

# Masoneilan™

## Y237 Model

Adaptor for Multiple Cable Entries

UKCA Instruction Manual & Safety Guide (Rev.A)



**THESE INSTRUCTIONS PROVIDE THE CUSTOMER/OPERATOR WITH IMPORTANT PROJECT-SPECIFIC REFERENCE INFORMATION IN ADDITION TO THE CUSTOMER/OPERATOR'S NORMAL OPERATION AND MAINTENANCE PROCEDURES. SINCE OPERATION AND MAINTENANCE PHILOSOPHIES VARY, BAKER HUGHES COMPANY (AND ITS SUBSIDIARIES AND AFFILIATES) DOES NOT ATTEMPT TO DICTATE SPECIFIC PROCEDURES, BUT TO PROVIDE BASIC LIMITATIONS AND REQUIREMENTS CREATED BY THE TYPE OF EQUIPMENT PROVIDED.**

**THESE INSTRUCTIONS ASSUME THAT OPERATORS ALREADY HAVE A GENERAL UNDERSTANDING OF THE REQUIREMENTS FOR SAFE OPERATION OF MECHANICAL AND ELECTRICAL EQUIPMENT IN POTENTIALLY HAZARDOUS ENVIRONMENTS. THEREFORE, THESE INSTRUCTIONS SHOULD BE INTERPRETED AND APPLIED IN CONJUNCTION WITH THE SAFETY RULES AND REGULATIONS APPLICABLE AT THE SITE AND THE PARTICULAR REQUIREMENTS FOR OPERATION OF OTHER EQUIPMENT AT THE SITE.**

**THESE INSTRUCTIONS DO NOT PURPORT TO COVER ALL DETAILS OR VARIATIONS IN EQUIPMENT NOR TO PROVIDE FOR EVERY POSSIBLE CONTINGENCY TO BE MET IN CONNECTION WITH INSTALLATION, OPERATION OR MAINTENANCE. SHOULD FURTHER INFORMATION BE DESIRED OR SHOULD PARTICULAR PROBLEMS ARISE WHICH ARE NOT COVERED SUFFICIENTLY FOR THE CUSTOMER/OPERATOR'S PURPOSES THE MATTER SHOULD BE REFERRED TO BAKER HUGHES.**

**THE RIGHTS, OBLIGATIONS AND LIABILITIES OF BAKER HUGHES AND THE CUSTOMER/OPERATOR ARE STRICTLY LIMITED TO THOSE EXPRESSLY PROVIDED IN THE CONTRACT RELATING TO THE SUPPLY OF THE EQUIPMENT. NO ADDITIONAL REPRESENTATIONS OR WARRANTIES BY BAKER HUGHES REGARDING THE EQUIPMENT OR ITS USE ARE GIVEN OR IMPLIED BY THE ISSUE OF THESE INSTRUCTIONS.**

**THESE INSTRUCTIONS ARE FURNISHED TO THE CUSTOMER/OPERATOR SOLELY TO ASSIST IN THE INSTALLATION, TESTING, OPERATION, AND/OR MAINTENANCE OF THE EQUIPMENT DESCRIBED. THIS DOCUMENT SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE WRITTEN APPROVAL OF BAKER HUGHES.**

## INDEX

1. OVERVIEW .....	5
2. NUMBERING SYSTEM.....	5
3. MARKING .....	5
4. INSTALLATION .....	6
5. MAINTENANCE and SERVICE .....	6
6. SPECIAL CONDITIONS OF USE .....	6
ANNEX .....	8

## WARNING

**BEFORE installing, using or carrying out any maintenance tasks associated with this instrument, READ THE INSTRUCTIONS CAREFULLY.**

The Y237 complies with UK statutory requirements SI 2016 No. 1107 amended by SI 2019 No.696.

It is certified to be used in Gas or Dust explosive atmospheres, groups IIA, IIB, IIC and IIIC:

- Category II 1GD – zones 0, 1, 2, 20, 21 and 22 for the protection mode "ia"
- Category II 2GD – zones 1, 2, 21 and 22 for the protection mode "db" and "tb"

Products certified as **explosion proof equipment MUST BE:**

- a) Installed, put into service, used and maintained in compliance with UK statutory requirements SI 2016 No 1107 and in accordance with the recommendations contained in the relevant standards concerning potentially explosive atmospheres.
- b) Used only in situations those comply with the certification conditions shown in this document and after verification of their compatibility with the zone of intended use and the permitted maximum ambient temperature.
- c) Installed, put into service and maintained by qualified and competent professionals who have undergone suitable training for instrumentation used in areas with potentially explosive atmosphere. Such trainings are not supported by Baker Hughes.

