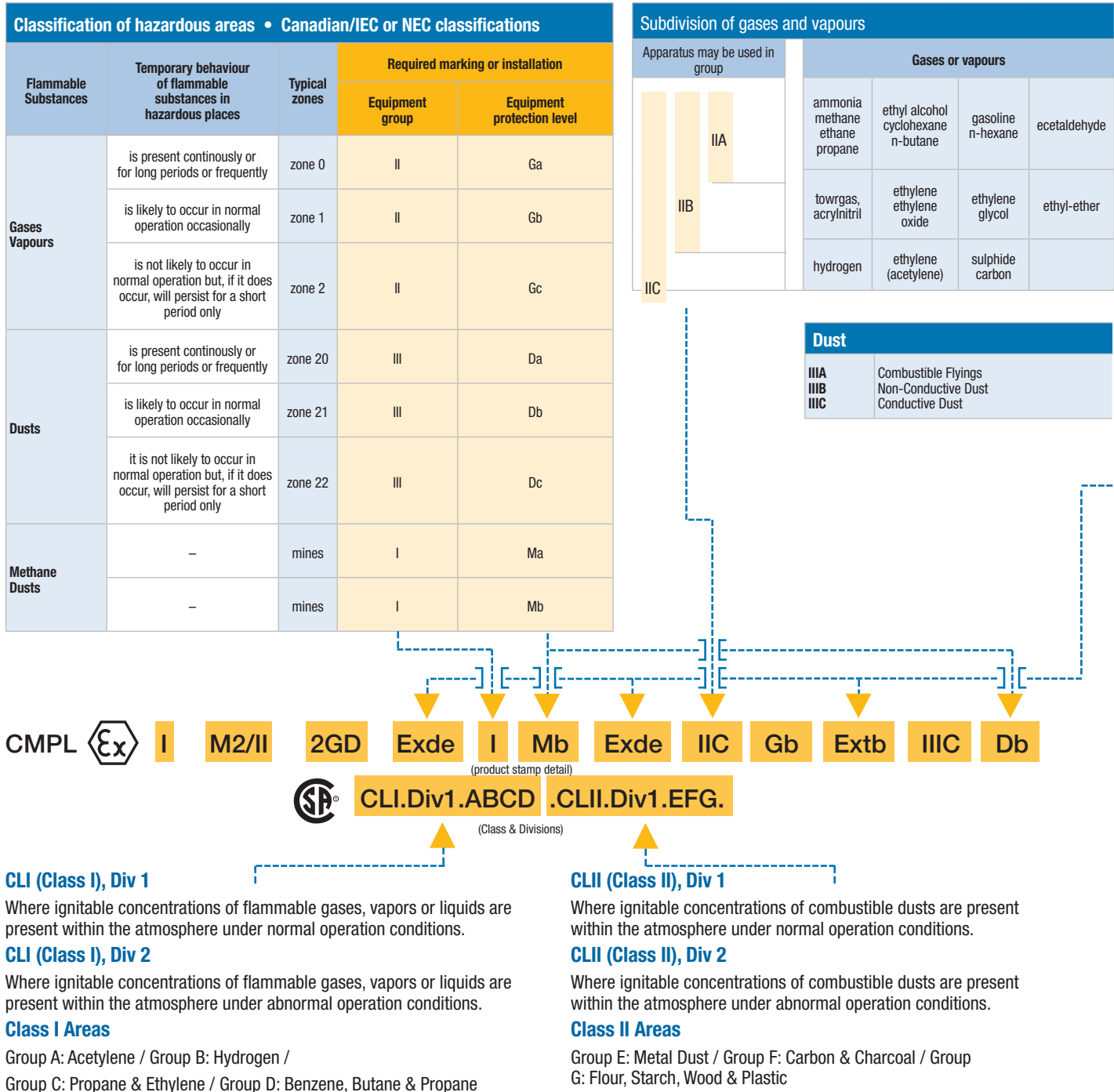
ZONE 22 — —  
Dust Irregular / Short Duration

Place in which an explosive atmosphere consisting of a mixture with air of flammable substances in the form of gas, vapour or mist is not **likely to occur in normal operation** but, if it does occur, will persist for a short period only.



## Product Marking Guide

### Classification of Equipment for Use in Potentially Explosive Atmospheres



## Product Marking Guide

### Classification of Equipment for Use in Potentially Explosive Atmospheres

Restriction for use of apparatus	
Requirements	Marking
Equipment without restriction	—
Equipment with special condition may be noted	X
Ex component, which is not intended to be used alone and requires additional certification before being used in hazardous area	U

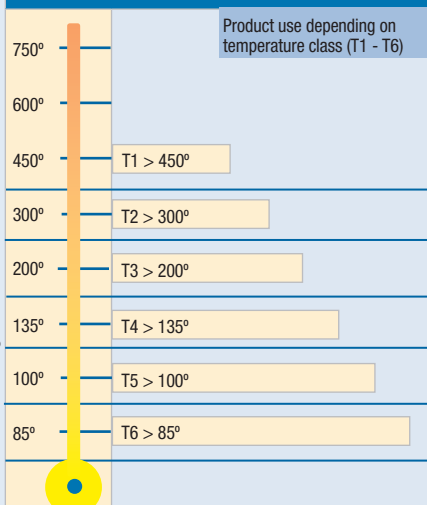
Protection technique				
Application	Type of protection		Marking	EN/IEC Standard
All applications	General requirements		—	60079-0
Control stations, motors, fuses, switchgear, power electronics	Flameproof enclosure		Exd	60079-1
Installation materials, motors, luminaries	Increased safety		Exe	60079-7
Measurement and control, automation technology, sensors, actuators	Intrinsic safety		Exi	60079-11
Switch- and control cupboards, analyse-apparatus, computers	Pressurisation		Exp	60079-2
Coils of motors or relays, solenoid valves	Encapsulation		Exm	60079-18
Transformers, relays, control stations, magnetic contactors	Oil immersion		Exo	60079-6
Capacitors, transformers	Powder filling		Exq	60079-5
See at the top - only for zone 2	"Non sparking"		Exn	60079-15
For use in zone 0, 1, 2 / for use in zone 1, 2	Dust atmospheres		Ext	60079-31

**IECEx** **SIR** **09.0103** **X**

(Certification Number)

IIA T1 Acetone 735°  
IIA T1 Ammonia 630°  
IIB T1 Carbon Monoxide 605°  
IIA T1 Bensene 560°  
IIC T1 Hydrogen 560°  
IIA T1 Methane 537°  
IIA T1 Toluene 535°  
IIA T1 Styrene 490°  
IIA T1 Propane 470°  
IIA T1 Butene 455°  
IIB T1 Butadiene 430°  
IIB T2 Ethylene 425°  
IIA T2 Butane 372°  
IIA T2 Ethanol 363°  
IIA T2 Butylalcohol 359°  
IIB T2 Dimethylether 350°  
IIC T2 Acetylene 305°  
IIA T3 Nafta 290°  
IIA T3 Hydrogen Sulphide 270°  
IIA T3 Cyclohexane 259°  
IIA T3 Hexane 233°  
IIA T3 Heptane 215°  
IIA T3 Kerosene 210°  
IIA T3 Dekane 201°  
IIB T4 Diethyl Ether 160°  
IIC T6 Carbon Disulphide 95°

#### Temperature Class (T) / Ignition Temperature




#### New Marking - EPL's (Explosion Protection Levels)

The introduction of the EPL's and changes in the EN 60079 series standard has introduced new marking requirements.


