TOUGH MATE
FIRE MATE
For Heavy Duty Commercial and Industrial Environments
www.ehawke.com
Connecting you through innovation

Experienced

With over 60 years experience protecting people and assets in the world’s most demanding environments, Hawke is the obvious choice for reliability, quality and safety.

Worldwide

Our global network of distributors can support you wherever you are.

Quality-Driven

All Hawke products are designed to not only comply with ISO 9001 standards but to exceed all the latest standards. Rigorous in-house and third party testing ensures that all our products exceed expectations.

Complete Solution

With an extensive range of Cable Glands, Enclosures, Connectors, Accessories, Control Stations and more Hawke International can provide you with a complete solution, no matter what your project is.
Safety, when you need it most

When you need to get people out, you need a system that can take the pressure. The Hawke ToughMate and FireMate range are designed specifically to provide unparalleled strength in evacuation and rescue situations.

Tested to the latest industrial and fire standards (BS EN 61984, voltage directive LVD 2014/35/EU, BSEN50200:2006 and BS8434-2:2003 + A2 2009) the range will maintain its structural integrity – in the world’s most severe environments.

The ranges are ideal for underground and overground rail networks, marine safety and commercial and public building applications. Wherever safety is the highest priority, choose FireMate and ToughMate.
Built for the Harshest Environments

Harsh Environments demand unparalleled strength. That’s why we created the Hawke ToughMate range. Tested to the latest industrial standards (BS EN 61984 and LVD 2014/35/EU), the range has been developed to maintain its structural integrity in the world’s most severe environments. Ideal for underground and overground rail networks and commercial and public building applications the ToughMate is necessary wherever safety is imperative.

The Range

The ToughMate range of Connectors, Enclosures and Cable Glands provides a complete solution for use in emergency lighting circuits, fire alarms, voice alarms, shutdown systems and fire detection.

The ToughMate Connector

Designed for strength and easy installation, the ToughMate connector is ideal for use in rail, commercial and public applications. Its innovative fuse pin design gives circuit protection without the need for Enclosures and the custom peg design ensures the correct mating locations, every time.

The ToughMate EJB Enclosure

The EJB just got tougher. The Zinc Plated Mild Steel ToughMate Enclosure range combines all the incredible strength and corrosion resistance of our best-selling EJB range with unparalleled industrial strength. For simple installation and superior strength the TM EJB is the ideal choice.

The ToughMate Cable Gland Range

The ToughMate range combines the Hawke’s market-leading Cable Gland technology with rigorous in-house third party industrial testing to ensure exceptional performance, even in the most severe conditions. Ideal for heavy industrial or critical safety environments which are exposed to dust or extreme weather conditions the ToughMate Cable Gland range combines easy assembly with exceptional strength to increase productivity and give you peace of mind when you need it most.
The ToughMate connector has been developed to be used on underground and overground rail networks, commercial and public buildings where equipment needs to withstand the harshest of environments.

Tested to the latest Industrial BS EN 61984 and LVD 2014/35/ EU our connector will maintain its electrical and structural integrity during the toughest conditions. The product is designed to be used in emergency lighting circuits; fire alarms; voice alarms; shutdown systems and fire detection.

### Technical Data

- **Construction and Test Standards:** BS EN 61984, GPSD (2001/95/EC)
- **Ingress Protection:** IP66
- **Material:** Nickel Plated Brass or Stainless Steel 316
- **Operating Temperature:** Range: -25°C to +70°C
- **Clamping Arrangement:** Single compression seal
- **Earth:** Electrical continuity using earth pin and body connection
- **Cable Type:** Unarmoured cable
- **Number of Cores:** 4 + Earth Dal ready
- **Core Size:** Up to 6mm²
- **Current range:** 5, 10 & 15 Amps with Fuse, 16 Amps without
- **Voltage range:** 250 V
- **Assembly Instructions:** AI 504
- **Max No. of make & break operations (EN61984): on and off load** ≥500

### Ordering Options

- **Manufacture**
  - Hawke
  - TM
- **Type**
  - ToughMate
- **Material**
  - Nickel Plated Brass
  - Stainless Steel

- **Connector Style**
  - Connector Plug: CP
  - Connector Receptacle: CR
  - Bulkhead Receptacle: BR
  - Besa Box Receptacle: BB

- **FUSE pin**
  - 3 Amp: F3
  - 5 Amp: F5
  - 10 Amp: F10
  - 15 Amp: F15
  - Not Required or N/A for receptacle: X