**It is the end user's responsibility to:**

- **Verify material compatibility with the application**
- **Ensure proper use of fall protection when working at heights, per Safe Site Work Practices**
- **Ensure use of proper Personal Protective Equipment**
- **Take the appropriate actions to ensure that site personnel who are performing installation, commissioning and maintenance have been trained in proper site procedures for working with and around equipment, per Safe Site Work Practices**

**Baker Hughes reserves the right to discontinue manufacture of any product or change product materials, design, or specifications without notice.**

Under certain operating conditions, the use of damaged instruments could cause a degradation of the performances of the system which may lead to personal injury or death.

Use only genuine replacement parts, which are provided by the manufacturer to guarantee that the products comply with UK statutory requirements SI 2016 No 1107.

## 1. OVERVIEW

The Y237 adaptor is a mechanical component designed to be mounted only on Dresser Produits Industriels S.A.S. electrical instruments. This device must be rated with the related instrument.

This document defines the requirements for safe installation and operation of the Y 237 on an electrical instrument according to the UK statutory requirements SI 2016 No 1107.

## 2. NUMBERING SYSTEM

- This adaptor is identified: **Y237**
- A suffix indicates the type of male and female threading as well as the material used according to the variants of the table below:

	Material	Male	Female*
<b>Y237 -</b>	A- Aluminum	1- 1/2" NPT	1- 1/2" NPT
	S- Stainless Steel	2- 3/4" NPT	2- 3/4" NPT 3- M20

\*The three female inputs are identical

## 3. MARKING

The serial plate stamped on the adaptor Y237 includes the following data:

- Name and address of the manufacturer

**Dresser Produits Industriels S.A.S.  
14110 CONDE SUR NOIREAU – FRANCE**

- Type designation: **Y237**  
See numbering system §2 for complete codification.

- Basic marking:

 II 2 G/D

- Complementary marking:  
**Ex db IIC Gb et Ex tb IIIC Db**

- Serial number,

- Year of manufacturing

- UK Approved Body:  
Eurofins E&E CML (2503)

- UK Ex certificate :  
CML 21UKEX1674X

- WARNING:  
"POTENTIAL DANGER OF ELECTROSTATIC CHARGES"  
"THREADED ENTRIES - SEE INSTRUCTIONS"

#### 4. INSTALLATION

- The device must be installed and put into service in conformance with **EN/IEC 60079-14** and / or national and local regulations applicable for explosible atmospheres.
- The adaptor **Y237** allows the mounting of multiple cable entries (3 maximum).
- The implantation threads on the device and implantation tapping of the cable gland are given by the following table:

Y237 -	Material	Male	Female*
	A- Aluminum	3- 1/2" NPT	4- 1/2" NPT
S- Stainless Steel	4- 3/4" NPT	5- 3/4" NPT	
		6- M20	

*\*The three female inputs are identical on the Y237*

- If one **Y237** input is not used, the conduit will be closed by a plug if apparatus certified UKCA (type Cooper CAPRI CODEC).
- See **ANNEX** for the mounting rules and to meet a requested **IP66/67** protection.

#### 5. MAINTENANCE and SERVICE

- These operations must be done in conformance with EN/IEC 60079-17 and / or national and local regulations applicable for explosible atmospheres.
- Before carrying out any work on the device, check the local conditions are free of potentially explosive atmosphere for safe operations.
- The component requires no special maintenance other than checking the correct tightening at least once a year.

#### 6. SPECIAL CONDITIONS OF USE

**6.1.** Y237 can ONLY be mounted on instruments manufactured by Dresser Produits Industriels S.A.S.

**6.2.** For ambient temperature greater than 70°C, the user must choice a cable entry and a cable compatible with:

Ambient Temperature	Cable Temperature
75°C	80°C
80°C	85°C
85°C	90°C

**6.3.** Y237 is intended to be used in an ambient temperature from -55°C to +85°C.

**6.4.** The cable entry and the cable must be compatible with the minimum temperature of -55°C.

**6.5.** If a cable input from the Y237 adaptor is not used, the hole must be closed by a plug, depending on the size of the tapping involved.