## Liquidtight Flexible Metallic Conduit System

### Steel Cores

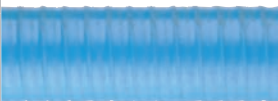
#### General Oil Resistant - Galvanized Steel Core with a general purpose oil resistant coating

Certification & Characteristics			
	Certification Standard: IEC 61386 Static Temp: -25°C to +105°C Flexing Temp: -5°C to +105°C		
	Special Characteristics: Flame retardant PVC covering	Flame Propagation: Flame dies in less than 30 seconds after ignition source is removed	


#### Low Fire Hazard - Galvanized Steel Core with a LFH coating

Certification & Characteristics			
	Certification Standard: IEC 61386 LUL Fully Compliant (E1042A6) MOD to NES 518: Issue 3 DEF STAN 61-12 (Part 31) Issue 1		
	Static Temp: -25°C to +90°C Flexing Temp: -5°C to +90°C Special Characteristics: Limited Fire Hazard, zero halogen (BS6425 Pt 1)	Flame Propagation: Flame dies in less than 30 seconds after ignition source is removed	


#### High Temperature - Galvanized Steel Core with a high temperature resistant coating

Certification & Characteristics			
	Certification Standard: IEC 61386 Static Temp: -50°C to +130°C Flexing Temp: -5°C to +90°C		
	Special Characteristics: Flame resistance: UL94 V2 Chemical and oil resistant	Flame Propagation: Flame dies in less than 30 seconds after ignition source is removed	

#### Low Fire Hazard with EMC Protection - Galvanized Steel Core with a galvanized steel EMC shield and LFH Covering

Certification & Characteristics			
	Certification Standard: IEC 61386 MOD to NES 518: Issue 3 DEF STAN 61-12 (Part 31) Issue 1		
	Static Temp: -25°C to +90°C Flexing Temp: -5°C to +90°C Special Characteristics: Limited Fire Hazard covering EMC Screening level: 60dB at 1MHz Braided	Flame Propagation: Flame dies in less than 30 seconds after ignition source is removed	

#### High Temperature Highly Flexible - Galvanized Steel Core with a high temperature, highly flexible coating

Certification & Characteristics			
	Certification Standard: IEC 61386 Static Temp: -65°C to +150°C Flexing Temp: -45°C to +135°C		
	Special Characteristics: High Flexibility High Temperature	Flame Propagation: Flame dies in less than 30 seconds after ignition source is removed	

#### Related Products



Group I & II Gland

F12-F13



Universal Gland

F14-F15



90° Elbow Gland

F12-F13



Group II Gland

F12-F13



## Liquidtight Flexible Metallic Conduit System

### Steel Cores



Technical Specifications								
See Note 1	Nominal Conduit Size (mm)	16	20	25	32	40	50	63
	US Trade Sizes (inch)	3/8	1/2	3/4	1	1-1/4	1-1/2	2
	Inside Diameter (mm)	12.5	16.0	21.0	26.4	35.3	40.4	51.6
Type	Coil Lengths (m)	10/30	10/30	10/30	10/20	10/20	10/20	10/20
General Oil Resistant (Black)		EXLB03*	EXLB04*	EXLB05*	EXLB06*	EXLB07*	EXLB08*	EXLB09*
*Add coil length to complete part number, e.g. 10 metres = EXLB0510								

See Note 1	Nominal Conduit Size (mm)	16	20	25	32	40	50	63
	US Trade Sizes (inch)	3/8	1/2	3/4	1	1-1/4	1-1/2	2
	Inside Diameter (mm)	12.5	16.0	21.0	26.4	35.3	40.4	51.6
Type	Coil Lengths (m)	10/30	10/30	10/30	10/20	10/20	10/20	10/20
Low Fire Hazard (Black)		EXLT03*	EXLT04*	EXLT05*	EXLT06*	EXLT07*	EXLT08*	EXLT09*
*Add coil length to complete part number, e.g. 10 metres = EXLT0510								

See Note 1	Nominal Conduit Size (mm)	16	20	25	32	40	50	63
	US Trade Sizes (inch)	3/8	1/2	3/4	1	1-1/4	1-1/2	2
	Inside Diameter (mm)	12.5	16.0	21.0	26.4	35.3	40.4	51.6
Type	Coil Lengths (m)	10/30	10/30	10/30	10/20	10/20	10/20	10/20
High Temperature (Black)		EXLH03*	EXLH04*	EXLH05*	EXLH06*	EXLH07*	–	–
High Temperature (Blue)		EXLB03*	EXLB04*	EXLB05*	EXLB06*	EXLB07*	–	–
*Add coil length to complete part number, e.g. 10 metres = EXLH0510								

See Note 1	Nominal Conduit Size (mm)	16	20	25	32	40	50	63
	US Trade Sizes (inch)	3/8	1/2	3/4	1	1-1/4	1-1/2	2
	Inside Diameter (mm)	12.5	16.0	21.0	26.4	35.3	40.4	51.6
Type	Coil Lengths (m)	10/30	10/30	10/30	10/20	10/20	10/20	10/20
Low Fire Hazard with EMC (Black)		EXBBT03*	EXBBT04*	EXBBT05*	EXBBT06*	EXBBT07*	EXBBT08*	EXBBT09*
*Add coil length to complete part number, e.g. 10 metres = EXBBT0510								

See Note 1	Nominal Conduit Size (mm)	16	20	25	32	40	50	63
	US Trade Sizes (inch)	3/8	1/2	3/4	1	1-1/4	1-1/2	2
	Inside Diameter (mm)	12.5	16.0	21.0	26.4	35.3	40.4	51.6
Type	Coil Lengths (m)	10/30	10/30	10/30	10/20	10/20	10/20	10/20
High Temperature Highly Flexible (Black)		EXLHC03*	EXLHC04*	EXLHC05*	EXLHC06*	EXLHC07*	EXLHC08*	EXLHC09*
*Add coil length to complete part number, e.g. 10 metres = EXLHC0510								

Note 1: In Canada, as per CEC Part I, trade size are respectively 3/8 (12), 1/2 (16), 3/4 (21), 1 (27), 1-1/4 (35), 1-1/2 (41) and 2 (53).

## Liquidtight Flexible Metallic Conduit System

### Stainless Steel 316 Cores

General Oil Resistant - Stainless Steel 316 Core with a general purpose oil resistant coating							
	Certification & Characteristics						
	Certification Standard: IEC 61386 Static Temp: -25°C to +105°C Flexing Temp: -5°C to +105°C	Special Characteristics: Flame retardant PVC covering	Flame Propagation: Flame dies in less than 30 seconds after ignition source is removed				
Low Fire Hazard - Stainless Steel 316 Core with a LFH coating							
	Certification & Characteristics						
	Certification Standard: IEC 61386 LUL Fully Compliant (E1042A6) MOD to NES 518: Issue 3 DEF STAN 61-12 (Part 31) Issue 1	Static Temp: -25°C to +90°C Flexing Temp: -5°C to +90°C Special Characteristics: Limited Fire Hazard, zero halogen (BS6425 Pt 1)	Flame Propagation: Flame dies in less than 30 seconds after ignition source is removed				
High Temperature - Stainless Steel 316 Core with a high temperature resistant coating							
	Certification & Characteristics						
	Certification Standard: IEC 61386 Static Temp: -50°C to +130°C Flexing Temp: -5°C to +130°C	Special Characteristics: Flame resistance: UL94 V2 Chemical and oil resistant	Flame Propagation: Flame dies in less than 30 seconds after ignition source is removed				
Low Fire Hazard with EMC Protection - Stainless Steel 316 Core with a galvanized steel EMC shield and LFH Covering							
	Certification & Characteristics						
	Certification Standard: IEC 61386, UL full compliant MOD to NES 518: Issue 3 DEF STAN 61-12 (Part 31) Issue 1	Static Temp: -25°C to +90°C Flexing Temp: -5°C to +90°C Special Characteristics: Zero halogen (BS6425 pt1) Limited Fire Hazard covering EMC Screening level: 60db at 1MHz Braided	Flame Propagation: Flame dies in less than 30 seconds after ignition source is removed				
High Temperature Highly Flexible - Stainless Steel 316 Core with a high temperature, highly flexible coating							
	Certification & Characteristics						
	Certification Standard: IEC 61386 Static Temp: -65°C to +150°C Flexing Temp: -45°C to +135°C	Special Characteristics: High Flexibility High Temperature	Flame Propagation: Flame dies in less than 30 seconds after ignition source is removed				
Related Products							
							
Group I & II Gland	F12-F13	Universal Gland	F14-F15	90° Elbow Gland	F12-F13	Group II Gland	F12-F13