*For best practice please ensure that the socket side is energised only*

### Sample Order Code

Manufacture/Type/Material etc: H/TM/S/CP/F5 = Hawke, ToughMate, Stainless Steel, Connector Plug, with 5Amp Fuse.
ToughMate Features

1. Unique fuse pin design available to give circuit protection without the need for enclosures.

2. Quick Connect via a 4 start thread Earth and Key location Screw

3. Custom peg design to ensure correct mating locations every time.

Besa Box Receptacle to Connector Plug
For Besa Box Mounting

Bulkhead Receptacle to Connector Plug
For Enclosure/Equipment Mounting

Connector Receptacle to Connector Plug
For Inline Connections

Connector plugs and connector receptacles accept a cable OD of 10mm to 14mm. For any cable OD outside of these sizes, please contact Hawke Sales for more details. All bulkhead receptacles are supplied with an M40 entry.
ToughMate enclosures have been developed to be used on underground and over ground rail networks, commercial and public buildings, where equipment needs to withstand the toughest of environments.

### Technical Data

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingress Protection</td>
<td>IP66 to IEC/EN 60529</td>
</tr>
<tr>
<td>Material</td>
<td>Zinc Plated Mild Steel</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>Range: -60°C to +80°C</td>
</tr>
<tr>
<td>Assembly Instructions</td>
<td>AI 298</td>
</tr>
</tbody>
</table>

Ordering information - please state the following:

**Box size, Terminal quantity/size, Gland entry quantity, Size/position**

For any further help with enclosure configuration please contact Hawke International.
A robust and simple design for applications using SWA or AWA cable in a heavy industrial environment which is exposed to dust or extreme weather conditions. All cable glands can be supplied with a shroud, lock nut, serrated washer and an earth tag.

### Technical Data

<table>
<thead>
<tr>
<th>Construction and Test Standards</th>
<th>BS EN 62444:2013 BS6121: Part 1 type CW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingress Protection</td>
<td>IP66 IEC/EN 60529</td>
</tr>
<tr>
<td>Material</td>
<td>Brass (standard), Nickel Plated Brass, 316L Stainless Steel with Neoprene Seal</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>Range: -60°C to +100°C</td>
</tr>
<tr>
<td>Clamping Arrangement</td>
<td>Two part armour clamp, single compression seal</td>
</tr>
<tr>
<td>Earth</td>
<td>Electrical continuity using the armour wire termination (SWA, AWA)</td>
</tr>
<tr>
<td>Cable Type HICW</td>
<td>Single Wire Armour SWA and AWA</td>
</tr>
<tr>
<td>Cable Type H1CX</td>
<td>Braid Wire Armour, Pliable Wire Armour (PWA), Steel Tape Armour (STA)</td>
</tr>
<tr>
<td>Kit Information</td>
<td>Stand kit also available with a low smoke option. Use STD for Standard kit or LSF for low smoke</td>
</tr>
<tr>
<td>Assembly Instructions</td>
<td>AI 506</td>
</tr>
</tbody>
</table>

### Features

- Simple robust 4 piece single compression cable gland
- Simple mechanical clamping arrangement for all SWA and AWA cable
- Ease of assembly
- High quality materials with exceptional anti-corrosion properties
- UV stable seal
- Tested to the latest industrial standards
- Excellent sealing range
- EMC tested
- All hexagon parts are the same size
- Provides cable retention seal onto the cables

**Note:** Displacement or Compression seals do not prevent cold flow. An IP seal required to maintain IP66.

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### Cable Gland Selection Table

