Installation Instructions

Bulletin 800G Assembled Stations
Catalog Numbers 800G-1x-EX, 800G-2x-EX, 800G-3x-EX

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 must be ordered directly from Rockwell Automation to maintain compliance with hazardous location standards and certifications; field assembly is not permitted.

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
- IEC 60079-0
- IEC 60079-1
- IEC 60079-7
- IEC 60079-31

**Assembly, 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 (4...6 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

- 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.

ATTENTION: Risk of serious injury due to incorrect maintenance.

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

- 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.

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

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).

<table>
<thead>
<tr>
<th>Dimensions (mm)</th>
<th>Dimensions (in.)</th>
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<tbody>
<tr>
<td>88.5 (3.48)</td>
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<tr>
<td>81.0 (3.19)</td>
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Endurance Mounting

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”

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

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