**6.6.** In case of two cable gland entries not used, the Y237 must be removed.

**6.7.** The plug must be directly screwed on the Y237.

**6.8.** Adaptor or reducer are not allowed.

- 6.9.** The external thread (male) shall be cemented with high-strength threadlocker type Loctite 2700 or equivalent product with similar efficiency to secure the Y237 in the intended direction.
- 6.10.** The supply of cable gland, plug and the mounting on the conduit connection can be made by the end user with respect to the mounting rules defined in the ANNEX.
- 6.11.** For use in dusty hazardous areas (zone 21 & 22), the user will have to proceed to a cleaning regularly the different sides of the enclosure to avoid the deposits of dusts, the maximum thickness must be <5 mm. This cleaning will be done with respect to the next requirement §6.12. It is recommended for safe operation, the local conditions around the device are free of potentially explosive atmosphere.
- 6.12.** To avoid the risk of ignition from electrostatic discharge it shall be necessary to follow the guidance of IEC/TS 60079-32-1 for example to clean the device with a wet rag. It is recommended for safe operation, the local conditions around the device are free of potentially explosive atmosphere.
- 6.13.** The user will have to check the temperature increase on the Y237 adaptor coming from the mechanical part in contact with it or through the process thermal radiation be less or equal than the temperature classification allowed. This must be done in conformance with EN60079-14 and / or national and local regulations applicable for explosible atmospheres.
- 6.14.** The flameproof joints are not intended to be repaired.
- 6.15.** Potential danger of electrostatic charges: see instructions.
- 6.16.** The other conditions of use are stipulated in the instructions.

ANNEX

**Y237 ADAPTOR – MOUNTING RULES**

CABLE GLAND		PLUG	
Housing certified II 2 GD Ex db IIC / Ex tb IIIC	Cable gland certified II 2 GD Ex db IIC / Ex tb IIIC	Housing certified II 2 GD Ex db IIC / Ex tb IIIC	Plug certified II 2 GD Ex db IIC / Ex tb IIIC
<p><b>Rep A :</b>  <b>TYPE :</b> Male Taper (conical) threaded joint: 3/4" NPT</p> <ul style="list-style-type: none"> <li>Conform to NPT requirements of ANSI/ASME B.1.20.1</li> <li>A minimum of 5 threads provided on each part</li> </ul> <p><b>MOUNTING RULE:</b></p> <ul style="list-style-type: none"> <li>Thread cleaning with Loctite 7063 or equivalent product with similar efficiency.</li> <li>Cemented with Loctite 2700 (<u>high-strength threadlocker</u>) or equivalent product with similar efficiency. This is mandatory to meet an IP67.</li> <li>Tightening torque (see Cable Gland instruction manual)</li> <li>Check threads engagement (see Cable Gland instruction manual)</li> </ul> <p><b>Rep B:</b>  <b>TYPE:</b> Female Taper (conical) thread joints: 1/2" NPT or 3/4" NPT</p> <ul style="list-style-type: none"> <li>Conform to NPT requirements of ANSI/ASME B.1.20.1</li> <li>A minimum of 5 threads provided on each part</li> </ul> <p><b>TYPE:</b> Female Cylindrical threaded joints: M20 x 1.5</p> <ul style="list-style-type: none"> <li>Conform to ISO 965-1 and ISO 965-3 requirements</li> <li>Minimum thread engaged: 5</li> <li>Depth of engagement: ≥ 8 mm</li> </ul> <p><b>MOUNTING RULE:</b></p> <ul style="list-style-type: none"> <li>Thread cleaning with Loctite 7063 or equivalent product with similar efficiency.</li> <li>Cemented with Loctite 5400 (low strength thread sealant) or equivalent product with similar efficiency. This is mandatory to meet an IP67.</li> <li>Tightening torque (see Cable Gland instruction manual)</li> <li>Check threads engagement (see Cable Gland instruction manual)</li> </ul>		<p><b>Rep A :</b>  <b>TYPE :</b> Male Taper (conical) threaded joint: 3/4" NPT</p> <ul style="list-style-type: none"> <li>Conform to NPT requirements of ANSI/ASME B.1.20.1</li> <li>A minimum of 5 threads provided on each part</li> </ul> <p><b>MOUNTING RULE:</b></p> <ul style="list-style-type: none"> <li>Thread cleaning with Loctite 7063 or equivalent product with similar efficiency.</li> <li>Cemented with Loctite 2700 (<u>high-strength threadlocker</u>) or equivalent product with similar efficiency. This is mandatory to meet an IP67.</li> <li>Tightening torque (see Cable Gland instruction manual)</li> <li>Check threads engagement (see Cable Gland instruction manual)</li> </ul> <p><b>Rep B:</b>  <b>TYPE:</b> Female Taper (conical) thread joints: 1/2" NPT or 3/4" NPT</p> <ul style="list-style-type: none"> <li>Conform to NPT requirements of ANSI/ASME B.1.20.1</li> <li>A minimum of 5 threads provided on each part</li> </ul> <p><b>TYPE:</b> Female Cylindrical threaded joints: M20 x 1.5</p> <ul style="list-style-type: none"> <li>Conform to ISO 965-1 and ISO 965-3 requirements</li> <li>Minimum thread engaged: 5</li> <li>Depth of engagement: ≥ 8 mm</li> </ul> <p><b>MOUNTING RULE:</b></p> <ul style="list-style-type: none"> <li>Thread cleaning with Loctite 7063 or equivalent product with similar efficiency.</li> <li>Cemented with Loctite 2700 (<u>high-strength threadlocker</u>) or equivalent product with similar efficiency. This is mandatory to meet an IP67.</li> <li>Tightening torque (see Cable Gland instruction manual)</li> <li>Check threads engagement (see Cable Gland instruction manual)</li> <li><b>One plug only allowed or remove the Y237 (two plugs not allowed)</b></li> </ul>	