<table>
<thead>
<tr>
<th>Size Ref.</th>
<th>Entry Thread Size 'T'</th>
<th>Metric</th>
<th>NPT® Standard or Option</th>
<th>Length of Thread (mm)</th>
<th>Inner Sheath 'A'</th>
<th>Outer Sheath 'B'</th>
<th>Armour 'C'</th>
<th>'G'</th>
<th>Hexagon Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Os</strong></td>
<td>M20</td>
<td>¾&quot;</td>
<td></td>
<td>10</td>
<td>8.0</td>
<td>6.5</td>
<td>16.0</td>
<td>0.8</td>
<td>1.25</td>
</tr>
<tr>
<td><strong>O</strong></td>
<td>M20</td>
<td>½&quot;</td>
<td></td>
<td>10</td>
<td>11.9</td>
<td>6.5</td>
<td>16.0</td>
<td>0.8</td>
<td>1.25</td>
</tr>
<tr>
<td><strong>A</strong></td>
<td>M20</td>
<td>¼&quot; or ½&quot;</td>
<td></td>
<td>10</td>
<td>14.3</td>
<td>11.5</td>
<td>20.9</td>
<td>0.8</td>
<td>1.25</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>M25</td>
<td>1&quot; or ¾&quot;</td>
<td></td>
<td>10</td>
<td>20.2</td>
<td>17.0</td>
<td>27.2</td>
<td>1.25</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>M32</td>
<td>1¼&quot; or 1&quot;</td>
<td></td>
<td>10</td>
<td>26.5</td>
<td>23.5</td>
<td>33.6</td>
<td>1.6</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>C2</strong></td>
<td>M40</td>
<td>1½&quot; or 1⅛&quot;</td>
<td></td>
<td>15</td>
<td>32.5</td>
<td>31.0</td>
<td>43.0</td>
<td>1.6</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>M50</td>
<td>2&quot; or 1½&quot;</td>
<td></td>
<td>15</td>
<td>44.4/42.3¹</td>
<td>36.0</td>
<td>52.6</td>
<td>2.0</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>M63</td>
<td>2½&quot; or 2&quot;</td>
<td></td>
<td>15</td>
<td>56.3/54.3¹</td>
<td>52.0</td>
<td>65.3</td>
<td>2.0</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>M75</td>
<td>3&quot; or 2½&quot;</td>
<td></td>
<td>15</td>
<td>68.2/65.3¹</td>
<td>64.0</td>
<td>78.0</td>
<td>2.0</td>
<td>2.5</td>
</tr>
</tbody>
</table>

1 Smaller value is applicable when selecting reduced NPT entry option 2 Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable inner sheath diameter is 10.9mm

### Technical Data

- **Construction and Test Standards**: BS EN 62444:2013, BS6121: Part 1 type CW
- **Ingress Protection**: IP66 IEC/EN 60529
- **Material**: Brass (standard), Nickel Plated Brass, 316L Stainless Steel with Neoprene Seal
- **Operating Temperature**: Range: -60°C to +100°C
- **Clamping Arrangement**: Two part armour clamp, single compression seal
- **Earth**: Electrical continuity using the armour wire termination (SWA, AWA)
- **Cable Type HICW**: Single Wire Armour SWA and AWA
- **Cable Type H1CX**: Braid Wire Armour, Pliable Wire Armour (PWA), Steel Tape Armour (STA)
- **Kit Information**: Stand kit also available with a low smoke option. Use STD for Standard kit or LSF for low smoke
- **Assembly Instructions**: AI 506

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Note: Displacement or Compression seals do not prevent cold flow. An IP seal required to maintain IP66.
A robust and simple dual compression cable gland for applications using SWA or AWA cable in a heavy industrial environment which is exposed to dust or extreme weather conditions. All cable glands can be supplied with a shroud, lock nut, serrated washer and an earth tag.

### Technical Data

- **Construction and Test Standards**: BS EN 62444-2013, BS6121: Part 1 type E1W
- **Ingress Protection**: IP66 IEC/EN 60529
- **Material**: Brass (standard), Nickel Plated Brass, 316L Stainless Steel with Neoprene Seal
- **Operating Temperature**: Range: -60°C to +100°C
- **Clamping Arrangement**: Two part armour clamp, dual compression seal inner and outer sheath
- **Earth**: Electrical continuity using the armour wire termination (SWA, AWA)
- **Cable Type**: Single Wire Armour SWA and AWA
- **Kit Information**: Stand kit also available with a low smoke option. Use STD for Standard kit or LSF for low smoke
- **Assembly Instructions**: AI 510

