Electrical equipment for explosive atmospheres

ITTIII

AppletonTM Electrical Solutions Electrical products by Emerson designed for meet ATEX and IECEx specifications.



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Emerson offers a wide range of electrical devices for explosive atmospheres

Our solutions are ideal for industrial facilities storing hazardous substances in the form of gas, vapour or dust, or operating under conditions where hazardous substances can be found in Zones 1 and 2 - 21 and 22 locations.

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LELED | Linmaster[™] LED Zone 1 Series Luminaires | Zones 1 and 2 – 21 and 22

| | Standard version | Catalogue Number | |
|--|--|--|---------------------------------|
| | Ex eb mb IIC with diffused cover – CCT: 5000K ${\rm \oplus}$ | Unarmoured cable + 1x M25 cable gland | Armoured cable M20 entries ② |
| | 3144 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc | LELED3CBUSND | LELED3CBUSAD |
| | 3616 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc | LELED4CBUSND | LELED4CBUSAD |
| | 5224 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc | LELED5CBUSND | LELED5CBUSAD |
| | 6231 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc | LELED6CBUSND | LELED6CBUSAD |
| | 6964 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc | LELED7CBUSND | LELED7CBUSAD |
| | Emergency version – 180 minutes battery backup | Catalogue Number | |
| | Ex db eb mb IIC with diffused cover – CCT: 5000K ${\rm \tiny O}$ | Unarmoured cable + 1x M25 cable gland | Armoured cable M20 entries ② |
| | 3139 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc | LELED3CBUSNDE | LELED3CBUSADE |
| | 5289 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc | LELED5CBUSNDE | LELED5CBUSADE |
| | 6231 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc | LELED6CBUSNDE | LELED6CBUSADE |
| | 6964 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc | LELED7CBUSNDE | LELED7CBUSADE |

LNLED | Linmaster LED Zone 2 Series Luminaires | Zones 2 – 21 and 22

| | Standard version | Catalogue Number | |
|--|--|--|---------------------------------|
| | Ex ec IIC with diffused cover – CCT: 5000K ${\rm \odot}$ | Unarmoured cable + 1x M25 cable gland | Armoured cable M20 entries ② |
| | 3504 lm - 100-277 Vac, 50/60 Hz - 125-300 Vdc | LNLED3CBUSND | LNLED3CBUSAD |
| | 4045 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc | LNLED4CBUSND | LNLED4CBUSAD |
| | 5751 lm - 100-277 Vac, 50/60 Hz - 125-300 Vdc | LNLED5CBUSND | LNLED5CBUSAD |
| | 6857 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc | LNLED6CBUSND | LNLED6CBUSAD |
| | 7616 lm - 100-277 Vac, 50/60 Hz - 125-300 Vdc | LNLED7CBUSND | LNLED7CBUSAD |
| | Emergency version – 180 minutes battery backup | Catalogue Number | |
| | Ex ec IIC with diffused cover – CCT: 5000K ${\rm \odot}$ | Unarmoured cable + 1x M25 cable gland | Armoured cable M20 entries ② |
| | 3504 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc | LNLED3CBUSNDE | LNLED3CBUSADE |
| | 5769 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc | LNLED5CBUSNDE | LNLED5CBUSADE |
| | 6857 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc | LNLED6CBUSNDE | LNLED6CBUSADE |
| | 7616 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc | LNLED7CBUSNDE | LNLED7CBUSADE |

FDLED | FDLED Series LED Luminaires | Zones 1 and 2 – 21 and 22

| | Standard version | |
|---|--|--------------------|
| | Ex db IIC with diffused lens – CCT: 5650K | Catalogue Number ③ |
| | 2125 lm – 110-254 Vac, 50/60 Hz – 2x M20 entries | FDLED25BU2D |
| · | 4350 lm – 110-254 Vac, 50/60 Hz – 2x M20 entries | FDLED50BU2D |
| | Emergency version – 180 minutes battery backup | |
| | Ex db II C with diffused lens - CCT: 5650K | Catalogue Number ③ |
| | 2125 lm – 110-254 Vca, 50/60 Hz – 2x M20 entries | FDLED25BU2DE |
| | 4350 lm – 110-254 Vca, 50/60 Hz – 2x M20 entries | FDLED50BU2DE |
| | | |

| FDBAES FDBAESLED Series Lighting Units Zones 1 and 2 – 21 and 22 | | | |
|--|---|--------------------|--|
| | Ex db IIC | Catalogue Number ③ | |
| | Self-contained emergency LED lighting system | 60 minutes | |
| | 55 lm – 230 Vac, 50/60 Hz – M20 – Escape route lighting | FDBAESLEDEM | |
| | 540 lm – 230 Vac, 50/60 Hz – M20 – Space lighting | FDBAESLEDSLM | |
| | Label – emergency exit 🔣 🗸 🏠 | BAESLABEL200 | |

Also available in 4000K, 3000K, 2200K and Green (for safety shower). Please refer to the Appleton catalogue or visit our website, www.appleton.emerson.com.
 Must order armoured cable glands separately. Two M20 entries are with brass earth continuity plate for armoured cable.
 Must order armoured cable glands separately.

| AMLZ Areamaster™ Generation 2 Series Low Lumen Zone 1 Floodlight Zones 1 and 2 – 21 and 22 | | | |
|--|--|--------------------|--------------|
| | Ex eb mb IIC – CCT: 5000K ① | Catalogue Number ② | |
| | 1x M20 adaptor supplied | Clear Lens | Frosted Lens |
| | 9000 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | AMLZL6CG6BUM | AMLZL6CF6BUM |
| | 14000 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | AMLZL7CG6BUM | AMLZL7CF6BUM |
| | 18500 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | AMLZL8CG6BUM | AMLZL8CF6BUM |

| AMLZ Areamaster Generation 2 Series Low Lumen Zone 1 Floodlight Zones 1 and 2 – 21 and 22 | | | |
|---|--|--------------------|--------------|
| ~ | Ex eb mb IIC – CCT: 3000K | Catalogue Number ② | |
| | 1x M20 adaptor supplied | Clear Lens | Frosted Lens |
| | 9000 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | AMLZL6WG6BUM | AMLZL6WF6BUM |
| | 14000 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | AMLZL7WG6BUM | AMLZL7WF6BUM |
| | 18500 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | AMLZL8WG6BUM | AMLZL8WF6BUM |

