

Bulletin 800G Assembled Stations

Catalog Numbers 800G-1x-EX, 800G-2x-EX, 800G-3x-EX



ATTENTION: To help prevent electrical shock, disconnect from power source before installing or servicing. Follow NFPA 70E requirements. Install in suitable enclosure. Keep free from contaminants.

Only suitably trained personnel can install, adjust, commission, use, assemble, disassemble, and maintain the product in accordance with applicable code of practice. If a malfunction or damage occurs, do not attempt to repair the product.

IMPORTANT

When working in hazardous areas, the safety of personnel and equipment depends on compliance with the relevant safety regulations. The people in charge of installation and maintenance bear a special responsibility. They must be knowledgeable of the applicable rules and regulations.

These instructions provide a summary of the most important installation measures. Everyone working with the product must read these instructions so that they are familiar with the correct handling of the product.

Keep these instructions for future reference as they must be available throughout the expected life of the product.

Product Description

There are many variations and configurations available for assembled station solutions. All assembled station configurations use a one-hole (800G-1x-EX), two-hole (800G-2x-EX), or three-hole (800G-3x-EX) enclosure with various front-of-panel operators and back-of-panel components.

Up to three enclosures of any size can be ganged together in a vertical arrangement, allowing a combined assembled station to have up to nine operators (three enclosures with each enclosure containing three operators). Assembled stations have various conduit-entry configurations using plastic or metal cable glands, along with many different accessories such as locking covers, locking guards, and custom legend plates. Assembled stations must be ordered directly from Rockwell Automation to maintain compliance with hazardous location standards and certifications; field assembly is not permitted.

	Assembled Stations
Certifications	
ATEX	CML 15 ATEX 3024
IECEx	IECEx CML 15.0014
NEPSI	GY17.1200X
INMETRO	UL-BR 17.0366
Gas Protection Type	II 2 G Ex db eb IIC T6 Gb
Dust Protection Type	II 2 D Ex tb IIC T80°C Db

	Assembled Stations
Mechanical and Electrical Ratings	
Zone Rating	Zone 1, Zone 2, Zone 21, Zone 22
Ambient Temperature Range	-55...+60 °C (-67...+140 °F)
Degree of Protection	IP64/IP66
Enclosure Material	Thermoplastic
Enclosure Sizes	One-hole, two-hole, or three-hole
Ganged Enclosures	Up to three enclosures
Cable Gland Clamping Range	
Plastic M20/Plastic M20x2	Cable Ø7...13 mm (9/32...33/64 in.)
Plastic M25	Cable Ø12...17 mm (15/32...43/64 in.)
Metal M20	Cable Ø8.5...14.5 mm (21/64...37/64 in.)
Metal M25	Cable Ø12...20 mm (15/32...25/32 in.)
Metal M20x2	Cable Ø6...12 mm (15/64...15/32 in.)
Metal Cable Gland Armor™ Wire Size	
Metal M20	Armor wire Ø0.8...1.3 mm (1/32...3/64 in.)
Metal M25	Armor wire Ø1.0...1.6 mm (3/64...1/16 in.)
Metal M20 x 2	Armor wire Ø0.7...1.2 mm (1/32...3/64 in.)
Contact Block Components	
Rated Insulation Voltage, Max	690V AC
Rated Voltage (U _e)	AC 250V and 400V; DC 24V and 110V
Utilization Category (AC)	AC-12: 16 A, 400V, AC-15: 10 A, 400V
Utilization Category (DC)	DC-13: 1 A, 24V, DC-13: 0.5 A, 110V
Conventional Thermal Current (I _{the})	16 A / 40 °C (104 °F) 11 A / 60 °C (140 °F)
Contact Options	1 N.O./1 N.C., 2 N.O., 2 N.C.
Wire/Cable Size	0.75...2.5 mm ² (18...14 AWG)
Power Module Components	
Rated Insulation Voltage	300V
Power Consumption	≤ 1 W
Rated Voltage (U _e) T _a < 50 °C (122 °F)	12...250V AC, 12...60V DC
Rated Voltage (U _e) T _a < 60 °C (140 °F)	12...24V AC/DC
Wire/Cable Size	0.75...2.5 mm ² (18...14 AWG)
Power Module with Contact Block Components	
Rated Insulation Voltage	300V
Power Consumption	≤ 1 W
Rated Voltage (U _e) T _a < 50 °C (122 °F)	12...250V AC, 12...60V DC
Rated Voltage (U _e) T _a < 60 °C (140 °F)	12...24V AC/DC
Contact Options	1 N.O., 1 N.C.
Utilization Category (AC)	AC-15: 1 A, 230V
Utilization Category (DC)	DC-13: 0.25 A, 24V
Wire/Cable Size	0.75...2.5 mm ² (18...14 AWG)

Safety Instructions

Improper installation can cause malfunctioning and the loss of explosion protection.