**Note**: Displacement or Compression seals do not prevent cold flow. IP seal required to maintain IP66.

### Cable Gland Selection Table

<table>
<thead>
<tr>
<th>Size Ref.</th>
<th>Inner Sheath A'</th>
<th>Outer Sheath B'</th>
<th>Standard Steel Wire 'W'</th>
<th>Hexagon Dims.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Os M20⁸</td>
<td>½”</td>
<td>10</td>
<td>3.2</td>
<td>6.5</td>
</tr>
<tr>
<td>O M20⁹</td>
<td>⅜”</td>
<td>10</td>
<td>6.5</td>
<td>6.5</td>
</tr>
<tr>
<td>A M20</td>
<td>⅜” or ½”</td>
<td>10</td>
<td>13.5</td>
<td>11.5</td>
</tr>
<tr>
<td>B M25</td>
<td>⅛” or ⅛”</td>
<td>10</td>
<td>19.5</td>
<td>17.0</td>
</tr>
<tr>
<td>C M32</td>
<td>⅜” or 1”</td>
<td>10</td>
<td>25.0</td>
<td>22.0</td>
</tr>
<tr>
<td>C2 M40</td>
<td>⅜” or 1¼”</td>
<td>15</td>
<td>31.5</td>
<td>34.8</td>
</tr>
<tr>
<td>D M50</td>
<td>2” or 1½”</td>
<td>15</td>
<td>42.5</td>
<td>49.5</td>
</tr>
<tr>
<td>E M63</td>
<td>2½” or 2”</td>
<td>15</td>
<td>54.5</td>
<td>58.3</td>
</tr>
<tr>
<td>F M75</td>
<td>3” or 2½”</td>
<td>15</td>
<td>68.2</td>
<td>63.5</td>
</tr>
</tbody>
</table>

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**Features**

- Simple robust 5 piece dual compression cable gland
- Simple mechanical clamping arrangement for all SWA and AWA cable
- Ease of assembly
- High quality materials with exceptional anti corrosion properties
- Tested to the latest industrial standards
- Excellent sealing range
- EMC tested
- All hexagon parts are the same size
- Provides cable retention seal onto the cables Outer and Inner Sheath
- Low smoke and fume, zero halogen seals and shroud available

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Os': Smaller value is applicable when selecting reduced NPT entry option. Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable inner sheath diameter is 10.9mm.
A robust and simple design for applications using non armoured cable in a heavy industrial environment which is exposed to dust or extreme weather conditions. All cable glands can be supplied with a shroud, lock nut, serrated washer and an earth tag.

### Cable Gland Selection Table

<table>
<thead>
<tr>
<th>Size Ref.</th>
<th>Metric</th>
<th>Entry Thread Size ‘T’</th>
<th>Length of Thread (mm)</th>
<th>Outer Sheath ‘A’</th>
<th>‘G’</th>
<th>Hexagon Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Standard Seal</td>
<td></td>
<td>Across Flats</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Min</td>
<td>Max</td>
<td>Across Corners</td>
</tr>
<tr>
<td>2K</td>
<td>M16</td>
<td>10</td>
<td>3.2</td>
<td>8.0</td>
<td></td>
<td>23.5</td>
</tr>
<tr>
<td>O</td>
<td>M20</td>
<td>10</td>
<td>3.2</td>
<td>8.0</td>
<td></td>
<td>23.5</td>
</tr>
<tr>
<td>C2</td>
<td>M40</td>
<td>15</td>
<td>25.0</td>
<td>32.5</td>
<td></td>
<td>50.0</td>
</tr>
<tr>
<td>D</td>
<td>M50</td>
<td>15</td>
<td>31.5</td>
<td>44.4</td>
<td></td>
<td>60.0</td>
</tr>
<tr>
<td>E</td>
<td>M63</td>
<td>15</td>
<td>42.5</td>
<td>56.3</td>
<td></td>
<td>80.0</td>
</tr>
<tr>
<td>F</td>
<td>M75</td>
<td>15</td>
<td>54.5</td>
<td>68.2</td>
<td></td>
<td>95.0</td>
</tr>
</tbody>
</table>

All dimensions in millimetres.

‘T’ - metric entry threads are 1.5mm pitch as standard.

Sizes Os and O are available with an M16 thread size.

For O size with M16 thread, the maximum cable outer sheath diameter is 10.9mm.

### Technical Data

- **Construction and Test Standards**: BS EN 62444:2013, BS6121: Part 1 type A2
- **Ingress Protection**: IP66, IEC/EN 60529
- **Material**: Brass (standard), Nickel Plated Brass, 316L Stainless Steel with Neoprene Seal
- **Operating Temperature**: Range: -60°C to +100°C
- **Clamping Arrangement**: Single compression seal
- **Cable Type**: Non armoured
- **Kit Information**: Stand kit also available with a low smoke option. Use STD for Standard kit or LSF for low smoke
- **Assembly Instructions**: AJ 508