AMHZ | Areamaster Generation 2 Series High Lumen Zone 1 Floodlight | Zones 1 and 2 – 21 and 22

| | Ex eb mb IIC – CCT: 5000K ① | Catalogue Number ② | |
|--|--|--------------------|--------------|
| | 1x M20 adaptor supplied | Clear Lens | Frosted Lens |
| | 23000 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | AMHZL1CG6BUM | AMHZL1CF6BUM |
| | 28000 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | AMHZL2CG6BUM | AMHZL2CF6BUM |
| | 35000 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | AMHZL3CG6BUM | AMHZL3CF6BUM |

AMLG | Areamaster Generation 2 Series Low Lumen Floodlight | Zones 2 – 21 and 22

| | Ex ec IIC – CCT: 5000K ① | Catalogue Number ② | |
|--|--|--------------------|--------------|
| | 1x M20 adaptor supplied | Clear Lens | Frosted Lens |
| | 9500 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | AMLGL6CG6BUM | AMLGL6CF6BUM |
| | 15000 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | AMLGL7CG6BUM | AMLGL7CF6BUM |
| | 19500 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | AMLGL8CG6BUM | AMLGL8CF6BUM |

AMLG | Areamaster Generation 2 Series Low Lumen Floodlight | Zones 2 – 21 and 22

| | , and the second s | | |
|--|--|--------------------|--------------|
| | Ex ec IIC – CCT: 3000K | Catalogue Number ② | |
| | 1x M20 adaptor supplied | Clear Lens | Frosted Lens |
| | 7650 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | AMLGL6WG6BUM | AMLGL6WF6BUM |
| | 11500 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | AMLGL7WG6BUM | AMLGL7WF6BUM |
| | 15000 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | AMLGL8WG6BUM | AMLGL8WF6BUM |

AMLH | Areamaster Generation 2 Series High Lumen Floodlight | Zones 2 – 21 and 22

| | Ex ec IIC - CCT: 5000K ① | Catalogue Number ② | |
|--|--|--------------------|--------------|
| | 1x M20 adaptor supplied | Clear Lens | Frosted Lens |
| | 24000 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | AMLHL1CG6BUM | AMLHL1CF6BUM |
| | 30000 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | AMLHL2CG6BUM | AMLHL2CF6BUM |

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| | CE UKCA IECEE CB: IK08 IP66 | Catalogue Number ① | |
|--|--|--------------------|---------------|
| | 1x M20 adaptor supplied | Clear Lens | Frosted Lens |
| | 9500 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | IAMLGL6CG6BUM | IAMLGL6CF6BUM |
| | 15000 lm - 120-277 Vac, 50/60 Hz - 125-300 Vdc | IAMLGL7CG6BUM | IAMLGL7CF6BUM |
| | 19500 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | IAMLGL8CG6BUM | IAMLGL8CF6BUM |

| IAMLH Industrial Areamaster Generation 2 Series High Lumen Floodlight For Harsh Industrial Environments | | | |
|---|--|--------------------|---------------|
| | CE UKCA IECEE CB: IK08 IP66 | Catalogue Number ① | |
| | 1x M20 adaptor supplied | Clear Lens | Frosted Lens |
| | 24000 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | IAMLHL1CG6BUM | IAMLHL1CF6BUM |
| | 30000 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | IAMLHL2CG6BUM | IAMLHL2FG6BUM |
| | 38000 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | IAMLHL3CG6BUM | IAMLHL3FG6BUM |

| CLED CLED Series LED Luminaires Zones 1 and 2 – 21 and 22 | | | | |
|---|---|------------------|-------------------|--|
| | Ex db eb IIC | Catalogue Number | | |
| | 1x M20 adaptor supplied | Standard Version | Emergency Version | |
| | 2900 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | CLED03CG51LBUD | CLED03CG51LBUDE | |
| | 5000 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | CLED05CG51LBUD | CLED05CG51LBUDE | |

| MLT HB LED Multilens Bulkhead Luminaires Zones 2 – 21 and 22 2 Catalogue numbers to order: luminaire + mounting hood | | | |
|---|--|------------------|--|
| | Ex ec IIC; Ex tb IIIC; Ex tc IIIC | Catalogue Number | |
| | 3500 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc – CCT: 5000K | MLTCL3CD3DU | |
| | 3500 lm - 24-48 Vdc, 50/60 Hz - CCT: 5000K | MLTCL3CD3D2 | |
| | 3500 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc – CCT: 4000K | MLTCL3ND3DU | |

| IMLT Industrial HB LED Multilens Bulkhead Luminaires For Harsh Industrial Environments 2 Catalogue numbers to order: Iuminaire + mounting hood | | | |
|---|--|------------------|--|
| A. | CE UKCA IECEE CB: IK08 IP66 | Catalogue Number | |
| | 3500 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc – CCT: 5000K | IMLTCL3CD3DU | |
| | 3500 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc –CCT: 4000K | IMLTCL3ND3DU | |

| MLT and IMLT Mounting Hood for HB LED Multilens Bulkhead Luminaires | | | |
|---|--|------------------|--|
| M | Mounting Hood | Catalogue Number | |
| 20.5 | Five Hubs, Four Close-Up Plugs, One M20 Adapter ${\rm \oplus}$ | KPCM20-MLT | |

| | Ex ec ia mb IIC, Ex ia tb IIIC; Ex ia tc IIIC ${\rm I\!U}$ | Catalogue Number ② | |
|---|---|---------------------|-----------------------|
| | Polycarbonate globe | Clear | Frosted |
| | Up to 9,500 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | MGCL9CP5BU7P | MGCL9CD5BU7P |
| | es LED Luminaire Zones 1 and 2 – 21 and 22 o order: luminaire + mounting hood | | |
| | Ex eb mb op is IIC – CCT: 5000K ${\rm \oplus}$ Type V Wide light distribution pattern | Catalogue Number @ | |
| A-MA | Polycarbonate globe | Clear | Frosted |
| San and the second s | 3800 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | MGZL3CPWBU | MGZL3CDWBU |
| | 5600 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | MGZL5CPWBU | MGZL5CDWBU |
| | 7900 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | MGZL7CPWBU | MGZL7CDWBU |
| | Series Luminaire Zones 2 – 21 and 22 o order: luminaire + mounting hood | | |
| atalogue numbers t | Ex ec IIC - CCT: 5000K ① | Catalogue Number 2 | |
| | Ex ec IIC – CCT: 5000K ① Type V light distribution pattern | | |
| | | Clear | Frosted |
| | Type V light distribution pattern | Clear MLGL3CP5BU | Frosted MLGL3CD5BU |
| | Type V light distribution pattern Polycarbonate globe | | |
| | Type V light distribution pattern Polycarbonate globe 3500 lm – 120-277 Vac, 50/60 Hz – 125-300 Vdc | MLGL3CP5BU | MLGL3CD5BU |

| | Ex ec IIC Ex op is tb IIIC Ex tc IIIC | Catalogue Number ② | |
|--|--|--------------------|-------------|
| | Polycarbonate globe | Clear | Frosted |
| | 3300 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc – CCT: 5000K | MLLED3CP5BU | MLLED3CD5BU |
| | 3300 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc – CCT: 4000K | MLLED3NP5BU | MLLED3ND5BU |