## Liquidtight Flexible Metallic Conduit System

### Stainless Steel 316 Cores



Technical Specifications								
See Note 1	Nominal Conduit Size (mm)	16	20	25	32	40	50	63
	US Trade Sizes (inch)	3/8	1/2	3/4	1	1-1/4	1-1/2	2
	Inside Diameter (mm)	12.5	16.0	21.0	26.4	35.3	40.4	51.6
Type	Coil Lengths (m)	10/30	10/30	10/30	10/20	10/20	10/20	10/20
General Oil Resistant (Black)		EXSB03*	EXSB04*	EXSB05*	EXSB06*	EXSB07*	EXSB08*	EXSB09*
*Add coil length to complete part number. e.g. 10 metres = EXSB0510								

See Note 1	Nominal Conduit Size (mm)	16	20	25	32	40	50	63
	US Trade Sizes (inch)	3/8	1/2	3/4	1	1-1/4	1-1/2	2
	Inside Diameter (mm)	12.5	16.0	21.0	26.4	35.3	40.4	51.6
Type	Coil Lengths (m)	10/30	10/30	10/30	10/20	10/20	10/20	10/20
Low Fire Hazard (Black)		EXST03*	EXST04*	EXST05*	EXST06*	EXST07*	EXST08*	EXST09*
*Add coil length to complete part number. e.g. 10 metres = EXST0510								

See Note 1	Nominal Conduit Size (mm)	16	20	25	32	40	50	63
	US Trade Sizes (inch)	3/8	1/2	3/4	1	1-1/4	1-1/2	2
	Inside Diameter (mm)	12.5	16.0	21.0	26.4	35.3	40.4	51.6
	Type	Coil Lengths (m)	10/30	10/30	10/30	10/20	10/20	10/20
High Temperature (Black)		EXSH03*	EXSH04*	EXSH05*	EXSH06*	EXSH07*	–	–
High Temperature (Blue)		EXSLH03*	EXSLH04*	EXSLH05*	EXSLH06*	EXSLH07*	–	–
*Add coil length to complete part number, e.g. 10 metres = EXSH0510								

See Note 1	Nominal Conduit Size (mm)	16	20	25	32	40	50	63
	US Trade Sizes (inch)	3/8	1/2	3/4	1	1-1/4	1-1/2	2
	Inside Diameter (mm)	12.5	16.0	21.0	26.4	35.3	40.4	51.6
Type	Coil Lengths (m)	10/30	10/30	10/30	10/20	10/20	10/20	10/20
Low Fire Hazard with EMC (Black)		EXSBBT03*	EXSBBT04*	EXSBBT05*	EXSBBT06*	EXSBBT07*	EXSBBT08*	EXSBBT09*
*Add coil length to complete part number, e.g. 10 metres = EXSBBT0510								

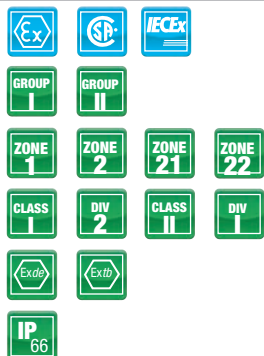
See Note 1	Nominal Conduit Size (mm)	16	20	25	32	40	50	63
	US Trade Sizes (inch)	3/8	1/2	3/4	1	1-1/4	1-1/2	2
	Inside Diameter (mm)	12.5	16.0	21.0	26.4	35.3	40.4	51.6
Type	Coil Lengths (m)	10/30	10/30	10/30	10/20	10/20	10/20	10/20
High Temperature Highly Flexible (Black)		EXSHC03*	EXSHC04*	EXSHC05*	EXSHC06*	EXSHC07*	EXSHC08*	EXSHC09*
*Add coil length to complete part number. e.g. 10 metres = EXSHC0510								

Note 1: In Canada, as per CEC Part I, trade size are respectively 3/8 (12), 1/2 (16), 3/4 (21), 1 (27), 1-1/4 (35), 1-1/2 (41) and 2 (53).

## Liquidtight Hazardous Area Gland

Constructed from either brass or stainless steel, with an epoxy resin barrier, the Group I Flameproof Gland is a high quality, high specification product, ideal for Ex I & II 2 GD gas and dust, Exde IIC and Exe II applications, Extb II applications, as well as **CSA Class 1 Div 2 hazardous locations**.

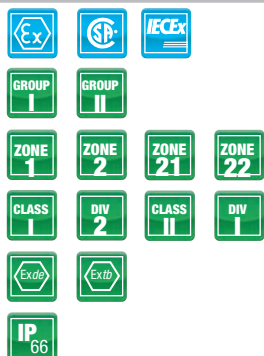
### ATEX Flameproof G1 Gland - Group I & II, Zones 1, 2, 21 and 22, Class I Div2 ABCD, Class II Div1 EFG



#### Certification & Characteristics

Certification Standard: Sira 09 ATEX 1231X, IECEx Sir 09.0103X  
 Temperature: -60°C to +130°C  
 Exde I Mb  
 Exde IIC Gb  
 Extb IIC Db  
 CSA approved  
 Class I Div 2 ABCD  
 Class II Div 1 EFG

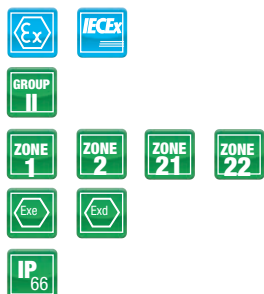
### ATEX Flameproof 90° Elbow Gland - Group I & II, Zones 1, 2, 21 and 22, Class I Div1 BCD (Rigid conduit only) Class II Div1 EFG



#### Certification & Characteristics

Certification Standard: Sira 09 ATEX 1231X, IECEx Sir 09.0103X  
 Temperature: -60°C to +130°C  
 Exde I Mb  
 Exde IIC Gb  
 Extb IIC Db  
 CSA approved  
 Class I Div 1 BCD (Rigid conduit only)  
 Class I Div 2 ABCD  
 Class II Div 1 EFG

### ATEX Flameproof Group II Gland - Group II, Zones 1, 2, 21 and 22



#### Certification & Characteristics

Certification Standard: Baseefa 06 ATEX 0256X  
 Temperature: -60°C to +80°C  
 IECEx Bas 06.0059X  
 Exd IIC  
 Exe II  
 ExtD A21

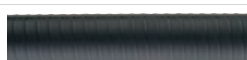
#### Related Products



General Oil Resistant F8-F11



High Temperature Conduit F8-F11



Low Fire Flexible Conduit F8-F11



Sealing Washers F24-F25

## Liquidtight Hazardous Area Gland



Technical Specifications								
See Note 1	Nominal Conduit Size (mm)	16	20	25	32	40	50	63
	Metric Thread Size (mm)	16	20	25	32	40	50	63
	NPT Thread Size (inch)	1/2	1/2	3/4	1	1-1/4	1-1/2	2
Type								
Metric - Brass		HAM0304G1	HAM0404G1	HAM0505G1	HAM0606G1	HAM0707G1	HAM0808G1	HAM0909G1
Metric - Nickel Plated		HAMM0304G1	HAMM0404G1	HAMM0505G1	HAMM0606G1	HAMM0707G1	HAMM0808G1	HAMM0909G1
Metric - Stainless Steel		HAMS0304G1	HAMS0404G1	HAMS0505G1	HAMS0606G1	HAMS0707G1	HAMS0808G1	HAMS0909G1
NPT Thread - Brass		HAA0304G1	HAA0404G1	HAA0505G1	HAA0606G1	HAA0707G1	HAA0808G1	HAA0909G1
NPT Thread - Nickel Plated		HAAM0304G1	HAAM0404G1	HAAM0505G1	HAAM0606G1	HAAM0707G1	HAAM0808G1	HAAM0909G1
NPT Thread - Stainless Steel		HAAS0304G1	HAAS0404G1	HAAS0505G1	HAAS0606G1	HAAS0707G1	HAAS0808G1	HAAS0909G1
See pages F6-F7 for suitable conduits								