### Features

- Provides a cable retention seal onto the cables outer sheath
- Simple robust single compression cable gland
- Ease of assembly
- High quality materials with exceptional anti corrosion properties
- UV stable seal
- Tested to the latest industrial standards
- Excellent sealing range
- Provides cable retention seal onto the cables Outer Sheath
- Low smoke and fume, zero halogen seals and shroud available

Note: Displacement or Compression seals do not prevent cold flow. IP seal required to maintain IP66.
Fight Fire With FireMate

When you need to get people out safely, you need a system that can take the heat. The FireMate has been created to offer a complete connection and termination solution that will maintain its structural integrity, even in the harshest fire conditions. Tested to the latest fire standards including: BSEN50200:2006, BS8434-2:2003 + A2 2009, the range is ideal for overground and underground rail networks, commercial and public buildings.

The Range

The FireMate range of fireproof Connectors, Enclosures and Cable Glands provides a complete solution for use in escape route safety equipment, emergency lighting circuits, fire alarms, voice alarms, shutdown systems and fire detection. Wherever safety is imperative, choose FireMate.

The FireMate Connector

The original FireMate product has been developed with the rail industry to provide unparalleled strength in evacuation and rescue situations. Its unique fireproof rear intrumescnt seal and high temperature pin and socket insert, ensure that it will maintain its structural integrity under the most severe conditions. Whether for underground or overground rail, marine safety or commercial and public building – the FireMate is necessary wherever safety is critical.

The FireMate EJB Enclosure

Our toughest Enclosure range just got tougher. The Zinc Plated Mild Steel FireMate Enclosure range combines all the incredible strength and corrosion resistance of our best-selling EJB range with incredible fire-proof technology. For simple installation and superior strength the FM EJB is the ideal choice.

The FireMate Cable Gland Range

The FireMate range combines the Hawke's market-leading Cable Gland technology with rigorous in-house third party fire testing to ensure exceptional performance, even in the most severe conditions. Ideal for heavy industrial or critical safety environments which are exposed to harsh chemical, dust or extreme weather conditions the FireMate Gland range combines easy assembly with unparalleled strength to increase productivity and give you peace of mind when you need it most.
The FireMate safety critical connector has been developed to be used on underground and overground rail networks, commercial and public buildings where it is critical for equipment to work during an evacuation and rescue situation.

Tested to the latest fire standards BS EN50200:2006 and BS8434-2:2003 + A2 2009 our connector will maintain its electrical and structural integrity during the harshest of fire conditions. The product is designed to be used in escape route safety equipment; emergency lighting circuits; fire alarms; voice alarms; shutdown systems; fire detection.

Technical Data

| Ingress Protection: | IP66 (Pending) |
| Material: | Nickel Plated Brass or Stainless Steel 316 |
| Operating Temperature: | Range: -25°C to +70°C |
| Clamping Arrangement: | Single compression seal |
| Earth: | Electrical continuity using earth pin and body connection |
| Cable Type: | Unarmoured fire rated cable |
| Number of Cores: | 4 + Earth. Dali ready |
| Core Size: | Up to 6mm² |
| Current range: | 16 Amps |
| Voltage range: | 250V |
| Assembly Instructions: | AI 503 |
| Max No. of make & break operations (EN61984): on and off load | ≥500 |

Fire Test

| In accordance with BS EN50200:2006 (Resistance to fire with mechanical shock) | 120mins at 830 (+40-0)°C with mechanical shock and a rated voltage of 240v rms. |
| Fire test: In accordance with BS 8434-2:2003 +A2 2009 (Resistance to fire with mechanical shock and water spray) | 120mins at 930 (+40-0)°C with mechanical shock and a rated voltage of 240v rms. (60 mins fire and shock and 60 mins fire, shock and water) |

Ordering Options

| Manufacture | Hawke |
| Type | FireMate |
| Material | Nickel Plated Brass, Stainless Steel |
| Connector Style | Connector Plug, Connector Receptacle, Bulkhead Receptacle, Befa Box Receptacle |
| FUSE pin | 3 Amp, 5 Amp, 10 Amp, 15 Amp |

Fuse pins are used as part of the standard wiring operation and will not meet the increased fire rating of this connector.

Sample Order Code

| Manufacture/Type/Material etc | H/FM/S/CP = Hawke, Firemate, Stainless Steel, Connector Plug. |
Besa Box Receptacle to Connector Plug
For Besa Box Mounting

Bulkhead Receptacle to Connector Plug
For Enclosure/Equipment Mounting

Connector Receptacle to Connector Plug
For Inline Connections

Connector plugs and connector receptacles accept a cable OD of 11mm to 14.3mm. For any cable OD outside of these sizes, please contact Hawke Sales for more details. All bulkhead receptacles are supplied with an M40 entry.
FireMate safety critical enclosures have been developed to be used on underground and over ground rail networks, and commercial and public buildings, where it is critical for equipment to work during an evacuation and rescue situation.

