

# OPTIMA-EX[GD] Series



ATEX [Ex] II 2 GD

## PLUGS



## VERSIONS



Plugs

16A-32A  
63A-125A

## PRODUCTS FOR USE IN A POTENTIALLY EXPLOSIVE ENVIRONMENT

Scame offers products suitable for installation into environments under potential risk of explosion identified as Zone 1/2 and 21/22 and that enter into the field of application for the ATEX Directive (European Directive 94/9/CE and IECEx).



PLUG LABEL  
OPTIMA-EX[GD] SERIES

|                                           |  |
|-------------------------------------------|--|
|                                           |  |
| 219.6336 Via Costa Erta 15 Parre BG ITALY |  |
| INERIS 15ATEX0017X                        |  |
| IECEx INE15.0033X                         |  |
| Ex e IIC T6 Gb                            |  |
| Ex tb IIIC T80°C Db IP66                  |  |
| Tamb. -35/+60°C                           |  |
| 3P+ ±63A-6U 380-415V~                     |  |

## REFERENCE STANDARDS

- ATEX IECEx**  
**IEC/EN 60079-0**  
 Electrical apparatus for use in the presence of combustible dust.  
*Part 0: General requirements.*
- ATEX IECEx**  
**IEC/EN 60079-1**  
 Explosive Atmospheres.  
*Part 1: equipment protection by flameproof enclosures "d"*
- ATEX IECEx**  
**IEC/EN 60079-31**  
 Electrical apparatus for use in the presence of combustible dust.  
*Part 31: Protection by enclosures 'tD'.*
- ATEX IECEx**  
**IEC/EN 60079-7**  
 Explosive Atmospheres.  
*Part 7: equipment protection by increased safety "e"*
- IEC/EN 60309-1**  
 Plugs, socket outlets and couplers for industrial purposes.  
*Part 1: general requirements.*
- IEC/EN 60309-2**  
 Plugs, socket outlets and couplers for industrial purposes.  
*Part 2: dimensional interchangeability requirements for pin and contact-tube accessories of harmonised configurations.*

## ■ BEHAVIOUR WITH CHEMICAL AND ATMOSPHERIC AGENTS

| Saline solution | Acids              |           | Bases              |           | Solvents  |           |           |           | Mineral oil | UV rays   |
|-----------------|--------------------|-----------|--------------------|-----------|-----------|-----------|-----------|-----------|-------------|-----------|
|                 | Concentrated       | Diluted   | Concentrated       | Diluted   | Hexane    | Benzol    | Acetone   | Alcohol   |             |           |
| Resistant       | Limited Resistance | Resistant | Limited Resistance | Resistant | Resistant | Resistant | Resistant | Resistant | Resistant   | Resistant |

For specific substances please contact our technical service.

## ■ TECHNICAL CHARACTERISTICS

|                                                 |                                                                       |
|-------------------------------------------------|-----------------------------------------------------------------------|
| Rated current:                                  | <b>16A-32A-63A-125A</b>                                               |
| Rated voltage:                                  | <b>50÷690V~</b>                                                       |
| Frequency:                                      | <b>50÷60Hz</b>                                                        |
| Insulating voltage:                             | <b>690V~</b>                                                          |
| ATEX Code:                                      | <b>Ex II 2 GD</b>                                                     |
| Ex Protection type:                             | <b>Ex e IIC T4, T5, T6 Gb<br/>Ex tb IIIC T80°C Db IP66</b>            |
| Ambient temperature range:                      | <b>-50°C + 60°C for plug 16/32A<br/>-35°C + 60°C for plug 63/125A</b> |
| Maximum permissible surface temperature (DUST): | <b>T80°C</b>                                                          |
| Temperature class (GAS):                        | <b>T4/T5/T6</b>                                                       |
| Protection degree:                              | <b>IP66</b>                                                           |
| Impact Resistance:                              | <b>7J</b>                                                             |
| Plugs material:                                 | <b>PA6 - Dissipative</b>                                              |
| Plugs colour:                                   | <b>Black RAL9011</b>                                                  |

