

|                                 |                                |                                 |                            |
|---------------------------------|--------------------------------|---------------------------------|----------------------------|
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**General Specification**  
**Item Specification for THERMOLOK® SEAL GLANDS MG10 / MG15 / MG20 / MG30 /**  
**MGM10 / MGM15 / MGM20 / MGM30**

**Table of contents:**

|     |  |   |
|-----|--|---|
| 1   | General .....                                  | 2 |
| 1.1 | Definitions .....                              | 2 |
| 1.2 | Foreseen application and purpose .....         | 2 |
| 1.3 | Categories and criticality .....               | 2 |
| 2   | Material properties requirements .....         | 2 |
| 3   | Form, fit and function requirements .....      | 2 |
| 3.1 | Design .....                                   | 2 |
| 3.2 | Dimensions .....                               | 3 |
| 4   | Testing and verification requirements .....    | 3 |
| 5   | Process requirements .....                     | 3 |
| 6   | Associated standards .....                     | 3 |
| 7   | Transportation and logistic requirements ..... | 3 |
| 8   | Notes .....                                    | 4 |
| 8.1 | General Notes .....                            | 4 |
| 8.2 | Identification of changes .....                | 4 |
| 9   | Appendices .....                               | 4 |

|       |              |      |      |            |       |          |
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## 1 General

### 1.1 Definitions

- (1) Alstom: Employees of Alstom or its designated representative.
- (2) Supplier: Company or factory to which inquiry or order is awarded.

### 1.2 Foreseen application and purpose

Metal cable gland for fixing and protecting the cables from water and dust.

### 1.3 Categories and criticality

- (1) Tightness up to 700°C under atmosphere pressure.
- (2) Tightness up to up to 50 bars is possible.

## 2 Material properties requirements

This section is not applicable to this specification.

## 3 Form, fit and function requirements

### 3.1 Design

Description

Seal gland consists of three stainless steel parts (AISI 316L): A body either with a cone-shaped NPT thread or with a metric thread, a ferrule and a gland nut. The body is screwed into the wall. The ferrule is slipped over the thermocouple into its chosen position and with the gland nut it is secured into position. Both ferrule and cable sheath are slightly but uniformly deformed and thus form a perfect seal.