All assembled stations can only be used within the specified ambient temperature range (depending on the voltage, current, and hazardous area classification).

Use in areas other than those areas specified or the modification of the product by anyone other than the manufacturer is not permitted and exempts Rockwell Automation from liability for defects and any further liability.

The applicable statutory rules and other binding directives that relate to workplace safety, accident prevention, and environmental protection must be observed.

Before you commission or restart operation, check compliance with all applicable laws and directives.

All enclosures, front-of-panel operators, and back-of-panel modules can be used only if they are in a clean, undamaged condition. Do not modify these components in any way.

Standards Conformed To

- | | | | |
|---------------|---------------|---------------|----------------|
| • EN 60079-0 | • EN 60079-1 | • EN 60079-7 | • EN 60079-31 |
| • IEC 60079-0 | • IEC 60079-1 | • IEC 60079-7 | • IEC 60079-31 |

Assemble, Install, and Commission



ATTENTION: Risk of serious injury due to incorrect assembly, installation, and commissioning.

- Only qualified personnel are allowed to assemble, disassemble, install, and commission the device.
- Protect devices against mechanical damage or electrostatic discharge.
- Use suitable tools for installation. Do not modify the assembled station or components in any way.
- Use cable that is rated with an appropriate temperature range suitable for the application.
- IEC/EN 60079-17 must be observed.

Installation and Removal

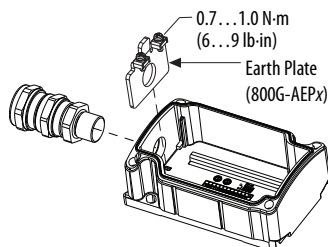
IMPORTANT The assembled stations that are pictured serve as an example for all assembled station configurations.

Protective Earthing Components

For metal cable glands, follow these steps:

IMPORTANT An earth plate must be used for grounding enclosures with a metal cable gland.

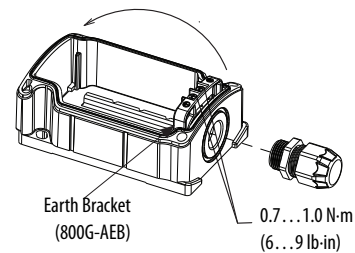
1. Position the earth plate where the metal cable gland is installed (top or bottom).
2. Install the earth plate between the rib and inside wall of the enclosure.
3. Open the terminal cages of the earth plate and insert the conductors.
4. Tighten the earth plate terminals to a torque range of 0.7...1.0 N·m (6...9 lb-in).



For plastic cable glands, follow these steps:

IMPORTANT An earth bracket must be used for grounding enclosures with a plastic cable gland.

1. Position the earth bracket where the plastic cable gland is installed (top or bottom).
2. Install the earth bracket between the rib and inside wall of the enclosure.
3. Open the terminal cages of the earth bracket and insert the conductors.
4. Tighten the earth bracket terminals to a torque range of 0.7...1.0 N·m (6...9 lb-in).



Contact Blocks and Power Modules

To install contact blocks and power modules, follow these steps:

1. Align the notch of the component with the cut-out in the enclosure rail.
2. Snap the contact block or power module onto the rail of the enclosure.
3. Check that the component is secured to the enclosure rail.

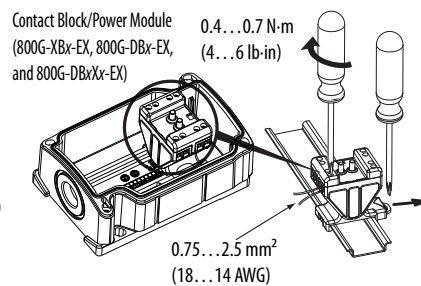
To remove contact blocks and power modules, follow these steps:

1. Position a screwdriver inside of the black tab at the base of the component.
2. Gently pull the black tab in a direction away from the enclosure rail.
3. Lift up on the component to remove it from the enclosure rail.