Tested to the latest fire standards BS EN50200:2006 and BS8434-2:2003 + A2:2009 our enclosure will maintain its electrical and structural integrity during the harshest of fire conditions. The product is designed to be used in escape route safety equipment: emergency lighting circuits; fire alarms; voice alarms; shutdown systems; fire detection.

**Maximum Quantity of Entries Per Face**

<table>
<thead>
<tr>
<th>Thread Size</th>
<th>M16</th>
<th>M20</th>
<th>M25</th>
<th>M32</th>
<th>M40</th>
<th>M50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box Type</td>
<td>FM</td>
<td>FM</td>
<td>FM</td>
<td>FM</td>
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<td>FM</td>
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<tr>
<td>FM EJB1</td>
<td>6</td>
<td>10</td>
<td>6</td>
<td>8</td>
<td>3</td>
<td>2</td>
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<td>FM EJB2</td>
<td>3</td>
<td>10</td>
<td>4</td>
<td>6</td>
<td>2</td>
<td>2</td>
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</table>

**Terminal Capacity**

<table>
<thead>
<tr>
<th>Terminal Type</th>
<th>Conductor Size (mm2)</th>
<th>Max. Volts</th>
<th>Max. Physical Terminal Content</th>
<th>Terminal Qty</th>
<th>Amps</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAKK 4</td>
<td>0.5</td>
<td>6</td>
<td>275</td>
<td>5</td>
<td>9</td>
</tr>
</tbody>
</table>

**Fire Test**

**In accordance with BS EN50200:2006**  
(Resistance to fire with mechanical shock)  
120mins at 830 (+40-0)°C with mechanical shock and a rated voltage of 240v rms.

**Fire test: In accordance with BS 8434-2:2003 +A2 2009**  
(Resistance to fire with mechanical shock and water spray)  
120mins at 930 (+40-0)°C with mechanical shock and a rated voltage of 240v rms.  
(60 mins fire and shock and 60 mins fire, shock and water)

**Features**

**Technical Data**

| Ingress Protection              | IP66 to IEC/EN 60529 |
| Material                       | Zinc Plated Mild Steel |
| Operating Temperature          | Range: -60°C to +80°C |
| Assembly Instructions          | AI 297 |

Ordering information - please state the following:

Box size, Terminal quantity/size, Gland entry quantity, Size/position

For any further help with enclosure configuration please contact Hawke International
A fire resistant, robust and simple design for applications using SWA or AWA cable in a heavy industrial, critical safety environment which is exposed to dust or extreme weather conditions. All cable glands can be supplied with a shroud, lock nut, serrated washer and an earth tag.

### Fire Test

**In accordance with BS EN50200:2006**
(Resistance to fire with mechanical shock)

120mins at 830 (+40-0)°C with mechanical shock and a rated voltage of 240v rms.

**Fire test: In accordance with BS 8434-2:2003 +A2 2009**
(Resistance to fire with mechanical shock and water spray)

120mins at 930 (+40-0)°C with mechanical shock and a rated voltage of 240v rms.
(60 mins fire and shock and 60 mins fire, shock and water)

### Technical Data

| Construction and Test Standards | BS EN 62444:2013  
BS6121: Part 1 type CW |
| Ingress Protection | IP66 IEC/EN 60529 |
| Material | Nickel Plated Brass with Intumescent Rubber Seal |
| Operating Temperature | Range: -20°C to +70°C |
| Clamping Arrangement | Two part armour clamp, single compression seal |
| Earth | Electrical continuity using the armour wire termination (SWA, AWA) |
| Cable Type HICW | Single Wire Armour SWA and AWA |
| Cable Type H1CX | Braid Wire Armour, Pliable Wire Armour (PWA), Steel Tape Armour (STA) |
| Kit Information | Intumescent sealing material used for FireMate versions |
| Assembly Instructions | AI 505 |

### Features

- Simple robust 4 piece single compression cable gland
- Simple mechanical clamping arrangement for all SWA and AWA cable
- Ease of assembly
- High quality materials with exceptional anti corrosion properties
- UV stable seal
- Tested to the latest industrial standards
- Excellent sealing range
- EMC tested
- All hexagon parts are the same size
- Provides cable retention seal onto the cables