IMLLED | Industrial Mercmaster LED Low Profile Series | For Harsh Industrial Environments 2 Catalogue numbers to order: luminaire + mounting hood

| | CE UKCA IECEE CB: IK08 IP66 | Catalogue Number ② | |
|--|--|--------------------|--------------|
| | Polycarbonate globe | Clear | Frosted |
| | 3300 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc – CCT: 5000K | IMLLED3CP5BU | IMLLED3CD5BU |
| | 3300 lm – 100-277 Vac, 50/60 Hz – 125-300 Vdc – CCT: 4000K | IMLLED3NP5BU | IMLLED3ND5BU |

MGZ and MLG | Mounting Hoods for Mercmaster Luminaires

| | Catalogue Number | |
|---|---|--|
| s, Four Close-Up Plugs, One M20 Adapter $@ \Im$ | KPCM20 | |
| Four Close-Up Plugs, One M20 Adapter ②③ | KPWBM20 | |
| ne 1-1/2" NPT entry | KPS150 | |
| ne 1-1/2" NPT entry | KPST150 | |
| or use with KPCM20 | Z00927 | |
| | s, Four Close-Up Plugs, One M20 Adapter ②③ Four Close-Up Plugs, One M20 Adapter ②③ ne 1-1/2" NPT entry ne 1-1/2" NPT entry | |

① Also available in 3000K and 4000K. Please refer to the Appleton catalogue or visit our website, www.appleton.emerson.com.

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Must order armoured cable glands separately.
 Supplied with 2 nickel plated brass adaptors and four polyamide plugs.

Fluorescent Lighting

| FE FE Series Nonmetallic Fluorescent Luminaires (Zones 1 and 2 – 21 and 22) | | | | |
|---|---|--|------------------------------|--|
| | Ex de IIC – Standard version (fluorescent lamps not supplied) | Catalogue Number ① | | |
| | | Unarmoured cable + 1x M25 cable gland ② | Armoured cable M20 entries ③ | |
| | 2 x 18 W – 110-254 Vac, 50/60 Hz – 110-254 Vdc | FEB218BUSN | FEB218BUSA | |
| | 2 x 36 W – 110-254 Vac, 50/60 Hz – 110-254 Vdc | FEB236BUSN | FEB236BUSA | |
| | 2 x 58 W – 110-254 Vac, 50/60 Hz – 110-254 Vdc | FEB258BUSN | FEB258BUSA | |
| FD FD Series Cylindrical Fluorescent Luminaires (Zones 1 and 2 – 21 and 22) | | | | |
| [°]) | Ex d IIC – 2x M20 entries (cable glands and fluorescent lamps not supplied) | | Catalogue Number | |
| | 2 x 18 W – 110-254 Vac, 50/60 Hz – 110-254 Vdc | | FDB218BUM | |
| | 2 x 36 W – 110-254 Vac, 50/60 Hz – 110-254 Vdc | | FDB236BUM | |

2 x 58 W – 110-254 Vac, 50/60 Hz – 110-254 Vdc

① Emergency battery back-up version is available. Please refer to the Appleton catalogue or visit our website, www.appleton.emerson.com.
 ② Cable glands provided in luminaires with unarmoured hub entries.
 ③ Must order armoured cable glands separately. Two M20 entries are with brass earth continuity plate for armoured cable.

FDB258BUM

Plugs and Sockets

UPRD | UPRD Series 16 Amp Plugs and Sockets | ATEX/IECEx, UKEX | Zones 1 and 2 – 21 and 22

| | Ex db IIC Gb Plug/Socket: Aluminium Socket : 2 x cable glands M20, plug supplied Plug: 1 x M25 cable gland supplied | Catalogue Number | |
|--|--|------------------|-------------|
| | | Socket | Plug |
| | 2P+E – 16A – 20-25 Vac, 50/60 Hz, Purple | UPRD316RP | UPRD316PP ① |
| | 2P+E – 16A – 100-130 Vac, 50/60 Hz, Yellow | UPRD316RY | UPRD316PY ① |
| | 2P+E – 16A – 200-250 Vac, 50/60 Hz, Blue | UPRD316RB | UPRD316PB ① |
| | 3P+E – 16A – 380-415 Vac, 50/60 Hz, Red | UPRD416RR | UPRD416PR 2 |
| | 3P+N+E - 16A - 380-415 Vac, 50/60 Hz, Red | UPRD516RR | UPRD516PR 3 |

PRE | PRE Series 16 Amp Plugs and Sockets | Zones 1 and 2 - 21 and 22



| Socket : Polycarbonate / Polyester | Catalogue Number | | |
|--------------------------------------|-----------------------------|----------|--|
| | Socket | Plug | |
| 2P+E – 16A – 200-250 Vac, 50/60 Hz | PRE316RB | PRE316PB | |
| 2P+E – 16A – 200-250 Vac, 50/60 Hz | PRE316MB (mobile socket) | PRE316PB | |
| 3P+E – 16A – 380-415 Vac, 50/60 Hz | PRE416RR | PRE416PR | |
| 3P+N+E – 16A – 380-415 Vac, 50/60 Hz | PRE516RR | PRE516PR | |

PRE | PRE Series 32 Amp Plugs and Sockets | Zones 1 and 2 – 21 and 22



| Ex de IIC Socket: Polyester / Polyamide – Plug: Polyamide | Catalogue Number | | |
|--|------------------|----------|--|
| 1x M25 cable gland supplied | Socket | Plug | |
| 3P+E – 32A – 380-415 Vac, 50/60 Hz | PRE432RR | PRE432PR | |
| 3P+N+E - 32A - 380-415 Vac. 50/60 Hz | PRE532RR | PRF532PR | |