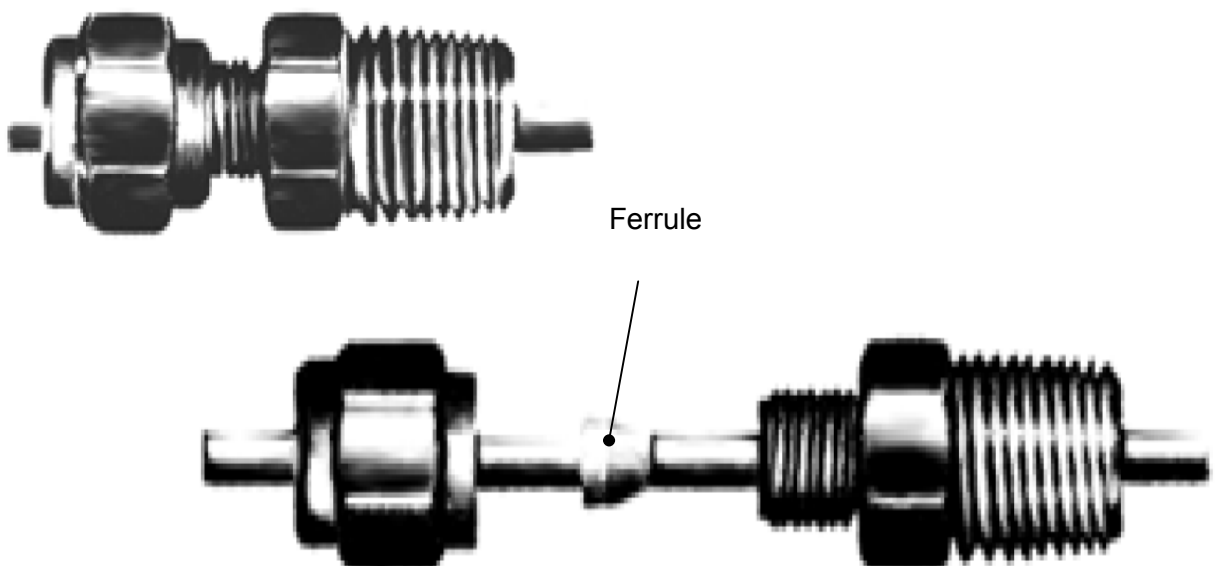


Figure 1: Thermolok Seal Gland

**3.2 Dimensions**

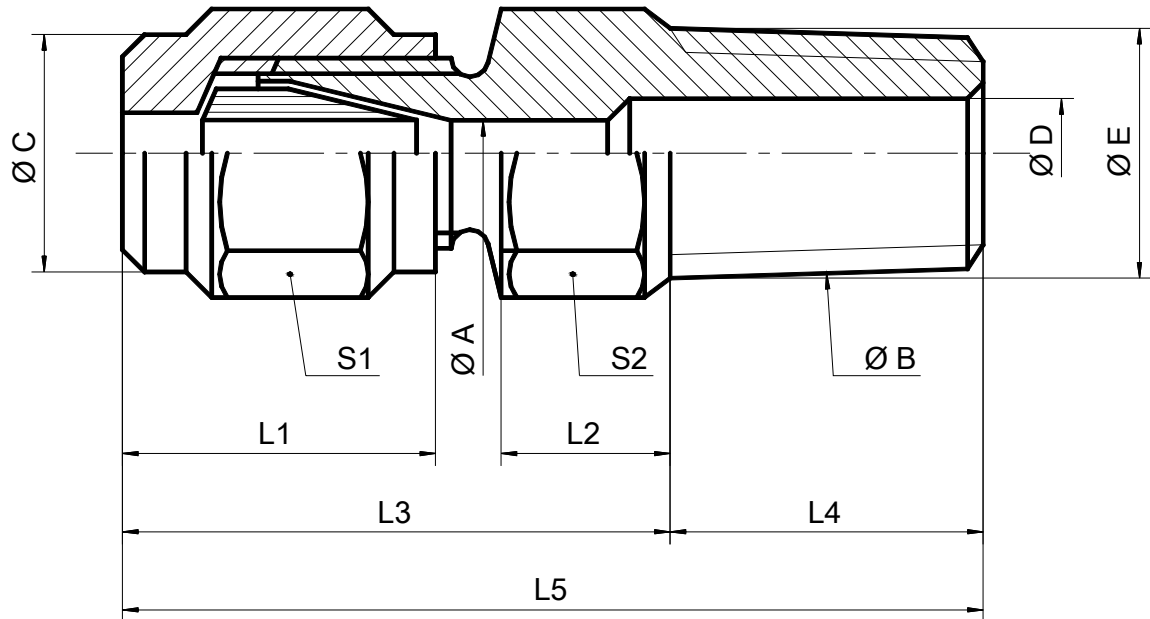


Figure 2: Seal Gland dimensions

Table 1: Seal Gland dimensions

| Code   | Diameter in [mm] |                 |                 |                 |                 | Length in [mm] |     |      |      |      | Wrench size in [mm] |    |
|--------|------------------|-----------------|-----------------|-----------------|-----------------|----------------|-----|------|------|------|---------------------|----|
|        | $\varnothing A$  | $\varnothing B$ | $\varnothing C$ | $\varnothing D$ | $\varnothing E$ | L1             | L2  | L3   | L4   | L5   | S1                  | S2 |
| MG 10  | 1.0              | NPT 1/16"       | 7.6             | 3.5             | 8.0             | 10             | 5.4 | 17.5 | 10.0 | 27.5 | 8                   | 8  |
| MG 15  | 1.5              | NPT 1/16"       | 7.6             | 3.5             | 8.0             | 10             | 5.4 | 17.5 | 10.0 | 27.5 | 8                   | 8  |
| MG 20  | 2.0              | NPT 1/16"       | 7.6             | 3.5             | 8.0             | 10             | 5.4 | 17.5 | 10.0 | 27.5 | 8                   | 8  |
| MG 30  | 3.0              | NPT 1/4"        | 12.5            | 4.3             | 13.7            | 15             | 7.2 | 27.0 | 16.2 | 43.2 | 14                  | 14 |
| MGM 10 | 1.0              | M8x1            | 7.6             | 3.5             | 8.0             | 10             | 5.4 | 17.5 | 10.0 | 27.5 | 8                   | 8  |
| MGM 15 | 1.5              | M8x1            | 7.6             | 3.5             | 8.0             | 10             | 5.4 | 17.5 | 10.0 | 27.5 | 8                   | 8  |
| MGM 20 | 2.0              | M8x1            | 7.6             | 3.5             | 8.0             | 10             | 5.4 | 17.5 | 10.0 | 27.5 | 8                   | 8  |
| MGM 30 | 3.0              | M12x1.5         | 12.5            | 4.3             | 13.7            | 15             | 7.2 | 27.0 | 16.2 | 43.2 | 14                  | 14 |