See Note 1	Nominal Conduit Size (mm)	16	20	25	32	40	50	63
	Metric Thread Size (mm)	16	20	25	32	40	50	63
	NPT Thread Size (inch)	1/2	1/2	3/4	1	1-1/4	1-1/2	2
Type								
Metric - Brass		HAM0304E	HAM0404E	HAM0505E	HAM0606E	HAM0707E	HAM0808E	HAM0909E
Metric - Nickel Plated		HAMM0304E	HAMM0404E	HAMM0505E	HAMM0606E	HAMM0707E	HAMM0808E	HAMM0909E
NPT Thread - Brass		HAA0304E	HAA0404E	HAA0505E	HAA0606E	HAA0707E	HAA0808E	HAA0909E
NPT Thread - Nickel Plated		HAAM0304E	HAAM0404E	HAAM0505E	HAAM0606E	HAAM0707E	HAAM0808E	HAAM0909E
See pages F6-F7 for suitable conduits Stainless Steel available but elbow is Nickel Plated Brass Elbow supplied is for liquidtight conduit only								


See Note 1	Nominal Conduit Size (mm)	16	20	25	32	40	50	63
	Metric Thread Size (mm)	16	20	25	32	40	50	63
	NPT Thread Size (inch)	1/2	1/2	3/4	1	1-1/4	1-1/2	2
Type								
Metric - Brass		HAM0304	HAM0404	HAM0505	HAM0606	HAM0707	HAM0808	HAM0909
Metric - Nickel Plated		HAMM0304	HAMM0404	HAMM0505	HAMM0606	HAMM0707	HAMM0808	HAMM0909
Metric - Stainless Steel		HAMS0304	HAMS0404	HAMS0505	HAMS0606	HAMS0707	HAMS0808	HAMS0909
NPT Thread - Brass		HAA0304	HAA0404	HAA0505	HAA0606	HAA0707	HAA0808	HAA0909
NPT Thread - Nickel Plated		HAAM0304	HAAM0404	HAAM0505	HAAM0606	HAAM0707	HAAM0808	HAAM0909
NPT Thread - Stainless Steel		HAAS0304	HAAS0404	HAAS0505	HAAS0606	HAAS0707	HAAS0808	HAAS0909
See pages F6-F7 for suitable conduits								




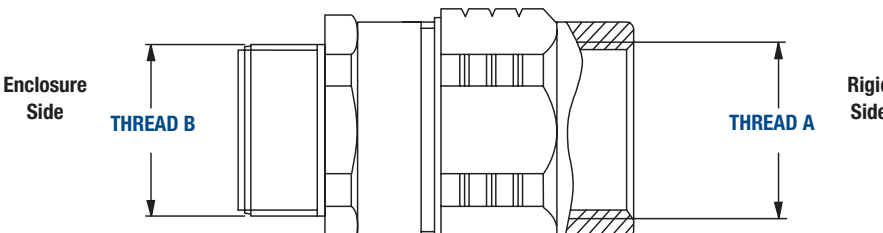


## Liquidtight Hazardous Area Gland

Constructed from either brass or stainless steel with an epoxy resin barrier, the Group I universal flameproof gland is a high quality, high specification product, ideal for Ex I & II 2 GD gas and dust, Exde IIC, Exe II applications and Extb II applications.

Universal Gland - Group I & II, Zones 1, 2, 21 and 22, Class I Div1 BCD (Rigid conduit only), Class II Div1 EFG	
 <div> <div>Ex</div> <div>Ex</div> <div>IECEx</div> <div>GROUP I</div> <div>GROUP II</div> <div>ZONE 1</div> <div>ZONE 2</div> <div>ZONE 21</div> <div>ZONE 22</div> <div>CLASS I</div> <div>DIV 1</div> <div>DIV 2</div> <div>CLASS II</div> <div>DIV 1</div> <div>Exde</div> <div>Extb</div> <div>IP 66</div> </div>	<div>Certification &amp; Standards</div> <p>           Certification Standard:      Temperature: -60°C to +130°C            Sira 09 ATEX 1231X, IECEx Sir 09.0103X            Exde I Mb            Exde IIC Gb            Extb IIIC Db            CSA approved            Class I Div 1 BCD (Rigid conduit only)            Class I Div 2 ABCD            Class II Div 1 EFG         </p>

Universal Swivel Gland - Group I & II, Zones 1, 2, 21 and 22, Class I Div1 BCD (Rigid conduit only) Class II Div1 EFG	
 <div> <div>Ex</div> <div>Ex</div> <div>IECEx</div> <div>GROUP I</div> <div>GROUP II</div> <div>ZONE 1</div> <div>ZONE 2</div> <div>ZONE 21</div> <div>ZONE 22</div> <div>CLASS I</div> <div>DIV 1</div> <div>DIV 2</div> <div>CLASS II</div> <div>DIV 1</div> <div>Exde</div> <div>Extb</div> <div>IP</div> </div>	<div>Certification &amp; Standards</div> <p>           Certification Standard:      Temperature: -60°C to +130°C            Sira 09 ATEX 1231X, IECEx Sir 09.0103X            Exde I Mb            Exde IIC Gb            Extb IIIC Db            CSA approved            Class I Div 1 BCD (Rigid conduit only)            Class I Div 2 ABCD            Class II Div 1 EFG         </p>

Technical Specifications	
	

### Part No. Explanation

HAM = Metric Male Thread

HAA = NPT Male Thread

0304 = Thread Sizes

**HAM 03 04 U**

Thread A = M16

Thread B = M20

## Liquidtight Hazardous Area Gland

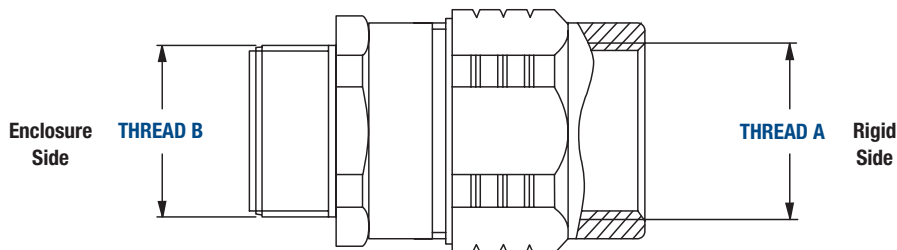


Technical Specifications								
Type	Metric Thread Size (mm)	20	20	25	32	40	50	63
	NPT Thread Size (inch)	3/8	1/2	3/4	1	1-1/4	1-1/2	2
Metric - Brass		HAM0304U	HAM0404U	HAM0505U	HAM0606U	HAM0707U	HAM0808U	HAM0909U
Metric - Nickel Plated		HAMM0304U	HAMM0404U	HAMM0505U	HAMM0606U	HAMM0707U	HAMM0808U	HAMM0909U
Metric - Stainless Steel		HAMS0304U	HAMS0404U	HAMS0505U	HAMS0606U	HAMS0707U	HAMS0808U	HAMS0909U
NPT Thread - Brass		HAA0304U	HAA0404U	HAA0505U	HAA0606U	HAA0707U	HAA0808U	HAA0909U
NPT Thread - Nickel Plated		HAAM0304U	HAAM0404U	HAAM0505U	HAAM0606U	HAAM0707U	HAAM0808U	HAAM0909U
NPT Thread - Stainless Steel		HAAS0304U	HAAS0404U	HAAS0505U	HAAS0606U	HAAS0707U	HAAS0808U	HAAS0909U

For use with all threaded conduits including Rigid

Type	Metric Thread Size (mm)	20	20	25	32	40	50	63
	NPT Thread Size (inch)	3/8	1/2	3/4	1	1-1/4	1-1/2	2
Metric - Brass		HAM0304U/SW	HAM0404U/SW	HAM0505U/SW	HAM0606U/SW	HAM0707U/SW	HAM0808U/SW	HAM0909U/SW
Metric - Nickel Plated		HAMM0304U/SW	HAMM0404U/SW	HAMM0505U/SW	HAMM0606U/SW	HAMM0707U/SW	HAMM0808U/SW	HAMM0909U/SW
Metric - Stainless Steel		HAMS0304U/SW	HAMS0404U/SW	HAMS0505U/SW	HAMS0606U/SW	HAMS0707U/SW	HAMS0808U/SW	HAMS0909U/SW
NPT Thread - Brass		HAA0304U/SW	HAA0404U/SW	HAA0505U/SW	HAA0606U/SW	HAA0707U/SW	HAA0808U/SW	HAA0909U/SW
NPT Thread - Nickel Plated		HAAM0304U/SW	HAAM0404U/SW	HAAM0505U/SW	HAAM0606U/SW	HAAM0707U/SW	HAAM0808U/SW	HAAM0909U/SW
NPT Thread - Stainless Steel		HAAS0304U/SW	HAAS0404U/SW	HAAS0505U/SW	HAAS0606U/SW	HAAS0707U/SW	HAAS0808U/SW	HAAS0909U/SW