Disconnect Switches

| SWE SWE Series 16 A | Amp Control Devices ATEX, IECEx, UKEX Zones 1 and 2 – 21 a | and 22 |
|-----------------------|---|--------------------|
| | Ex db eb IIC – Polyester 2x M20 cable glands supplied | Catalogue Number |
| | 2 pole, 2x M20 entries | SWE016S201AG |
| | Changeover switch, 2x M20 entries | SWE016C101AG |
| SWD SWD Series 16 / | Amp Disconnect Switches Zones 1 and 2 – 21 and 22 Ex d IIC – Aluminium | Catalogue Number ① |
| | | |
| | 2 Pole, 2x M20 entries | SWD016S200A |
| | 3 Pole, 2x M20 entries | SWD016S300A |
| | 4 Pole, 2x M20 entries | SWD016S400A |
| | Changeover switch, 2x M20 entries | SWD016C100A |

Junction Boxes

JBEL | JBEL Polycarbonate Junction Boxes | ATEX, IECEx, UKEX (Zones 1 and 2 – 21 and 22)

| | Ex eb IIC – 4 terminals 2.5/4 mm ² – 660 V | | Catalogue Number |
|--|---|------|------------------|
| | 4 x M20 entries with cable glands | -¢- | JBEL1N4M20G |
| | 4 x M20 entries with earth brass continuity – 2x M20 plugs – armoured cable \odot | -¢- | JBEL1A4M20 |
| | Ex eb IIC - 4 terminals 6/10 mm ² - 690 V | | Catalogue Number |
| | 3x M20 entries – 3 cable glands – unarmoured cable | | JBEL2N3M20G |
| | 4x M20 entries – 4 cable glands– unarmoured cable | -\$- | JBEL2N4M20G |
| | 3x M25 entries – 3 cable glands– unarmoured cable | | JBEL2N3M25G |
| | 4x M25 entries for unarmoured cable, with 4 cable glands | -\$- | JBEL2N4M25G |
| | 4x M20 entries with earth brass continuity – 2x M20 plugs – armoured cable ${\rm \oplus}$ | -\$- | JBEL2A4M20 |
| | 4x M25 entries with earth brass continuity – 2x M25 plugs – armoured cable ${\mathbb O}$ | -ф- | JBEL2A4M25 |

JBDR | JBDR Pre-Drilled Aluminum Round Junction Boxes | (Zones 1 and 2 – 21 and 22)

| | Ex d IIC | Catalogue Number | | | | |
|------|--|------------------|---------------|-----|---------------|--|
| | | M25 | M25 entries ① | | M20 entries ① | |
| Le e | 2x entries | ¢ | JBDR25 | ¢ | JBDR20 | |
| | 3x entries | | JBDR35 | | JBDR30 | |
| | 4x entries | -¢- | JBDR45 | -¢- | JBDR40 | |
| | Pillar terminal block (4 terminals capacity 4 x 4 mm² or 2 x 6 mm²) | | TBP44 | | TBP44 | |

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Junction Boxes

JBEP | JBEP Series FRP Terminal Junction Boxes for Electrical and Power Applications | Zones 1 and 2 – 21 and 22

| | Ex eb IIC – 4 Live Mantle Clamping 2.5 mm² (4 + 1 earth terminal) Configuration : Single phase (1PE + 2L + 2N + 1PE) – Dim. ext. 85x85x61 mm | | Catalogue Number ② |
|--|---|------|--------------------|
| | 3x M20 with earth continuity device ${\rm \odot}$ | | JBEP080806AE03T |
| | 3x M20 with cable glands for unarmoured cable (diam. 6.5 to 14.5mm) | | JBEP080806NE03T |
| | $4x\text{M20}$ with earth continuity device \oplus | -ф- | JBEP080806AE04T |
| | 4x M20 with cable glands for unarmoured cable (diam. 6.5 to 14.5mm) | -\$- | JBEP080806NE04T |
| | Ex eb IIC – 4 Live Mantle Clamping 4 mm ² (4 + 1 earth terminal) Configuration: 3 Phase (1PE + 2L1 + 2L2 + 2L3 + 1PE) – Dim. ext. 120x120x91 mm | | Catalogue Number ② |
| | $3x\text{M20}$ with earth continuity device \mathbbm{O} | | JBEP121209AE03T |
| | 3x M25 with cable glands for unarmoured cable (diam 8 to 17mm) | | JBEP121209NE13T |
| | $4x\text{M20}$ with earth continuity device \mathbbm{O} | -ф- | JBEP121209AE04T |
| | 4x M25 with cable glands for unarmoured cable (diam 8 to 17mm) | -\$- | JBEP121209NE14T |

JBES | JBES Series Pre-Drilled 316L Stainless Steel Junction Boxes | Zones 1 and 2 – 21 and 22



| Ex e IIC – equipped with 2.5mm ² terminals, continuity shields and M8 external earth crossing terminal | Catalogue Number ①② |
|--|---------------------|
| JBe36 – 14 terminals (7 pairs) + 7 continuity shields 220 x 260 x 150 mm – 1x M25 + 7x M20 on the bottom | JBES2226150F5 |
| JBe36 – 24 terminals (12 pairs) + 12 continuity shields 220 x 260 x 150 mm – 1x M32 + 12x M20 on the bottom | JBES2226150F6 |
| JBe46 – 38 terminals (19 pairs) + 19 continuity shields 220 x 370 x 200 mm – 1x M32 + 19x M20 on the bottom | JBES2237200F7 |
| JBe46 – 54 terminals (27 pairs) + 27 continuity shields 220 x 370 x 200 mm – 1x M40 + 27x M20 on the bottom | JBES2237200F8 |