# Direct Sales Office Locations

## **Australia**

Brisbane  
Phone: +61-7-3001-4319

Perth  
Phone: +61-8-6595-7018

Melbourne  
Phone: +61-3-8807-6002

## **Brazil**

Phone: +55-19-2104-6900

## **China**

Phone: +86-10-5738-8888

## **France**

Courbevoie  
Phone: +33-1-4904-9000

## **India**

Mumbai  
Phone: +91-22-8354790

## **New Delhi**

Phone: +91-11-2-6164175

## **Italy**

Phone: +39-081-7892-111

## **Japan**

Tokyo  
Phone: +81-03-6871-9008

## **Korea**

Phone: +82-2-2274-0748

## **Malaysia**

Phone: +60-3-2161-03228

## **Mexico**

Phone: +52-55-3640-5060

## **Russia**

Veliky Novgorod  
Phone: +7-8162-55-7898

## **Moscow**

Phone: +7-495-585-1276

## **Saudi Arabia**

Phone: +966-3-341-0278

## **Singapore**

Phone: +65-6861-6100

## **South Africa**

Phone: +27-83-387-9300

## **South & Central America and the Caribbean**

Phone: +55-12-2134-1201

## **Spain**

Phone: +34-935-877-605

## **United Arab Emirates**

Phone: +971-4-8991-777

## **United Kingdom**

Phone: +44-7919-382-156

## **United States**

Houston, Texas  
Phone: +1-713-966-3600

**Find the nearest local Channel Partner in your area:**

[valves.bakerhughes.com/contact-us](http://valves.bakerhughes.com/contact-us)

## **Tech Field Support & Warranty:**

Phone: +1-866-827-5378  
[valvesupport@bakerhughes.com](mailto:valvesupport@bakerhughes.com)

[valves.bakerhughes.com](http://valves.bakerhughes.com)

Copyright 2021 Baker Hughes Company. All rights reserved. Baker Hughes provides this information on an "as is" basis for general information purposes. Baker Hughes does not make any representation as to the accuracy or completeness of the information and makes no warranties of any kind, specific, implied or oral, to the fullest extent permissible by law, including those of merchantability and fitness for a particular purpose or use. Baker Hughes hereby disclaims any and all liability for any direct, indirect, consequential or special damages, claims for lost profits, or third party claims arising from the use of the information, whether a claim is asserted in contract, tort, or otherwise. Baker Hughes reserves the right to make changes in specifications and features shown herein, or discontinue the product described at any time without notice or obligation. Contact your Baker Hughes representative for the most current information. The Baker Hughes logo and Masoneilan are trademarks of Baker Hughes Company. Other company names and product names used in this document are the registered trademarks or trademarks of their respective owners.