For use with all threaded conduits including Rigid



### Part No. Explanation

HAM = Metric Male Thread  
HAA = NPT Male Thread  
0304 = Thread Sizes

**HAA 03 04 U**


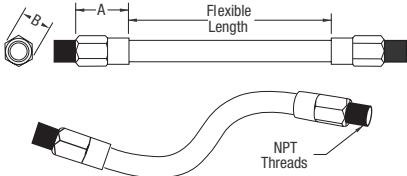



Thread A = 3/8 in. NPT      Thread B = 1/2 in. NPT

XP Flex™ Coupler



### Explosion-Proof Flexible Couplings

- Corrosion-resistant - ideal for washdown areas
- Flexible bronze construction with arc-resistant inner sleeve and brass fittings
- Terminated with two threaded female end fittings and male close nipples

<div>Certification &amp; Standards</div> <div>  <div> <div>ZONE 1</div> <div>CLASS I</div> </div> <div> <div>ZONE 2</div> <div>CLASS I</div> </div> <div> <div>ZONE 21</div> <div>DIV 2</div> </div> <div> <div>ZONE 22</div> <div>CLASS II</div> </div> <div> <div>DIV 1</div> <div>CLASS I</div> </div> <div> <div>CLASS III</div> </div> </div>			<div>Technical Specifications</div> <div>           1/2 in. and 3/4 in. Hub Sizes: Class I Div 1 &amp; 2 ABCD;            Class II Div 1 EFG, Class III            1 Hub Size: Class I Div 1 &amp; 2 CD;            Class II Div 1 EFG, Class III            UL Listed         </div>		
			<div>Dimensions</div> <div>  </div>		
<div>Related Products</div>			<div> <div>  <div>Enlargers, Reducers &amp; Thread Convertors</div> <div>F18-F21</div> </div> <div>  <div>Locknuts</div> <div>F24-F25</div> </div> <div>  <div>Sealing Washers</div> <div>F24-F25</div> </div> </div>		

## Explosion-Proof Flexible Couplings

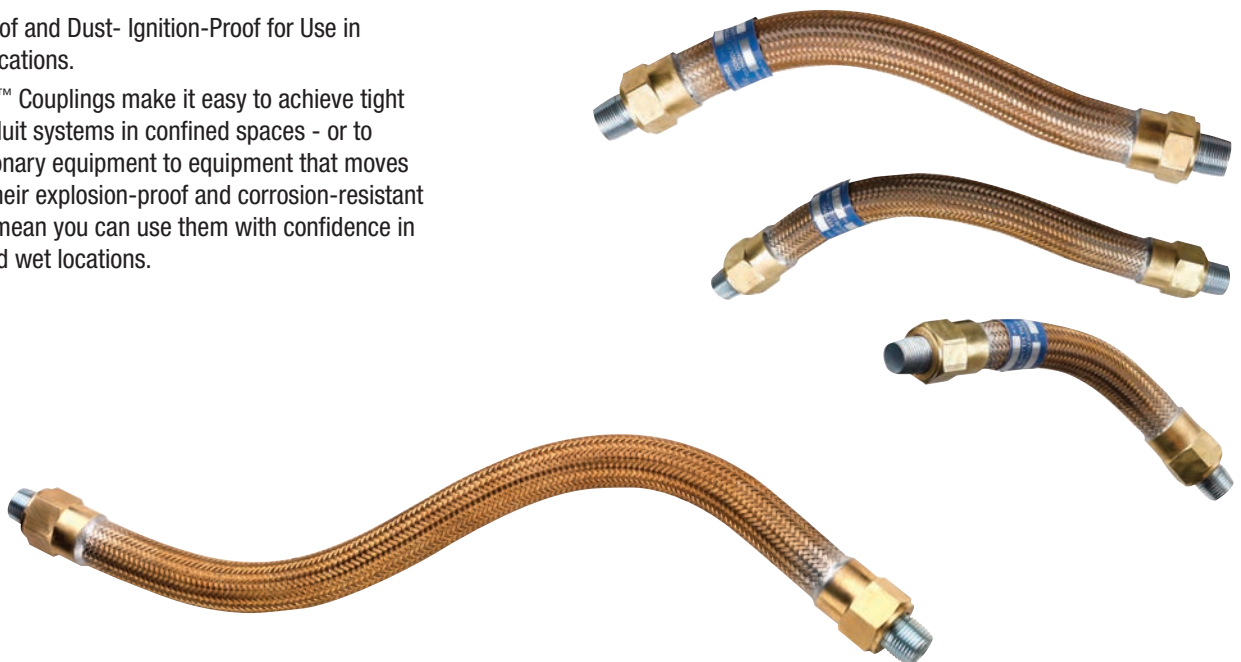


### Technical Specifications

Reference	Thread Type (inch)	Flexible Length (mm)	Dimensions (mm)	
			A	B
XPLFL16	1/2 NPT	150	39.1	36.6
XPLFL18	1/2 NPT	200	39.1	36.6
XPLFL110	1/2 NPT	250	39.1	36.6
XPLFL112	1/2 NPT	300	39.1	36.6
XPLFL115	1/2 NPT	380	39.1	36.6
XPLFL118	1/2 NPT	460	39.1	36.6
XPLFL124	1/2 NPT	610	39.1	36.6
XPLFL212	3/4 NPT	300	40.6	47.5
XPLFL215	3/4 NPT	380	40.6	47.5
XPLFL218	3/4 NPT	460	40.6	47.5
XPLFL224	3/4 NPT	610	40.6	47.5
XPLFL236	3/4 NPT	915	40.6	47.5
XPLFL318	1 NPT	460	50.08	58.7

Explosion-Proof and Dust- Ignition-Proof for Use in Hazardous Locations.

T&B® XP Flex™ Couplings make it easy to achieve tight bends in conduit systems in confined spaces - or to connect stationary equipment to equipment that moves or vibrates. Their explosion-proof and corrosion-resistant construction mean you can use them with confidence in hazardous and wet locations.



## Enlargers, Reducers & Thread Convertors

### Convertors & Accessories

Our comprehensive range of Adaptors and Reducers provide a method of matching threadforms on hazardous area approved equipment while ensuring the integrity and approval of the installation is maintained.

Manufactured in the UK, this new range of convertors meets the latest ATEX / IECEx & CSA / UL standards. This means that all the standards are marked on the product around the main body. This allows for them to be seen easily once installed, a key component of the new standard.

**Enlargers (/E)** are used where the thread size of the Female side of the device is larger than the male side.

**Reducers (/R)** are used where the thread size of the female side of device is smaller than the male side.

**Thread Convertors (/TC)** are used where a conversion is required between thread types, e.g Metric to PG.

T&B Enlargers, Reducers and thread convertors are designed for hazardous area applications and are certified to protection concepts Exd "Flameproof" and Exe "Increased Safety" for use in Zone 1, 2, 2.1, 2.2 applications. Under NEC Class I Div1 ABCD Class II Div1 EFG.