Control Stations

| U4 Unicode™ 2 Series Polycarbonate Control Stations ATEX, IECEx, UKEX Zones 1 and 2 – 21 and 22 | | | |
|---|--|---------------------|--|
| | Ex db eb IIC | Catalogue Number ①② | |
| | Momentary push button with green "I" or red "O" insert (NO+NC) – 2x M20 entries | U41W2A3 | |
| | Emergency stop mushroom head push-pull button (NO+NC) – 2x M20 entries | U41W2D3 | |
| | Emergency stop mushroom head with key release (NO+NC) – 2x M20 entries | U41W2C3 | |
| | Emergency stop mushroom head with collar (NO+NC) – 2xM20 entries | U41W2D21 | |
| | Key push button, key removable in both positions (NO+NC) – 2x M20 entries | U41W2E3 | |
| 10 | 2 fixed position selector switch (NO+NC) – 2x M20 entries | U41W2H3 | |
| | 3 fixed position selector switch "I-0-II" (2 NO) – $2x$ M20 entries | U41W2J1 | |
| | Green pilot light 12 to 254 Vac, 12 to 60 VDC - 2x M20 entries | U41W2PR | |
| | Red pilot light 12 to 254 Vac, 12 to 60 VDC – 2x M20 entries | U41W2PG | |
| | Green push button "I" (NO+NC) and red push button " O" (NO+NC) – 2x M20 entries | U42W2A3A3 | |
| | Green push button "I" (NO+NC) and red emergency stop mushroom head (NO+NC) – 2x M20 entries | U42W2A3D3 | |
| | Green pilot light and green push button "I" (NO+NC) – 2x M20 entries | U42W2PGA3 | |
| | Red pilot light and red push button "O" (NO+NC) – $2x$ M20 entries | U42W2PRA3 | |
| | Ammeter 48x48 mm, 1A current transformer, with 0-1-3 scale – 2x M20 entries | U42W2CA13 | |
| | Green push button "I" (NO+NC), red push button "O" (NO+NC) and red emergency stop mushroom head (NO+NC) – 2x M20 entries | U43W2A3A3D3 | |
| | Green indicator light and green push button "I" (NO+NC) and red push button "O" (NO+NC) – 2x M20 entries | U43W2PGA3A3 | |
| | Red indicator light and green push button "I" (NO+NC) and red push button "O" (NO+NC) – 2x M20 entries | U43W2PRA3A3 | |
| | Ammeter 48x48 mm, 1A current transformer, with 0-1-3 scale and 3 position selector switch with spring return "II-0" (NO+NC) – 2x M20 entries | U43W2CA13M3 | |

Note: Unicode 2 Series also exists in 316L stainless steel version. Please refer to the Appleton catalogue or visit our website, www.appleton.emerson.com.

Control Stations

| U2 Unicode 2 Series Fiberglass Reinforced Polyester Control Stations ATEX, IECEx, UKEX Zones 1 and 2 – 21 and 22 | | | |
|--|---|---------------------|--|
| | Ex db eb IIC | Catalogue Number ①② | |
| N | Momentary push button with green "I" or red "O" insert (NO+NC) – 2x M20 entries | U21W2A3 | |
| | Green momentary push button "I" (NO) – 2x M20 entries | U21W2A5 | |
| To . | Green push button "I" (NO+NC) and red push button "O" (NO+NC) – 2x M20 entries | U21W2A3A3 | |
| | Emergency stop mushroom head push-pull button (NO+NC) – 2x M20 entries | U21W2D3 | |
| | Emergency stop mushroom head with key release (NC) – 2x M20 entries | U21W2C3 | |
| | Key push button, key removable in both positions (NO+NC) – 2x M20 entries | U21W2E3 | |
| | Green pilot light and red pilot light – 2x M20 entries | U21W2PGPR | |
| | 2 fixed position selector switch (NO+NC) – 2x M20 entries | U21W2H3 | |
| | 3 fixed position selector switch "I-0-II" (2 NO) – 2x M20 entries | U21W2J1 | |
| I | Green push button "I" (NO) and red push button "O" (NC) – $2x$ M20 entries | U22W2A5A9 | |
| | Green push button "I" (NO+NC) and red push button "O" (NO+NC) – 2x M20 entries | U22W2A3A3 | |
| Ĩ | Green push button "I" (NO) and red emergency stop mushroom head (NC) – $2x$ M20 entries | U22W2A5D9 | |
| | Green push button "I" (NO+NC) and red emergency stop mushroom head (NO+NC) – 2x M20 entries | U22W2A3D3 | |
| | Green pilot light and green push button "I" (NO+NC) – 2x M20 entries | U22W2PGA3 | |
| | Red pilot light and red push button "O" (NO+NC) – 2x M20 entries | U22W2PRA3 | |
| | Green indicator light, red indicator light "I" (NO) green push button and red push button "O" (NC) – 2x M20 entries | U22W2PGPRA5A9 | |
| | Ammeter 48x48 mm, 1A current transformer, with 0-1-3 scale and 3 position selector switch with green push button "I" (NO) and red push button "O" (NC) – $2x$ M20 entries | U23W2CA13A5A9 | |
| | Green push button "I" (NO), red push button "O" (NC) and red emergency stop mushroom head (NC) – $2x$ M20 entries | U23W2A5A9D3 | |
| 3 | Green indicator light and green push button "I" (NO+NC) and red push button "O" (NO+NC) – 2x M20 entries | U23W2PGA3A3 | |
| | Red indicator light and red push button "I" (NO+NC) and green push button "O" (NO+NC) – 2x M20 entries | U23W2PRA3A3 | |

Note: Unicode 2 Series also exists in 316L stainless steel version. Please refer to the Appleton catalogue or visit our website, www.appleton.emerson.com. For additional configurations, please refer to the Appleton catalogue.
 Two entries diameter 20 mm, blanking plug, cable gland for unarmoured cables and two locknuts.

Cable glands

TSPE | TSPe Series Polyamide Cable Glands | Zones 1 and 2 – 20

| | | Catalogue Number | | |
|--|-----|------------------|---------------|--|
| | | Black RAL 9011 | Blue RAL 5015 | |
| | M16 | 16DTSPE1TAL | 16DTSPE1TA4L | |
| | M20 | 20DTSPE1TAL | 20DTSPE1TA4L | |
| | M25 | 25DTSPE1TAL | 25DTSPE1TA4L | |
| | M32 | 32DTSPE1TAL | 32DTSPE1TA4L | |
| | M40 | 40DTSPE1TAL | 40DTSPE1TA4L | |

A2F | A2F Series Nickel Plated Brass Cable Glands | ATEX, IECEx | Zones 1 and 2 - 20

| | Cable gland for unarmoured cable | Catalogue Number |
|--|----------------------------------|------------------|
| | M20S | 20SA2F5 |
| | M20 | 20A2F5 |
| | M25 | 25A2F5 |
| | M32 | 32A2F5 |
| | M40 | 40A2F5 |

| E1FX E1FX Series Nickel Plated Brass Cable Gland ATEX, IECEx Zones 1 et 2 – 22 | | | |
|--|--|------------------|--|
| | Cable gland for armoured cable (braid, tape) | Catalogue Number | |
| | M20S | 20SE1FX5 | |
| | M20 | 20E1FX5 | |
| | M25 | 25E1FX5 | |
| | M32 | 32E1FX5 | |
| | M40 | 40E1FX5 | |

| E1FU E1FU Series Triple Certified Nickel Plated Brass Cable Gland ATEX, IECEx Zones 1 and 2 – 20 | | | | |
|--|---|------------------|--|--|
| | Cable glands for armoured cable (wire, braid, tape) | Catalogue Number | | |
| | M20S | 20SE1FU5 | | |
| | M20 | 20E1FU5 | | |
| | M25 | 25E1FU5 | | |
| | M32 | 32E1FU5 | | |
| | M40 | 40E1FU5 | | |