Wiring Contact Blocks and Power Modules

Take care when following these steps to connect cable to contact blocks or power modules:

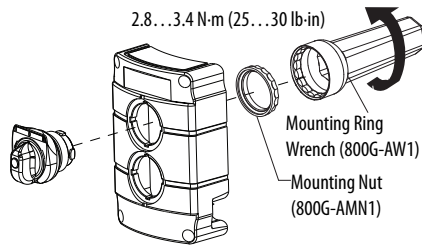
1. Strip 40 mm (1.575 in.) of sheath off the cable.
2. Remove approximately 6 mm (.236 in.) of insulation from the conductors.
3. Prepare the ends of the fine-stranded and multi-stranded conductors. Crimp wire end sleeves with a suitable crimp tool. Suitable connection cross-sections are 0.75...2.5 mm² (18...14 AWG).
4. Open terminal cage and insert conductors.
5. Tighten the terminals to a torque range of 0.4...0.7 N·m (3.5...6.2 lb-in).



Operators

To install operators, follow these steps:

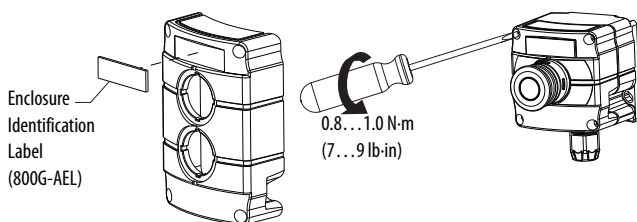
1. Align the four tabs on the operator with the notches inside of the enclosure cover.
2. Secure the operator by twisting the mounting ring wrench in a clockwise direction.
3. Tighten the mounting ring nut to a torque range of 2.8...3.4 N·m (25...30 lb-in).
4. If installing a replacement operator, verify that the operator plunger aligns with the contact block pins.



To remove operators, follow these steps:

1. Loosen the mounting ring by twisting the wrench in a counterclockwise direction.
2. Remove the operator and install an equivalent replacement operator (same part number).

Enclosure



1. Install the optional enclosure identification label in the recess of the enclosure cover.
2. Reference the mounting hole pattern that is given in [Enclosure Mounting on page 4](#).
3. Tighten the hardware to enclosure base.
4. All open cable entry holes must be sealed with a certified stopping plug.
5. Tighten the enclosure cover screws to a torque range of 0.8...1.0 N·m (7...9 lb-in).

Commissioning

Before commissioning, check the following:

- The assembled station has been installed in compliance with the regulations.
- The assembled station is not damaged (free of cracks or physical damage) and is clean.
- The connection has been established properly and verify that the conductors are secure.
- The minimum ingress protection levels have been met for the hazardous location environment (gas explosion IP64, dust explosion IP6X).

Maintenance



ATTENTION: Risk of serious injury due to incorrect maintenance.

- Only qualified personnel are allowed to do any maintenance and fault clearance.
- IEC/EN 60079-17 must be observed.

You must keep all assembled station components in good condition, operate them properly, monitor them, and clean them regularly.

- Check all operators, modules, contact blocks, seals, glands, and cables regularly for cracks, damage, and physical defects. Verify that they are properly installed.

IMPORTANT

- You can clean operators with compressed air.
- Do not clean contact blocks or power modules with compressed air.
- Enclosures can be cleaned with a wet cloth; enclosures are limited to wet cleaning!

Repair and Replacement



ATTENTION: Defective operators, contact blocks, power modules, accessories, and enclosures cannot be repaired; they must be replaced.

- Operators are defective if they no longer actuate the attached back-of-panel components, if the lens is damaged on illuminated operators, or if the integrity of the device and/or sealing has been compromised.
- Back-of-panel devices are defective if the contact block does not function properly or the indicator does not illuminate on the power module.
- The enclosure is defective if the gasket or enclosure body have cracks, damage, or physical defects.
- Devices must be replaced with an equivalent catalog number from the manufacturer.