### Cable Gland Selection Table

<table>
<thead>
<tr>
<th>Size Ref</th>
<th>Entry Thread Size ‘T’</th>
<th>Inner Sheath ‘A’</th>
<th>Outer Sheath ‘B’</th>
<th>Armour ‘C’</th>
<th>‘G’</th>
<th>Hexagon Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric</td>
<td>NPT* Standard or Option</td>
<td>Length of Thread (mm)</td>
<td>Min</td>
<td>Max</td>
<td>Across Flats</td>
<td>Across Corners</td>
</tr>
<tr>
<td>Os M20†</td>
<td>½”</td>
<td>10</td>
<td>8.0</td>
<td>6.5</td>
<td>16.0</td>
<td>0.8/1.25</td>
</tr>
<tr>
<td>O M20†</td>
<td>½”</td>
<td>10</td>
<td>11.9</td>
<td>6.5</td>
<td>16.0</td>
<td>0.8/1.25</td>
</tr>
<tr>
<td>A M20</td>
<td>¾” or ½”</td>
<td>10</td>
<td>14.3</td>
<td>11.5</td>
<td>20.9</td>
<td>0.8/1.25</td>
</tr>
<tr>
<td>B M25</td>
<td>1” or ¾”</td>
<td>10</td>
<td>20.2</td>
<td>17.0</td>
<td>27.2</td>
<td>1.25/1.6</td>
</tr>
<tr>
<td>C M32</td>
<td>1¼” or 1”</td>
<td>10</td>
<td>26.5</td>
<td>23.5</td>
<td>33.6</td>
<td>1.6/2.0</td>
</tr>
</tbody>
</table>

*T* - metric entry threads are 1.5mm pitch as standard. All dimensions in millimetres (except * where dimensions are in inches).

† Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable inner sheath diameter is 10.9mm
A fire resistant, robust and simple dual compression gland for applications using SWA or AWA cable in a heavy industrial, critical safety environment which is exposed to dust or extreme weather conditions. All cable glands can be supplied with a shroud, lock nut, serrated washer and an earth tag.

### Cable Gland Selection Table

<table>
<thead>
<tr>
<th>Size Ref.</th>
<th>Entry Thread Size 'T'</th>
<th>Length of Thread (mm)</th>
<th>Inner Sheath 'A'</th>
<th>Outer Sheath 'B'</th>
<th>Standard Steel Wire 'W'</th>
<th>'G'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Os</td>
<td>M20&quot; ¼&quot;</td>
<td>10</td>
<td>3.2</td>
<td>8.0</td>
<td>6.5</td>
<td>16.0</td>
</tr>
<tr>
<td>O</td>
<td>M20&quot; ½&quot;</td>
<td>10</td>
<td>6.5</td>
<td>11.9</td>
<td>6.5</td>
<td>16.0</td>
</tr>
<tr>
<td>A</td>
<td>M20&quot; ¾&quot; or ½&quot;</td>
<td>10</td>
<td>10.0</td>
<td>14.3</td>
<td>11.5</td>
<td>20.9</td>
</tr>
<tr>
<td>B</td>
<td>M25 1&quot; or ¾&quot;</td>
<td>10</td>
<td>13.0</td>
<td>20.2</td>
<td>17.0</td>
<td>27.2</td>
</tr>
<tr>
<td>C</td>
<td>M32 ¼&quot; or ⅛&quot;</td>
<td>10</td>
<td>19.5</td>
<td>26.5</td>
<td>23.5</td>
<td>33.6</td>
</tr>
</tbody>
</table>

### Fire Test

**In accordance with BS EN50200:2006**
(Resistance to fire with mechanical shock)

- 120mins at 830 (+40-0)°C with mechanical shock and a rated voltage of 240v rms.