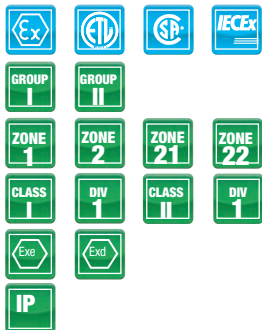
#### Metric - Technical Specification

Male External Thread	Female Internal Thread				
	M16	M20	M25	M32	M40
M16		EX/M16-M20/E	EX/M16-M25/E		
M20	EX/M20-M16/R		EX/M20-M25/E	EX/M20-M32/E	
M25	EX/M25-M16/R	EX/M25-M20/R		EX/M25-M32/E	EX/M25-M40/E
M32	EX/M32-M16/R	EX/M32-M20/R	EX/M32-M25/R		EX/M32-M40/E
M40	EX/M40-M16/R	EX/M40-M20/R	EX/M40-M25/R	EX/M40-M32/R	
M50	EX/M50-M16/R	EX/M50-M20/R	EX/M50-M25/R	EX/M50-M32/R	EX/M50-M40/R
M63	EX/M63-M16/R	EX/M63-M20/R	EX/M63-M25/R	EX/M63-M32/R	EX/M63-M40/R
M75	EX/M75-M16/R	EX/M75-M20/R	EX/M75-M25/R	EX/M75-M32/R	EX/M75-M40/R
PG9	EX/PG9-M16/TC	EX/PG9-M20/TC			
PG11	EX/PG11-M16/TC	EX/PG11-M20/TC			
PG13	EX/PG13-M16/TC	EX/PG13-M20/TC			
PG16	EX/PG16-M16/TC	EX/PG16-M20/TC	EX/PG16-M25/TC		
PG21	EX/PG21-M16/TC	EX/PG21-M20/TC	EX/PG21-M25/TC	EX/PG21-M32/TC	
PG29	EX/PG29-M16/TC	EX/PG29-M20/TC	EX/PG29-M25/TC	EX/PG29-M32/TC	EX/PG29-M40/TC
PG36	EX/PG36-M16/TC	EX/PG36-M20/TC	EX/PG36-M25/TC	EX/PG36-M32/TC	EX/PG36-M40/TC
PG42	EX/PG42-M16/TC	EX/PG42-M20/TC	EX/PG42-M25/TC	EX/PG42-M32/TC	EX/PG42-M40/TC
PG48	EX/PG48-M16/TC	EX/PG48-M20/TC	EX/PG48-M25/TC	EX/PG48-M32/TC	EX/PG48-M40/TC
NPT 3/8	EX/038-M16/TC				
NPT 1/2	EX/050-M16/TC	EX/050-M20/TC	EX/050-M25/TC		
NPT 3/4	EX/075-M16/TC	EX/075-M20/TC	EX/075-M25/TC	EX/075-M32/TC	
NPT 1	EX/100-M16/TC	EX/100-M20/TC	EX/100-M25/TC	EX/100-M32/TC	EX/100-M40/TC
NPT 1 1/4	EX/125-M16/TC	EX/125-M20/TC	EX/125-M25/TC	EX/125-M32/TC	EX/125-M40/TC
NPT 1 1/2	EX/150-M16/TC	EX/150-M20/TC	EX/150-M25/TC	EX/150-M32/TC	EX/150-M40/TC
NPT 2	EX/200-M16/TC	EX/200-M20/TC	EX/200-M25/TC	EX/200-M32/TC	EX/200-M40/TC
NPT 2 1/2	EX/250-M16/TC	EX/250-M20/TC	EX/250-M25/TC	EX/250-M32/TC	EX/250-M40/TC
NPT 3	EX/300-M16/TC	EX/300-M20/TC	EX/300-M25/TC	EX/300-M32/TC	EX/300-M40/TC



## Enlargers, Reducers & Thread Convertors

### Certification & Standards



Connector Description:  
 EX - Brass  
 EXN - Nickel Plated Brass  
 EXS - Stainless Steel 316  
 Certification Standard:  
 Baseefa07 ATEX 0247X, IECEx BAS 07.0090X  
 Class I Div1 ABCD, Class II Div1 EFG  
 (does not include M16 & 3/8 in.NPT  
 or unplated brass products)  
 Approved to UL  
 Approved to CSA

### Metric - Technical Specification

#### Female Internal Thread

M50	M63	M75
EX/M32-M50/E		
EX/M40-M50/E	EX/M40-M63/E	
	EX/M50-M63/E	EX/M50-M75/E
EX/M63-M50/R		EX/M63-M75/E
EX/M75-M50/R	EX/M75-M63/R	
EX/PG36-M50/TC		
EX/PG42-M50/TC	EX/PG42-M63/TC	
EX/PG48-M50/TC	EX/PG48-M63/TC	
EX/125-M50/TC		
EX/150-M50/TC	EX/150-M63/TC	
EX/200-M50/TC	EX/200-M63/TC	
EX/250-M50/TC		
EX/300-M50/TC		EX/300-M75/TC



## NPT - Technical Specification

Male External Thread	Female Internal Thread				
	NPT 3/8	NPT 1/2	NPT 3/4	NPT 1	NPT 1-1/4
M16	EX/M16-038/TC	EX/M16-050/TC			
M20		EX/M20-050/TC	EX/M20-075/TC		
M25		EX/M25-050/TC	EX/M25-075/TC	EX/M25-100/TC	
M32		EX/M32-050/TC	EX/M32-075/TC	EX/M32-100/TC	EX/M32-125/TC
M40		EX/M40-050/TC	EX/M40-075/TC	EX/M40-100/TC	EX/M40-125/TC
M50		EX/M50-050/TC	EX/M50-075/TC	EX/M50-100/TC	EX/M50-125/TC
M63		EX/M63-050/TC	EX/M63-075/TC	EX/M63-100/TC	EX/M63-125/TC
M75		EX/M75-050/TC	EX/M75-075/TC	EX/M75-100/TC	EX/M75-125/TC
PG9		EX/PG9-050/TC			
PG11		EX/PG11-050/TC			
PG13		EX/PG13-050/TC			
PG16		EX/PG16-050/TC	EX/PG16-075/TC		
PG21		EX/PG21-050/TC	EX/PG21-075/TC	EX/PG21-100/TC	
PG29		EX/PG29-050/TC	EX/PG29-075/TC	EX/PG29-100/TC	EX/PG29-125/TC
PG36		EX/PG36-050/TC	EX/PG36-075/TC	EX/PG36-100/TC	EX/PG36-125/TC
PG42		EX/PG42-050/TC	EX/PG42-075/TC	EX/PG42-100/TC	EX/PG42-125/TC
PG48		EX/PG48-050/TC	EX/PG48-075/TC	EX/PG48-100/TC	EX/PG48-125/TC
NPT 1/2			EX/050-075/E		
NPT 3/4		EX/075-050/R		EX/075-100/E	
NPT 1		EX/100-050/R	EX/100-075/R		EX/100-125/E
NPT 1-1/4		EX/125-050/R	EX/125-075/R	EX/125-100/R	
NPT 1-1/2		EX/150-050/R	EX/150-075/R	EX/150-100/R	EX/150-125/R
NPT 2		EX/200-050/R	EX/200-075/R	EX/200-100/R	EX/200-125/R
NPT 2-1/2		EX/250-050/R	EX/250-075/R	EX/250-100/R	EX/250-125/R
NPT 3		EX/300-050/R	EX/300-075/R	EX/300-100/R	EX/300-125/R