Accessories and Replacement Parts

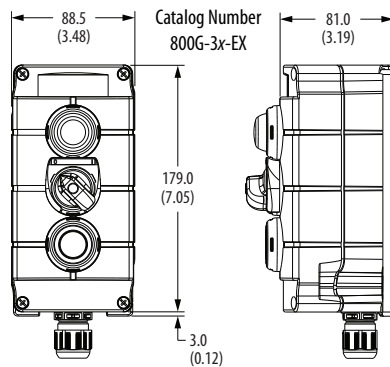
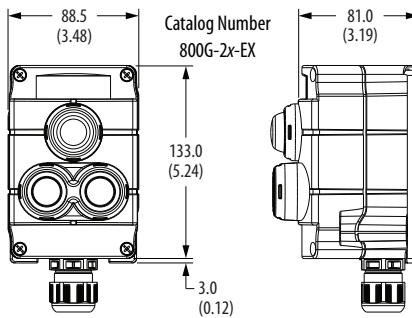
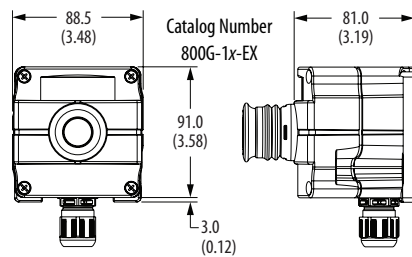
For more accessories and replacement parts that Rockwell Automation offers, see <https://ab.rockwellautomation.com/Push-Buttons/Hazardous-Location/800G>.

Disposal

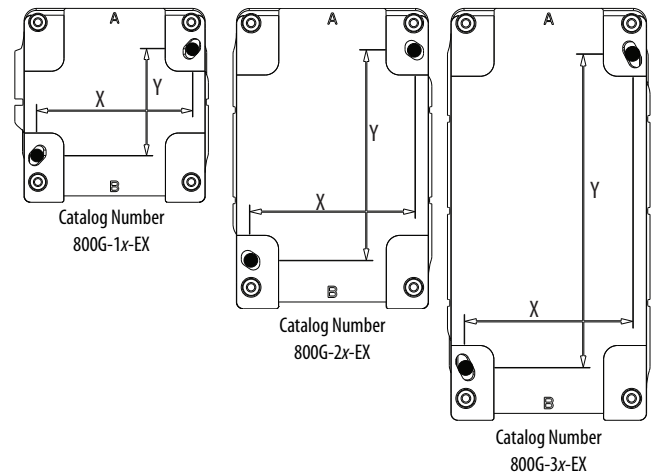
At the end of its life, this equipment must be collected separately from any unsorted municipal waste. Follow all local and national requirements for disposal of this product.

Approximate Dimensions

Dimensions are shown in millimeters (inches).



Enclosure Mounting



Cat. No.	Hole Ø [mm (in.)]	X - Width [mm (in.)]	Y - Height [mm (in.)]
800G-1x-EX	5.5 (7/32)	73 (2-7/8)	50 (1-31/32)
800G-2x-EX			93 (3-21/32)
800G-3x-EX			136 (5-23/64)

Declaration of Conformity

Rockwell Automation, Inc. declares that the 800G-1x-EX, 800G-2x-EX, and 800G-3x-EX Series A Assembled Stations are in compliance with Essential Health and Safety Requirements of Directive 2014/34/EU (ATEX) as follows:

- Equipment Group II, Equipment Category 2
- Type of Protection “Ex db eb IIC Gb / Ex tb IIIC T80°C Db”
- Compliance to standards EN 60079-0:2012+A11:2013, EN 60079-1:2014, EN 60079-7: 2015, and EN 60079-31: 2014 per ATEX Type Examination Certificates CML 15ATEX3024

The full text of the EU declaration of conformity is available at the following website:

<http://www.rockwellautomation.com/global/certification>

Rockwell Automation maintains current product environmental information on its website at

<http://www.rockwellautomation.com/rockwellautomation/about-us/sustainability-ethics/product-environmental-compliance.page>.

EEE Yönetmeligine Uygundur.

Allen-Bradley, Armor, Rockwell Automation, and Rockwell Software are trademarks of Rockwell Automation, Inc.

Trademarks not belonging to Rockwell Automation are property of their respective companies.

Rockwell Otomasyon Ticaret A.Ş., Kar Plaza İş Merkezi E Blok Kat:6 34752 İçerenköy, İstanbul, Tel: +90 (216) 5698400

www.rockwellautomation.com

Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

Publication 800G-IN005A-EN-P - May 2018

10001535808 Ver 00

Copyright © 2018 Rockwell Automation, Inc. All rights reserved. Printed in the U.S.A.