**4 Testing and verification requirements**

This section is not applicable to this specification

**5 Process requirements**

This section is not applicable to this specification

**6 Associated standards**

This section is not applicable to this specification

**7 Transportation and logistic requirements**

This section is not applicable to this specification

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## 8 Notes

### 8.1 General Notes

Following are Alstom suppliers:

- |  |   |
|--|---|
| <p>(1) Head Office and Administration<br/>THERMOCOAX SAS<br/>BP 26<br/>F-61438 Flers Cedex<br/>E-mail: <a href="mailto:planquivon@thermocoax.fr">planquivon@thermocoax.fr</a><br/>Internet: <a href="http://www.thermocoax.com">www.thermocoax.com</a></p> <p>(3) Sales Germany<br/>THERMOCOAX GmbH<br/>Brookstiege 1<br/>D-22145 Stapelfeld<br/>E-mail: <a href="mailto:info@thermocoax.com">info@thermocoax.com</a><br/>Internet: <a href="http://www.thermocoax.com">www.thermocoax.com</a></p> <p>(5) Sales United Kingdom<br/>THERMOCOAX UK Ltd.<br/>Manor Farm<br/>GB-LN5 9DX Aurbourn, Lincolnshire<br/>E-mail: <a href="mailto:info-uk@thermocoax.com">info-uk@thermocoax.com</a><br/>Internet: <a href="http://www.thermocoax.com">www.thermocoax.com</a></p> | <p>(2) Sales France and International<br/>THERMOCOAX SAS<br/>40 Boulevard Henri Sellier<br/>F-92156 Suresnes Cedex<br/>E-mail: <a href="mailto:info@thermocoax.com">info@thermocoax.com</a><br/>Internet: <a href="http://www.thermocoax.com">www.thermocoax.com</a></p> <p>(4) Sales BENELUX<br/>THERMOCOAX BV<br/>Luchthavenweg 81<br/>NL-5657 EA Eindhoven<br/>E-mail: <a href="mailto:info-nl@thermocoax.com">info-nl@thermocoax.com</a><br/>Internet: <a href="http://www.thermocoax.com">www.thermocoax.com</a></p> <p>(6) Sales USA and North America<br/>THERMOCOAX Inc.<br/>6825 Shiloh Road, East, Ste. B7<br/>Alpharetta, GA 30005 (USA)<br/>E-mail: <a href="mailto:info@thermocoax.us">info@thermocoax.us</a><br/>Internet: <a href="http://www.thermocoax.com">www.thermocoax.com</a></p> |
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### 8.2 Identification of changes

| Revision | Date       | Changes made   |
|----------|------------|--|
| B        | 2010-06-09 | Contents copied to new Alstom format and content refined |

## 9 Appendices

- Appendix A: Ordering Information

### Appendix A

Table A1

| Code    | Type and Designation                     | TC-Ø<br>[mm] | Ferrule    |        | ALSTOM Ident. no. |
|---------|--|--------------|------------|--------|-------------------|
|         |  |              | AISI 316 L | PTFE   |                   |
| MG 10   | THERMOLOK <sup>®</sup> Seal Gland MG 10  | 1.0          | FE 10      | FE 10T | HTCT444791P0010   |
| MG 15   | THERMOLOK <sup>®</sup> Seal Gland MG 15  | 1.5          | FE 15      | FE 15T | HTCT444791P0015   |
| MG 20   | THERMOLOK <sup>®</sup> Seal Gland MG 20  | 2.0          | FE 20      | FE 20T | HTCT444791P0020   |
| MG 30   | THERMOLOK <sup>®</sup> Seal Gland MG 30  | 3.0          | FE 30      | FE 30T | HTCT444791P0030   |
| MGM 10* | THERMOLOK <sup>®</sup> Seal Gland MGM 10 | 1.0          | FE 10      | FE 10T | HTCT444791P0110   |
| MGM 15* | THERMOLOK <sup>®</sup> Seal Gland MGM 15 | 1.5          | FE 15      | FE 15T | HTCT444791P0115   |
| MGM 20* | THERMOLOK <sup>®</sup> Seal Gland MGM 20 | 2.0          | FE 20      | FE 20T | HTCT444791P0120   |
| MGM 30* | THERMOLOK <sup>®</sup> Seal Gland MGM 30 | 3.0          | FE 30      | FE 30T | HTCT444791P0130   |

\* supplied with a copper sealing washer