## PG - Technical Specification

Filets mâles externes	Filets femelles internes				
	PG9	PG11	PG13	PG16	PG21
M16	EX/M16-PG9/TC	EX/M16-PG11/TC	EX/M16-PG13/TC		
M20	EX/M20-PG9/TC	EX/M20-PG11/TC	EX/M20-PG13/TC	EX/M20-PG16/TC	
M25	EX/M25-PG9/TC	EX/M25-PG11/TC	EX/M25-PG13/TC	EX/M25-PG16/TC	EX/M25-PG21/TC
M32	EX/M32-PG9/TC	EX/M32-PG11/TC	EX/M32-PG13/TC	EX/M32-PG16/TC	EX/M32-PG21/TC
M40	EX/M40-PG9/TC	EX/M40-PG11/TC	EX/M40-PG13/TC	EX/M40-PG16/TC	EX/M40-PG21/TC
M50	EX/M50-PG9/TC	EX/M50-PG11/TC	EX/M50-PG13/TC	EX/M50-PG16/TC	EX/M50-PG21/TC
M63	EX/M63-PG9/TC	EX/M63-PG11/TC	EX/M63-PG13/TC	EX/M63-PG16/TC	EX/M63-PG21/TC
M75	EX/M75-PG9/TC	EX/M75-PG11/TC	EX/M75-PG13/TC	EX/M75-PG16/TC	EX/M75-PG21/TC
PG11	EX/PG11-PG9/R				
PG13	EX/PG13-PG9/R	EX/PG13-PG11/R			
PG16	EX/PG16-PG9/R	EX/PG16-PG11/R	EX/PG16-PG13/R		EX/P16-PG21/E
PG21	EX/PG21-PG9/R	EX/PG21-PG11/R	EX/PG21-PG13/R	EX/PG21-PG16/R	
PG29	EX/PG29-PG9/R	EX/PG29-PG11/R	EX/PG29-PG13/R	EX/PG29-PG16/R	EX/PG29-PG21/R
PG36	EX/PG36-PG9/R	EX/PG36-PG11/R	EX/PG36-PG13/R	EX/PG36-PG16/R	EX/PG36-PG21/R
PG42	EX/PG42-PG9/R	EX/PG42-PG11/R	EX/PG42-PG13/R	EX/PG42-PG16/R	EX/PG42-PG21/R
PG48	EX/PG48-PG9/R	EX/PG48-PG11/R	EX/PG48-PG13/R	EX/PG48-PG16/R	EX/PG48-PG21/R
NPT 1/2	EX/050-PG9/TC	EX/050-PG11/TC	EX/050-PG13/TC	EX/050-PG16/TC	
NPT 3/4	EX/075-PG9/TC	EX/075-PG11/TC	EX/075-PG13/TC	EX/075-PG16/TC	EX/075-PG21/TC
NPT 1	EX/100-PG9/TC	EX/100-PG11/TC	EX/100-PG13/TC	EX/100-PG16/TC	EX/100-PG21/TC
NPT 1-1/4	EX/125-PG9/TC	EX/125-PG11/TC	EX/125-PG13/TC	EX/125-PG16/TC	EX/125-PG21/TC
NPT 1-1/2	EX/150-PG9/TC	EX/150-PG11/TC	EX/150-PG13/TC	EX/150-PG16/TC	EX/150-PG21/TC
NPT 2	EX/200-PG9/TC	EX/200-PG11/TC	EX/200-PG13/TC	EX/200-PG16/TC	EX/200-PG21/TC

## NPT - Technical Specification

### Female Internal Thread

NPT 1-1/2	NPT 2	NPT 2-1/2	NPT 3
EX/M40-150/TC			
EX/M50-150/TC	EX/M50-200/TC		
EX/M63-150/TC	EX/M63-200/TC		
EX/M75-150/TC	EX/M75-200/TC		
EX/PG29-150/TC			
EX/PG36-150/TC			
EX/PG42-150/TC	EX/PG42-200/TC		
EX/PG48-150/TC	EX/PG48-200/TC		
EX/125-150/E			
	EX/150-200/E		
EX/200-150/R			
EX/250-150/R	EX/250-200/R		EX/250-300/E
EX/300-150/R	EX/300-200/R	EX/300-250/R	



## NPT - Technical Specification

### Filets femelles internes

PG29	PG36	PG42	PG48
EX/M32-PG29/TC			
EX/M40-PG29/TC	EX/M40-PG36/TC		
EX/M50-PG29/TC	EX/M50-PG36/TC	EX/M50-PG42/TC	
EX/M63-PG29/TC	EX/M63-PG36/TC	EX/M63-PG42/TC	EX/M63-PG48/TC
EX/M75-PG29/TC	EX/M75-PG36/TC	EX/M75-PG42/TC	EX/M75-PG48/TC
EX/PG21-PG29/E			
	EX/PG29-PG36/E		
EX/PG36-PG29/R		EX/PG36-PG48/E	
EX/PG42-PG29/R	EX/PG42-PG36/R		EX/PG42-PG48/E
EX/PG48-PG29/R	EX/PG48-PG36/R	EX/PG48-PG42/R	
EX/100-PG29/TC			
EX/125-PG29/TC	EX/125-PG36/TC		
EX/150-PG29/TC	EX/150-PG36/TC	EX/150-PG42/TC	
EX/200-PG29/TC	EX/200-PG36/TC	EX/200-PG42/TC	EX/200-PG48/TC



## Stopping Plugs

### Standard Exd Stopping Plug

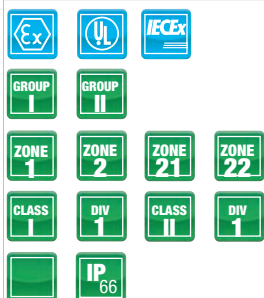


#### Certification & Standards

Certification Standard:  
Baseefa 08 ATEX 6324  
IECEx BAS 08.0109X  
Exd I and Exd IIC

UL Listed (Nickel Plated Brass and  
Stainless Steel only)  
Class I Div 1 ABCD  
Class II Div 1 EFG

### Tamperproof Exd Stopping Plug - Group I & II, Zones 1, 2, 21 and 22, Class I Div 1 ABCD, Class II Div 1 EFG

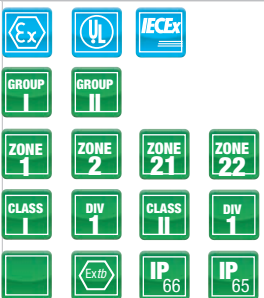


#### Certification & Standards

Certification Standard:  
Baseefa 08 ATEX 6324  
IECEx BAS 08.0109X  
Exd I and Exd IIC

UL Listed (Nickel Plated Brass and  
Stainless Steel only)  
Class I Div 1 ABCD  
Class II Div 1 EFG

### Hex Head Exe Stopping Plug - Group I & II, Zones 1, 2, 21 and 22, Class I Div 1 ABCD, Class II Div 1 EFG

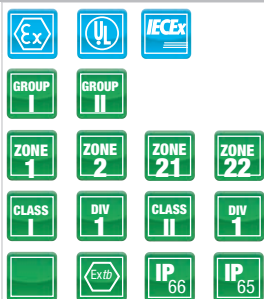


#### Certification & Standards

Certification Standard:  
Baseefa 08 ATEX 0325X  
IECEx BAS 08.0108X  
Exe I, Exe II and Extb IIIC  
Temperature: -60°C to +80°C

UL Listed (Nickel Plated Brass and  
Stainless Steel only)  
IP 65 for plain holes  
IP 66 for threaded holes  
Class I Div 1 ABCD  
Class II Div 1 EFG

### Dome Head Exe Stopping Plug - Group I & II, Zones 1, 2, 21 and 22, Class I Div 1 ABCD, Class II Div 1 EFG



#### Certification & Standards

Certification Standard:  
Baseefa 08 ATEX 6324  
IECEx BAS 08.0109X  
Exd I and Exd IIC

UL Listed (Nickel Plated Brass and  
Stainless Steel only)  
Class I Div 1 ABCD  
Class II Div 1 EFG

## Stopping Plugs

For use in potentially explosive atmospheres. Manufactured from Brass, Nickel Plated Brass or Stainless Steel.



Standard Exd Stopping Plug									Specifications	
See Note 1	NPT Thread Size (inch)	3/8	1/2	3/4	1	1-1/4	1-1/2	2		
	Metric Thread Size (mm)	20	20	25	32	40	50	63		
Type	PG Thread Size	PG9	PG11	PG13	PG16	PG21	PG29	PG36	PG42	PG48
NPT Thread - Brass		EX/038/SP	EX/050/SP	EX/075/SP	EX/100/SP	EX/125/SP	EX/150/SP	EX/200/SP	–	–
Metric - Brass		EX/M16/SP	EX/M20/SP	EX/M25/SP	EX/M32/SP	EX/M40/SP	EX/M50/SP	EX/M63/SP	–	–
PG Thread - Brass		EX/PG9/SP	EX/PG11/SP	EX/PG13/SP	EX/PG16/SP	EX/PG21/SP	EX/PG29/SP	EX/PG36/SP	EX/PG42/SP	EX/PG48/SP
For Nickel Plated Brass, add the letter N after the EX prefix and for Stainless Steel, add the letter S after the EX prefix, e.g. EXS/M16/SP Does not include M16 & 3/8 NPT or Unplated Brass products										