T3 | T3 Series Nickel Plated Brass Cable Glands | ATEX, IECEx | Zones 1 and 2 – 20

| | Cable glands for armoured cable (wire, braid, tape) | Catalogue Number |
|--|---|------------------|
| | M20S | 20ST35 |
| | M20 | 20T35 |
| | M25 | 25T35 |
| | M32 | 32T35 |
| | M40 | 40T35 |

Cable Gland Accessories

| LN Locknuts in Nickel Plated Brass | | | | |
|--------------------------------------|-----|------------------|--|--|
| Ø | | Catalogue Number | | |
| | M16 | 16LN5 | | |
| | M20 | 20LN5 | | |
| | M25 | 25LN5 | | |
| | M32 | 32LN5 | | |
| | M40 | 40LN5 | | |

| 737 737 Series Nickel Plated Brass Adaptors ATEX, IECEx Zones 1 and 2 – 20 | | | | | |
|--|------|--------|------------------|--|--|
| | Male | Female | Catalogue Number | | |
| | M25 | M20 | 737DM3M25 | | |
| | M32 | M20 | 737DM4M25 | | |
| | M32 | M25 | 737DM4M35 | | |
| | M40 | M25 | 737DM5M35 | | |
| | M40 | M32 | 737DM5M45 | | |

757 Series – Nickel plated brass blanking plugs | ATEX, IECEx | Zones 1 and 2 – 20

| | | | | Catalogue Number |
|--|-----|---------|---------|------------------|
| | M20 | 757DM25 | | |
| | M25 | 757DM35 | | |
| | M32 | 757DM45 | | |
| | | M40 | 757DM55 | |

| Entry Thread Seals – Sealing (IP) Washers in Nylon | | | | |
|--|--------------------------|------------------|--|--|
| | White entry thread seals | Catalogue Number | | |
| \bigcirc | M16 | 16ETS2 | | |
| | M20 | 20ETS2 | | |
| | M25 | 25ETS2 | | |
| | M32 | 32ETS2 | | |
| | M40 | 40ETS2 | | |

Cable Gland Selection Guide

| Selection Chart – Certifications | | | | | | | |
|----------------------------------|-------------|--|-------------------|-----------------|-------|------|----------------|
| Mode of protection | Series | Material | Unarmoured cables | Armoured cables | | | Type of seal |
| | | | | Wire | Braid | Таре | Type of Seal |
| "e" | TSPe | Polyamide | Yes | | | | Neoprene seal |
| | A2F | Brass, fully nickel plated / stainless steel | Yes | | | | |
| | E1FX | Brass, fully nickel plated | | | Yes | Yes | Elastomer seal |
| "d" and "e" | E1FW | Brass, fully nickel plated | | Yes | | | |
| | E1FU | Brass, fully nickel plated | | Yes | Yes | Yes | |
| | Т3 | Brass, fully nickel plated | | Yes | Yes | Yes | |
| | TE1FU | Stainless steel | | Yes | Yes | Yes | |
| "d" and "e" | PX (PXSS2K) | Brass, fully nickel plated | Yes | | | | Compound seal |
| a and e | PX2K | Brass, fully nickel plated | | Yes | Yes | Yes | |
| "d" and "e" | PX-REX | Brass, fully nickel plated | Yes | | | | Liquid resin |
| | PX2K-REX | Brass, fully nickel plated | | Yes | Yes | Yes | |

Selection Guide

Selection of cable entry for Ex d flameproof enclosure. According to EN 60079-14 (2014) norm, chapter n° 10.6.2.

Option A

Ex d cable entry compound sealing /liquide resin Per : EN 60079-1



Option B

Ex d cable entry with sealing ring Per : EN 60079-1



With cable of 3 meter (9.84 feet) length minimum and conforms to EN 60079-14 (2014) chapter 9.3.2. a).

Other possible options as specified in EN 60079-14 (2014), chapter 10.6.2.





Engineered to Order Electrical Products



Made to Order Products

(Zones 1 and 2 - 21 and 22)



11 kV Ex e Stainless Steel Junction Box



Ex ia Instrumentation Junction Box



Ex d Panelboard with 8 Branch Circuit Breakers Coupled with Ex e Polyester Junction Box



Ex d Control Panel



Distribution Panelboard Ex de – PlexPowerTM in Glass Reinforced Polyester IIB+H₂ or IIC



Distribution Panelboard Ex de – PlexPower in Stainless Steel IIB+H $_2$ or IIC



LED — CLED Series Flameproof Luminaires

The Appleton CLED Series is a full-feature lighting solution within a corrosion-resistant flameproof housing and an increased-safety wiring compartment. It is certified for ATEX and IECEx Zones 1 and 2 - 21 and 22. This compact and lightweight LED luminaire with a small mounting footprint provide installation flexibility adaptable to different requirements and multiple light distributions including symmetrical Type V, medium (55°) and narrow (25°) patterns. It is designed to meet the most demanding task, area lighting and floodlighting requirements in standard and battery backup (180 minutes) operations. It features twelve lumen outputs, five mounting types, two replaceable lens choices and three color temperatures.

LED — Appleton Connected Luminaires, Dimmable Luminaires and Group Lighting Controls

An Appleton connected luminaire is a smart light that communicates over WirelessHART technology. This luminaire has an integrated sensor with occupancy or davlight harvesting capabilities, can report sensor state and automatically dim lumen output. It acts as a "controller" when Appleton LED lighting luminaires with dimming capabilities are wired to it through dimming cables, creating a "controlled" group.

An Appleton dimmable luminaire is a standard LED lighting luminaire with an electrical 0-10V dimming interface. This luminaire acts as a part of the "controlled" group when the dimming interface is wired to a Connected Appleton LED Luminaire.

Group Lighting Controls allow the control of multiple luminaires over a distance of 60 meters (200 feet) with an Appleton Connect LED Luminaire integrated dimming controller wired to the dimming leads (via designated terminal block terminations or wire nuts/connectors)

LED — Mercmaster[™] Connect LED Luminaires | Connected Luminaire

Certified for ATEX/IECEx Zones 2 - 21 and 22 locations, the Appleton Mercmaster Connect LED Luminaire is a full-feature WirelessHART connected lighting solution with integrated motion and illuminance sensors in a rugged, corrosion-resistant housing, offering a range of dimmable ^o lumen output options from up to 5,500 to 17,500. A standalone Mercmaster Connect LED is an excellent motion sensing luminaire that can be installed in the most critical safety spots in your facility. The most versatile options like dimmable outputs, motion sensing and daylight harvesting are available only with our Plantweb Insight™ Connected Lighting Application (optional). It provides map based commissioning of the lighting system and real-time information about lighting usage, energy consumption calculations, and maintenance priorities. Group Lighting Control (for dimming output function) for LED or conventionnal luminaires equipped with dimming terminals are also possible.