## ■ ATEX IECEX CERTIFICATE

ATEX 16A-32A-63A-125A: **INERIS 15ATEX0017X**

IECEX 16A-32A-63A-125A: **IECEX INE 15.0033X**

## ■ ELECTRICAL FEATURES OPTIMA-EX[GD] SERIES

| Rated Current | Maximun Current |         |         | Max. Cable Entry Temperature when Ta +60°C |
|---------------|-----------------|---------|---------|--------------------------------------------|
|               | Ta 40°C         | Ta 50°C | Ta 60°C |                                            |
| <b>16A</b>    | 16A             | 16A     | 16A     | <b>80°C (*)</b>                            |
| <b>32A</b>    | 32A             | 32A     | 32A     | <b>85°C (*)</b>                            |
| <b>63A</b>    | 63A             | 63A     | 63A     | <b>90°C (*)</b>                            |
| <b>125A</b>   | 100A            | 112A    | 125A    | -                                          |

(\*) WARNING: the cable entry can be reach high temperature; suitable cable can be used.



# OPTIMA-EX[GD] Series



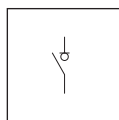
## TECHNICAL FEATURES

**1**  
**ATEX [Ex II 2 GD]**  
**2**  
**3**

| OPTIMA-EX[GD] SERIES                                                            | Unit               |        | Value     |           |           |            |
|---------------------------------------------------------------------------------|--------------------|--------|-----------|-----------|-----------|------------|
| Rated Current                                                                   |                    |        | 16A       | 32A       | 63A       | 125A       |
| Code                                                                            |                    |        | 219.16... | 219.32... | 219.63... | 219.125... |
| Suitable Size cables<br>Ground-Terminals                                        | (mm <sup>2</sup> ) |        | 2,5       | 6         | 10        | 25         |
| Power Supply Terminals - Tightening-Torque                                      | (Nm)               |        | 1         | 1,5       | 2         | 4          |
| Cable size accepted by Cable-Clamp<br>(eg.H07RN-F)<br>Do not use armoured cable | (mm)               | 2P+E   | 14        | 16        | 21        | 30         |
|                                                                                 |                    | 3P+E   |           |           |           |            |
|                                                                                 |                    | 3P+N+E |           |           |           |            |
| Cable Gland/Cable-Clamp<br>Tightening-Torque                                    | (Nm)               | 2P+E   | 5,6       | 10        | 10        | 25         |
|                                                                                 |                    | 3P+E   |           |           |           |            |
|                                                                                 |                    | 3P+N+E |           |           |           |            |
| Cable-Gland/Cable-Clamp (Screw) - Tightening-Torque                             | (Nm)               |        | 0.8       | 0.8       | 0.8       | 0.8        |
| Handle Screws – Tightening-Torque                                               | (Nm)               |        | 1         | 1         | 1,2       | 1,2        |

| Ambient | Gas    |        |        | Dust    |         |         |
|---------|--------|--------|--------|---------|---------|---------|
| Zone    | 0 - Ga | 1 - Gb | 2 - Gc | 20 - Da | 21 - Db | 22 - Dc |