Tamperproof Exd Stopping Plug - Group I & II, Zones 1, 2, 21 and 22, Class I Div 1 ABCD, Class II Div 1 EFG										
See Note 1	NPT Thread Size (inch)	3/8	1/2	3/4	1	1-1/4	1-1/2	2		
	Metric Thread Size (mm)	20	20	25	32	40	50	63		
Type	PG Thread Size	PG9	PG11	PG13	PG16	PG21	PG29	PG36	PG42	PG48
NPT Thread - Brass		EX/038/TSP	EX/050/TSP	EX/075/TSP	EX/100/TSP	EX/125/TSP	EX/150/TSP	EX/200/TSP	–	–
Metric - Brass		EX/M16/TSP	EX/M20/TSP	EX/M25/TSP	EX/M32/TSP	EX/M40/TSP	EX/M50/TSP	EX/M63/TSP	–	–
PG Thread - Brass (EX)		EX/PG9/TSP	EX/PG11/TSP	EX/PG13/TSP	EX/PG16/TSP	EX/PG21/TSP	EX/PG29/TSP	EX/PG36/TSP	EX/PG42/TSP	EX/PG48/TSP
For Nickel Plated Brass, add the letter N after the EX prefix and for Stainless Steel, add the letter S after the EX prefix, e.g. EXS/M16/TSP Does not include M16 & 3/8 NPT or Unplated Brass products										

Hex Head Exe Stopping Plug - Group I & II, Zones 1, 2, 21 and 22, Class I Div 1 ABCD, Class II Div 1 EFG										
See Note 1	NPT Thread Size (inch)	3/8	1/2	3/4	1	1-1/4	1-1/2	2		
	Metric Thread Size (mm)	20	20	25	32	40	50	63		
Type	PG Thread Size	PG9	PG11	PG13	PG16	PG21	PG29	PG36	PG42	PG48
Metric - Brass		EX/M16/HSP	EX/M20/HSP	EX/M25/HSP	EX/M32/HSP	EX/M40/HSP	EX/M50/HSP	EX/M63/HSP	–	–
PG Thread - Brass		EX/PG9/HSP	EX/PG11/HSP	EX/PG13/HSP	EX/PG16/HSP	EX/PG21/HSP	EX/PG29/HSP	EX/PG36/HSP	EX/PG42/HSP	EX/PG48/HSP
For Nickel Plated Brass, add the letter N after the EX prefix and for Stainless Steel, add the letter S after the EX prefix, e.g. EXS/M16/HSP Does not include M16 & 3/8 NPT or Unplated Brass products										

Dome Head Exe Stopping Plug - Group I & II, Zones 1, 2, 21 and 22, Class I Div 1 ABCD, Class II Div 1 EFG										
See Note 1	NPT Thread Size (inch)	3/8	1/2	3/4	1	1-1/4	1-1/2	2		
	Metric Thread Size (mm)	20	20	25	32	40	50	63		
Type	PG Thread Size	PG9	PG11	PG13	PG16	PG21	PG29	PG36	PG42	PG48
Metric - Brass		EX/M16/DSP	EX/M20/DSP	EX/M25/DSP	EX/M32/DSP	EX/M40/DSP	EX/M50/DSP	EX/M63/DSP	–	–
PG Thread - Brass		EX/PG9/DSP	EX/PG11/DSP	EX/PG13/DSP	EX/PG16/DSP	EX/PG21/DSP	EX/PG29/DSP	EX/PG36/DSP	EX/PG42/DSP	EX/PG48/DSP
For Nickel Plated Brass, add the letter N after the EX prefix and for Stainless Steel, add the letter S after the EX prefix, e.g. EXS/M16/DSP Does not include M16 & 3/8 NPT or Unplated Brass products Products supplied with sealing washers and 'O' rings										
Note 1: In Canada, as per CEC Part I, trade size are respectively 3/8 (12), 1/2 (16), 3/4 (21), 1 (27), 1-1/4 (35), 1-1/2 (41) and 2 (53).										



## Couplers, Sealing Washers & Locknuts

For use in potentially explosive atmospheres. Manufactured from either Brass, Nickel Plated Brass and Stainless Steel or Nylon and Fibre.

### Coupler - Female to Female thread couplers for use in both Exd and Exe applications



#### Certification & Standards

Certification Standard:  
Baseefa 08 ATEX 0359U  
IECEx BAS 08.0121U

Temperature: -60°C to +200°C

### Hex Locknut - for Metric Threads and NPT Threads (Nickel Plated Brass only)



### Sealing Joint Washer - for use with all ATEX and IECEx approved products (Nylon only)



#### Certification & Standards

Certification Standard:  
Nylon Metric approved for use  
with all ATEX / IECEx products

### Earth Tag - to be used to create an earthing bond on an enclosure, when a cable gland is used



## Couplers, Sealing Washers & Locknuts



### Coupler - Female to Female thread couplers for use in both Exd and Exe applications

See Note 1	Metric Thread Size (mm)	16	20	25	32	40	50	63	75
Type	PG Thread Size	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2
Metric - Brass		EX/M16/C	EX/M20/C	EX/M25/C	EX/M32/C	EX/M40/C	EX/M50/C	EX/M63/C	EX/M75/C
NPT Thread - Brass		EX/038/C	EX/050/C	EX/075/C	EX/100/C	EX/125/C	EX/150/C	EX/200/C	EX/250/P

For Nickel Plated Brass, add the letter N after the EX prefix and for Stainless Steel, add the letter S after the EX prefix, e.g. EXS/M16/C  
Does not include M16 & 3/8 NPT or Unplated Brass products

### Hex Locknut - for Metric Threads and NPT Threads (Nickel Plated Brass only)

See Note 1	Metric Thread Size (mm)	16	20	25	32	40	50	63	75
Type	PG Thread Size	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2
Metric - Stainless Steel		—	MXWH04	MXWH05	MXWH06	MXWH07	MXWH08	—	—
Metric - Brass		WHMB03	WHMB04	WHMB05	WHMB06	WHMB07	WHMB08	—	—
Metric - Nickel Plated Brass		WHMM03	WHMM04	WHMM05	WHMM06	WHMM07	WHMM08	WHMM09	—
NPT Thread - Nickel Plated Brass		—	WHAM04	WHAM05	WHAM06	WHAM07	WHAM08	WHAM09	—

### Sealing Joint Washer - for use with all ATEX and IECEx approved products (Nylon only)

See Note 1	Metric Thread Size (mm)	16	20	25	32	40	50	63	75
Type	PG Thread Size	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2
Type	Outside Diameter (mm)	22	26	34.3	41.5	52	66.5	84.5	—
Type	Thickness (mm)	1.6	1.6	1.7	1.7	2	2	2	—
Metric - Nylon (ATEX / IECEx approved)		EXFM03	EXFM04	EXFM05	EXFM05	EXFM07	EXFM08	EXFM09	—
Metric - Fibre		EXFM03F	EXFM04F	EXFM05F	EXFM05F	EXFM07F	EXFM08F	—	—


































### Earth Tag - to be used to create an earthing bond on an enclosure, when a cable gland is used

See Note 1	Metric Thread Size (mm)	16	20	25	32	40	50	63	75
Type	PG Thread Size	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2
Earth Tag - Brass		EX/M16/TAG	EX/M20/TAG	EX/M25/TAG	EX/M32/TAG	EX/M40/TAG	EX/M53/TAG	EX/M63/TAG	EX/M75/TAG

Note 1: In Canada, as per CEC Part I, trade size are respectively 3/8 (12), 1/2 (16), 3/4 (21), 1 (27), 1-1/4 (35), 1-1/2 (41) and 2 (53).

Ex Standards Worldwide



Key Symbols											
Product Approvals											
											
ATEX	UL	CSA	IECEx	GOST	IMMETRO	INTERTEK					
Product Characteristics											
											
Zone 1	Zone 2	Zone 21	Zone 22	Division 1	Division 2	Group I	Group II	Class I	Class II	Class III	IP Rating
											
Type Exd	Type Exe	Type Exn	Type Exi	Type Exde	Type Extb						
Market Segment Icons											
											
Utilities / Power	Automotive	Marine & Shipbuilding	Food & Beverage	Onshore & Offshore	Storage / Warehouse	Chemical & Pharma	Mining				