**Fire test: In accordance with BS 8434-2:2003 +A2 2009**
(Resistance to fire with mechanical shock and water spray)

- 120mins at 930 (+40-0)°C with mechanical shock and a rated voltage of 240v rms.
- (60 mins fire and shock and 60 mins fire, shock and water)

### Features

- Simple robust 5 piece dual compression cable gland
- Simple mechanical clamping arrangement for all SWA and AWA cable
- Ease of assembly
- High quality materials with exceptional anti corrosion properties
- UV stable seal
- Tested to the latest industrial standards
- Excellent sealing range
- EMC tested
- All hexagon parts are the same size
- Provides cable retention seal onto the cables Outer and Inner Sheath

### Technical Data

- **Construction and Test Standards**: BS EN 62444-2013  
  BS6121: Part 1 type E1W
- **Ingress Protection**: IP66 IEC/EN 60529
- **Material**: Nickel Plated Brass with Intumescent Rubber Seal
- **Operating Temperature**: Range: -20°C to +70°C
- **Clamping Arrangement**: Two part armour clamp, dual compression seal inner and outer sheath
- **Earth**: Electrical continuity using the armour wire termination (SWA, AWA)
- **Cable Type**: Single Wire Armour SWA and AWA
- **Kit Information**: Intumescent sealing material used for FireMate versions
- **Assembly Instructions**: AI 509

Note: Displacement or Compression seals do not prevent cold flow. IP seal required to maintain IP66.

Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable inner sheath diameter is 10.9mm.
A fire resistant, robust and simple design for applications using non armoured cable in a heavy industrial, critical safety environment which is exposed to dust or extreme weather conditions. All cable glands can be supplied with a shroud, lock nut, serrated washer and an earth tag.

**Features**
- Provides a cable retention seal onto the cables outer sheath
- Simple robust single compression cable gland
- Ease of assembly
- High quality materials with exceptional anti corrosion properties
- UV stable seal
- Tested to the latest industrial standards
- Excellent sealing range
- Provides cable retention seal onto the cables Outer Sheath

**Technical Data**

<table>
<thead>
<tr>
<th>Construction and Test Standards</th>
<th>BS EN 62444:2013 BS6121:Part 1 type A2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingress Protection</td>
<td>IP66 IEC/EN 60529</td>
</tr>
<tr>
<td>Material</td>
<td>Nickel Plated Brass with Intumescent Rubber Seal</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>Range: -20°C to +70°C</td>
</tr>
<tr>
<td>Clamping Arrangement</td>
<td>Single compression seal</td>
</tr>
<tr>
<td>Cable Type</td>
<td>Non armoured</td>
</tr>
<tr>
<td>Kit Information</td>
<td>Intumescent sealing material used for FireMate versions</td>
</tr>
<tr>
<td>Assembly Instructions</td>
<td>AI 507</td>
</tr>
</tbody>
</table>

**Fire Test**

- **In accordance with BS EN50200:2006**
  - 120mins at 830 (+40-0)°C with mechanical shock and a rated voltage of 240v rms.
- **Fire test: In accordance with BS 8434-2:2003+A2 2009**
  - 120mins at 930 (+40-0)°C with mechanical shock and a rated voltage of 240v rms, (60 mins fire and shock and 60 mins fire, shock and water)

**Cable Gland Selection Table**

<table>
<thead>
<tr>
<th>Size Ref.</th>
<th>Entry Thread Size 'T'</th>
<th>Length of Thread (mm)</th>
<th>Outer Sheath 'A'</th>
<th>Hexagon Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Metric</td>
<td>'L'</td>
<td>Standard Seal</td>
<td>Across Flats</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Min</td>
<td>Max</td>
</tr>
<tr>
<td>2K</td>
<td>M16</td>
<td>10</td>
<td>3.2</td>
<td>8.0</td>
</tr>
<tr>
<td>Os</td>
<td>M20&lt;sup&gt;1&lt;/sup&gt;</td>
<td>10</td>
<td>3.7</td>
<td>8.0</td>
</tr>
<tr>
<td>O</td>
<td>M20&lt;sup&gt;1&lt;/sup&gt;</td>
<td>10</td>
<td>6.5</td>
<td>11.9</td>
</tr>
<tr>
<td>A</td>
<td>M20</td>
<td>10</td>
<td>10.0</td>
<td>14.3</td>
</tr>
<tr>
<td>B</td>
<td>M25</td>
<td>10</td>
<td>13.0</td>
<td>20.2</td>
</tr>
<tr>
<td>C</td>
<td>M32</td>
<td>10</td>
<td>19.5</td>
<td>26.5</td>
</tr>
</tbody>
</table>

All dimensions in millimetres.

<sup>1</sup> Sizes Os and O are available with an M16 thread size
For O size with M16 thread, the maximum cable outer sheath diameter is 10.9mm

*Note: Displacement or Compression seals do not prevent cold flow. IP seal required to maintain IP66.*
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