## PLUGS IP66



| Poles    | Hz       | Volt     | Colour         |       | h.        | 16A                    | 32A                    | 63A                   | 125A                 |
|----------|----------|----------|----------------|-------|-----------|------------------------|------------------------|-----------------------|----------------------|
|          |          |          | 16A-32A<br>63A | 125A  |           | cable gland<br>□ 10/40 | cable gland<br>□ 10/40 | cable gland<br>□ 6/24 | cable gland<br>□ 1/8 |
| 2P+E     | 50/60    | 100-130  | Yellow         | -     | 4         | 219.1630               | 219.3230               | -                     | -                    |
|          | 50/60    | 200-250  | Blue           | -     | 6         | 219.1633               | 219.3233               | -                     | -                    |
|          | 50/60    | 380-415  | Red            | -     | 9         | 219.1638               | 219.3238               | -                     | -                    |
|          | 50/60    | 480-500  | Red            | -     | 7         | 219.16336              | 219.32336              | -                     | -                    |
|          | 300÷500  | 50÷500   | Red            | -     | 2         | 219.16332              | 219.32332              | -                     | -                    |
|          | d.c.     | 50÷250   | Red            | -     | 3         | 219.16334              | 219.32334              | -                     | -                    |
|          | d.c.     | >250÷500 | Red            | -     | 8         | 219.16338              | 219.32338              | -                     | -                    |
| 3P+E     | 50/60    | 100-130  | Yellow         | Black | 4         | 219.1631               | 219.3231               | 219.6331              | 219.12531            |
|          | 50/60    | 200-250  | Blue           | Black | 9         | 219.1634               | 219.3234               | 219.6334              | 219.12534            |
|          | 50/60    | 380-415  | Red            | Black | 6         | 219.1636               | 219.3236               | 219.6336              | 219.12536            |
|          | 60       | 440-460  | Red            | Black | 11        | 219.16365              | 219.32365              | 219.63365             | 219.125365           |
|          | 50/60    | 480-500  | Red            | Black | 7         | 219.16366              | 219.32366              | 219.63366             | 219.125366           |
|          | 50/60    | 600-690  | Red            | Black | 5         | 219.16367              | 219.32367              | 219.63367             | 219.125367           |
|          | 50/60    | 380/440  | Red            | Black | 3         | 219.16364              | 219.32364              | 219.63364             | 219.125364           |
|          | 100÷300  | 50÷690   | Red            | Black | 10        | 219.16361              | 219.32361              | 219.63361             | 219.125361           |
|          | >300÷500 | 50÷690   | Red            | Black | 2         | 219.16362              | 219.32362              | 219.63362             | 219.125362           |
| 3P+N+E   | 50/60    | 100-130  | Yellow         | Black | 4         | 219.1632               | 219.3232               | 219.6332              | 219.12532            |
|          | 50/60    | 208-250  | Blue           | Black | 9         | 219.1635               | 219.3235               | 219.6335              | 219.12535            |
|          | 50/60    | 346-415  | Red            | Black | 6         | 219.1637               | 219.3237               | 219.6337              | 219.12537            |
|          | 50/60    | 480-500  | Red            | Black | 7         | 219.16376              | 219.32376              | 219.63376             | 219.125376           |
|          | 50/60    | 600-690  | Red            | Black | 5         | 219.16377              | 219.32377              | 219.63377             | 219.125377           |
|          | 60       | 440-460  | Red            | Black | 11        | 219.16375              | 219.32375              | 219.63375             | 219.125375           |
|          | 50/60    | 380/440  | Red            | Black | 3         | 219.16374              | 219.32374              | 219.63374             | 219.125374           |
| >300÷500 | 50÷690   | Red      | Black          | 2     | 219.16372 | 219.32372              | 219.63372              | 219.125372            |                      |

□ Package/Bulk Pack.

## PLUGS COVER

|  |                       |        |                                 |        |
|--|-----------------------|--------|---------------------------------|--------|
|  | <b>Description</b>    | □      | <b>Description</b>              | □      |
|  | 2P+E                  | 10/100 | 32A-30A 3P+N+E                  | 10/100 |
|  | 16A-20A 3P+E          | 10/100 | 63A-60A 2P+E, 3P+E and 3P+N+E   | 10/100 |
|  | 3P+N+E                | 10/100 | 125A-100A 2P+E, 3P+E and 3P+N+E | 10/100 |
|  | 32A-30A 2P+E and 3P+E | 10/100 |                                 |        |