① Dimming function cannot be adjusted in standalone version. Lumen output level is set up in factory by default.

LED — HB LED Multilens Bulkhead Luminaires | 0-10 Vdc Dimming Standard

Appleton ATEX/IECEx Zone 2 HB LED Multilens Bulkhead Luminaires are reliable, lightweight, compact and ideal for wall applications. Field changeable globes, 6 kV standard surge, and a choice of lumen outputs and Correlated Color Temperatures (CCTs) make this luminaire a great option for hazardous locations with corrosive atmospheres. Also avialable in an industrial version with CE marking for harsh industrial (non hazardous) locations where corrosive atmospheres are present. These luminaires ensure uniform light distribution making them ideal for perimeter lighting.

LED — Mercmaster LED Low Profile Series Luminaires | 0-10 Vdc Dimming Standard

Appleton ATEX/IECEx Zone 2 Mercmaster LED Low Profile Luminaires are reliable, light-weight, compact and ideal for task and area lighting applications under 6 meters. Field changeable globes, 6 kV standard surge, and a choice of lumen outputs and Correlated Color Temperatures (CCTs) make this luminaire a great option for hazardous locations where corrosive atmospheres are present. Also avialable in an industrial version with CE marking for harsh industrial (non hazardous) locations where corrosive atmospheres are present. These luminaires ensure uniform light distribution without spotlight effects or dark spots and can be tailored in the field. The Emergency Battery Backup version provides 180 minutes of emergency lighting.

LED — Industrial Areamaster Generation 2 LED Luminaire | 0-10 Vdc Dimming Standard

Appleton Industrial Areamaster Generation 2 LED luminaires are the ideal for floodlighting applications to brighten open spaces, roadways, process areas and building facades. Our secondary optics deliver lumens evenly and efficiently to floodlit areas without excess glare, hotspots, overspill, light pollution or wasted energy. Industrial Areamaster Generation 2 LEDs provide greater versatility, with models from 9,000 to 38,000 lumens, two color temperatures, two lens choices and 4 beam patterns to meet your diverse floodlighting needs. They provide HID equivalent lighting that saves over 75 percent in energy costs and eliminates maintenance burdens. They are certified for use in ordinary rated locations, that require a high degree of ingress protection and ruggedness.

LED — Linmaster™ LED Series Nonmetallic Luminaires | 0-10V Dimming Capable

The Appleton Linmaster Nonmetallic LED Luminaire Series offers a range of lumen outputs and color temperatures in both standard and emergency battery backup models to address all your harsh industrial and hazardous Zones 1 and 2 - 21, and 22 location lighting requirements. Available in 5 Correlated Color Temperatures (CCTs), with light output from 2,500 to 7,000 lumens, and a wide AC and DC input voltage range, it is designed to allow easy retrofitting of linear fluorescent luminaires using a wide variety of mounting options.

Complete catalogue pages of Appleton LED Luminaires available at www.appleton.emerson.com















Products and Services



Polyester Junction Boxes

We have improved our offering of polyester instrumentation and junction boxes, the JBEP Series:

- equipment of our standardized boxes
- · generic quotation approval plans

Please consult the Sales Representative in your region for more information about the JBEP Series:

| JBEP Catalogue Number | Size |
|-----------------------|-------------|
| JBEP121209S0 | 120x120x91 |
| JBEP1717090 | 170x170x91 |
| JBEP2021100 | 200x215x95 |
| JBEP2021150 | 200x215x145 |
| JBEP2532150 | 250x320x150 |
| JBEP3250150 | 320x500x150 |
| JBEP327150 | 320x750x150 |
| JBEP5032150 | 500x320x150 |



Please refer to the Appleton catalogue or visit our website, www.appleton.emerson.com

Free Lighting Design Services

In order to choose the best LED solutions, we suggest the using DIALux™ software to design, calculate and visualize your applications lighting design.

The Appleton DIALux Plug-In can be used with the DIALux software platform or for exporting IES files for use in other programs. This plug-in is available in the Lighting Resources section at MasteringLED.com.

DIALux allows you to see what LED lighting is most suited to your needs and ATEX constraints, ranging from a simple room to a production unit including outdoor lighting.

It will highlight the advantages of LEDs in terms of reducing the number of luminaires (in the event of modernization of your installations), increasing brightness and reducing energy consumption on site.

For assistance, please send your requests to: atxledservices@emerson.com

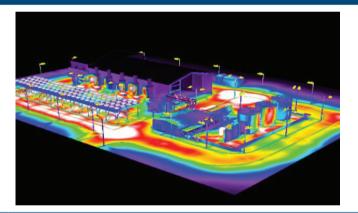
ATEX Training

The ATEX Standards are constantly evolving, we follow these changes closely in order to provide you with answers to your questions.

We offer tailor-made ISM-ATEX training for anyone who has to work in potentially explosive atmospheres, whether or not working on electrical ATEX equipment.

Depending on your needs, three training levels (levels 0, 1 and 2) are available. This training can be conducted on our premises or at your location or via a webinar session.

Please contact our authorized trainer ISM-ATEX level 3-Electric: michel.havet@emerson.com





CONCEPTION, REALISATION ET MAINTENANCE EN ATMOSPHERES EXPLOSIBLES DESIGN, INSTALLATION AND MAINTENANCE IN HAZARDOUS AREA

CERTIFICAT DE COMPETENCE /COMPETENCE CERTIFICATE INERIS N° 19CF0022

HAVET Michel

Formateur Niveau 3-Électrique Trainer, Level 3 - Electric

 Date de Validité:
 20/09/2024

 Validity date:
 2024-09-20



INERIS

General Information on ATEX Zones



Examples of gas and vapor environments ZONE 2 ZONE 1 SAFE ZONE 4 4 5 5 5 5 6 4 Example 1 | Conditions : Example 3 | Conditions : Example 2 | Conditions : \bigcirc Manual ventilation 1 Tank with extractor hood ① Closed Tank Zone 0 2 Mechanical ventilation 2 2 Zone 0 3 Zone 1 3 Zone 0 3 Zone 1 (4) Safe area (4) Zone 2 (4) Zone 2 . Open air mixing tank (5) Safe area (5) Safe area . No mechanical ventilation . Control of operations outside the work area 6 Mechanical ventilation . Products stored in the work area 7 Products stored outside the work area

Zone Classification

Zone classification is based on the presence frequency of the hazardous atmosphere:



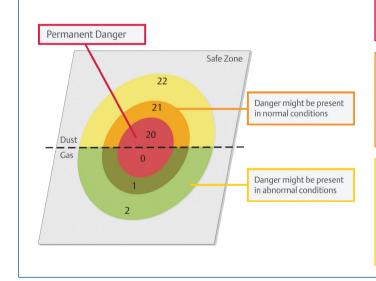
A place in which an explosive atmosphere either [consisting of a mixture with air of dangerous substances in the form of gas, vapor or mist] or [in the form of a cloud of dust in air] is present continuously or for long periods or frequently.

Zone 1 (gas) / 21 (dust)

A place in which an explosive atmosphere either [consisting of a mixture with air of dangerous substances in the form of gas, vapor or mist] or [in the form of a cloud of dust in air] is likely to occur in normal operation occasionally.

Zone 2 (gas) / 22 (dust)

A place in which an explosive atmosphere either [consisting of a mixture with air of dangerous substances in the form of gas, vapor or mist] or [in the form of a cloud of dust in air] is not likely to occur in normal operation but, if it does occur, will persist for a short period only.



General Information on ATEX Zones



Selection table – Certifications Gas and dust groups **Temperature Class** Surface Temperature Gas group Examples Marking Methane, Ethane, Propane, Butane... T1 450 °C IIA IΙΒ T2 300 °C Ethylene, Carbon Monoxide, H2S, Ethanol... IIC Acetylene, Carbon Disulfide, Hydrogen, Ethyl nitrate Т3 200 °C Τ4 135 °C Dust group Examples IIIA Combustible flyings (ex: fibers) T5 100 °C IIIB Non-conductive dust Τ6 85 °C IIIC Conductive dust Modes of protection gas (examples) Modes of protection dust (examples) Cat / EPL Symbol Normal **Protection Mode** Cat / EPL Symbol Normal **Protection Mode** EN 60079-11 Intrinsic safety ia FN 60079-11 Intrinsic safety ia 1G / Ga 1D/Da ma EN 60079-18 Encapsulation ma EN 60079-18 Encapsulation db EN 60079-1 Flameproof enclosure ta EN 60079-31 Flameproof enclosure eb EN 60079-7 ib EN 60079-11 Increased safety Intrinsic safety 2G / Gb ib EN 60079-11 Intrinsic safety 2D / Db mh EN 60079-18 Encapsulation tb EN 60079-31 mb EN 60079-18 Encapsulation Protection by enclosure pxb, pyb EN 60079-2 Pressurized enclosure pxb, pyb EN 60079-2 Pressurized enclosure ec EN 60079-7 Increased safety ic EN 60079-11 Intrinsic safety nR EN 60079-15 Restricted breathing EN 60079-18 mc Encapsulation 3G / Gc 3D / Dc mc EN 60079-18 Encapsulation tc EN 60079-31 Protection by enclosure pzc EN 60079-2 Pressurized enclosure EN 60079-2 Pressurized enclosure pzc General information on ATEX Zones Appleton[®] A.T.X.[®] Type FELED 30 FELED5CBUSNDE 80084 AMIENS FRANCE N° xxxxxxx Ex db eb mb IIC T4 Gb - 20°C ≤ Ta ≤ + 50°C Ex th IIIC T70°C Db C € 0081 🐼 II 2 GD INERIS 18 ATEX 0042X IECEx INE 18.0039X According ATEX Directive: (Ex) CE 0081 GD Ш 2 CE marking Identification Specific Marking Equipment category Equipment group Type of explosive number of the of Explosion (II = surface (2 = for Zones 1 atmosphere: Notified Body Protection industry) or 21) G = Gas D = Dust involved in the **Production Control** Phase According EN 60079-0 Standard (Explosive Atmospheres-Equipment-General Requirements) and EN 60079-1/2... standards (Modes of protection standards): a) Gas : Éх db eb mb IIC Т4 Gb This symbol indicates **Equipment Protection** Modes of protection used Gas Temperature class that the electrical subdivision Level (EPL) Ga for Zone 0 equipment corresponds Gb for Zone 1 to one or more of the Gc for Zone 2 types of protection which are the subject of specific standards b) Dust : IIIC T70°C Db Ex Surface Equipment Protection This symbol indicates Mode of protection used Dust that the electrical subdivision Temperature Level (EPL) equipment corresponds Da for Zone 20 to one or more of the Db for Zone 21 types of protection which Dc for Zone 22 are the subject of specific standards

Industrial Applications



Explosive dust (D): Zones 20, 21 and 22 ①

Industries

Food dust



Silos, flour milling, baking, agri-foods, etc.





Cereals, starch, sugar, flour, milk, chocolate, colorings, etc.



Applications

Storage, transportation (mechanical, on road vehicles), milling, crushing, filling, etc.

Plant dust



Wood, manufacture of furniture and corks. Wood silos, waste sorting, textiles, etc.







Storage, transportation, processing

Metal dust



Surface treatment, shot blasting, sandblasting, etc.

Dust from industrial processing



Processing of plastics, tires, paints, etc.



Aluminum, magnesium, ferro alloys, etc.



Processing



Plastics, powder coatings, fertilizers, rubber, elastomers, resins and synthetic adhesives, etc.



Storage, transportation, processing

22

Industrial Applications



Risks linked to gases (G): Zones 0, 1 and 2 ①

Industries

Solvent vapors (Type IIB)



Automotive, mechanical, boiler construction, plastic parts or parts with a plastic appearance



Liquid paint, varnish, bonding, stripping, etc.

Type of hazard / Presence of gas



Paint booths, processing.

Applications

Propellant gas



Processing of aerosol dispensers

Emanation and gas leakage





Filling processes



Oven proximity, control unit, processing, etc



Automotive outsourcing, earthenware, glass, high-power heating (ovens), etc.

Handling and storage of dangerous products



All-industry handling with forklift (warehouse storage)

Fossil fuels



Petrochemicals, oil exploration, production, refining and storage



H2 refueling stations, electrolyser production sites



Butane, propane, etc.



Oil, petrol, methane, etc.



Battery charging area for trucks, storage areas, etc.



Processing, storage, transportation, etc.

ATEX and IECEx certified solutions designed to support you and your operations by enabling productivity and ensuring maximum reliability.



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