



# GT10 Protective Cover for Oil

## User's Manual



Manual Number	JY997D39601F
Date	May 2020

This manual describes the part names, installation, and specifications of the product. Before use, read this manual and manuals of relevant products fully to acquire proficiency in handling and operating the product. Make sure to learn all the product information, safety information, and precautions.

And, store this manual in a safe place so that you can take it out and read it whenever necessary. Always forward it to the end user.

Registration  
The company name and the product name to be described in this manual are the registered trademarks or trademarks of each company.

Effective: May 2020  
Specifications are subject to change without notice.

© 2010 MITSUBISHI ELECTRIC CORPORATION

### Safety Precaution (Read these precautions before using.)

Before using this product, please read this manual and the relevant manuals introduced in this manual carefully and pay full attention to safety to handle the product correctly.

The precautions given in this manual are concerned with this product.

In this manual, the safety precautions are ranked as **WARNING** and **CAUTION**.

<b>WARNING</b>	Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.
<b>CAUTION</b>	Indicates that incorrect handling may cause hazardous conditions, resulting in medium or slight personal injury or physical damage.

Depending on circumstances, procedures indicated by **CAUTION** may also be linked to serious results.

In any case, it is important to follow the directions for usage.

**MOUNTING PRECAUTIONS** **WARNING**

- Be sure to shut off all phases of the external power supply used by the system before mounting or removing the GOT to/from the panel.  
Not doing so can cause the unit to fail or malfunction.

**MOUNTING PRECAUTIONS** **CAUTION**

- When mounting the GOT to the control panel, tighten the mounting screws in the specified torque range.  
Undertightening can cause the GOT to drop, short circuit or malfunction, and deteriorate the waterproof effect and oilproof effect.  
Overtightening can cause a drop, short circuit or malfunction due to the damage of the screws or the GOT, and deteriorate the waterproof effect and oilproof effect due to distortion of the protective cover for oil, GOT or panel.

**DISPOSAL PRECAUTIONS** **CAUTION**

- When disposing of the product, handle it as industrial waste.

### Related Manuals

The following manuals are relevant to this product. When these loose manuals are required please consult with our local distributor.

Manual name	Manual Number (Model Code)	Contents
GT10 User's Manual	JY997D24701 (09R819)	Describes the GT10 hardware-relevant content such as part names, external dimensions, mounting, wiring, specifications, and introduction to option devices. (sold separately)

### Bundled Items

Bundled item	Quantity
GT10 protective cover for oil	1
GT10 Protective Cover for Oil User's Manual (This manual)	1

**Referenced Standard: GB/T15969.2**  
**(Requirement of Chinese standardized law)**

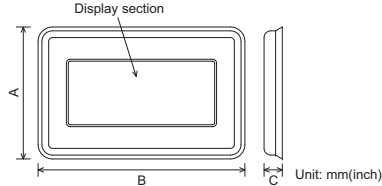
### 1. Overview

User of the GT10 protective cover for oil (hereinafter referred to as "protective cover for oil") improves oil performance, and chemical performance of the GOT.\*1

\*1 Note that the structure does not guarantee protection in all users' environments. The protective cover for oil may not be used in an environment where it is exposed to oil or chemicals for a long time, or where oil mist fills the air. The following GOT models support the protective cover for oil.

Model	GOT
GT10-20PCO	GT1020-L□D(W), GT1020-L□D(W)2, GT1020-L□L(W), GT2103-PMBD, GT2103-PMBDS, GT2103-PMBDS2, GT2103-PMBLS
GT10-30PCO	GT1030-L□D(W), GT1030-L□D(W)2, GT1030-L□L(W), GT1030-H□D(W), GT1030-H□D(W)2, GT1030-H□L(W), GT2104-PMBD, GT2104-PMBDS, GT2104-PMBDS2, GT2104-PMBLS
GT10-40PCO	GT1045-QSBD, GT1040-QBBD

### 2. Part Names and External Dimensions



Model	A	B	C
GT10-20PCO	85(3.35")	124(4.89")	10(0.4")
GT10-30PCO	87(3.43")	1P56(6.15")	10(0.4")
GT10-40PCO	123(4.85")	150(5.91")	11(0.44")

### 3. Specifications

#### 3.1 General specifications

The performance specifications of the protective cover for oil are indicated below.

Item	Specifications
Operating ambient temperature	0°C to 50°C
Storage ambient temperature	-20°C to 50°C
Operating ambient humidity	10% RH to 90% RH, non-condensing
Storage ambient humidity	10% RH to 90% RH, non-condensing

#### 3.2 Performance Specifications

The performance specifications of the protective cover for oil are indicated below.

Item	GT10-20PCO	GT10-30PCO	GT10-40PCO
Level of protection	IP67*1 Caution: The protective cover for oil may not be used in an environment where it is exposed to oil or chemicals for a long time, or where oil mist fills the air.		
Material	Cover: Nitrile rubber, Display: PET sheet		
Weight	0.030kg	0.040kg	0.050kg

\*1 The suffix "F" of IP67F is a symbol that indicates protection rate against oil. It is described in the Appendix of Japanese Industrial Standard JIS C 0920.

**CAUTION:**For installing the GOT with the protective cover for oil, the control panel thickness must be 1 to 3mm because of the cover thickness. (Control panel thickness without the cover: 1 to 4mm)

### 3.3 Oil resistance, chemical resistance

The protective cover for oil is made of materials with high oil and chemical resistance so that the cover can be used in various oil and chemical atmospheres. Because oils, including cutting oils, contain a small amount of additives depending on oil products, oil resistance of the cover cannot be stated. Prior to use the cover, test the cover in operating environments, and then check the oil and chemical resistance of the cover.

- Test contents and oil resistance of cover  
The protective cover for oil is soaked in the following oils for 2000 hours, and then oil resistance of the cover is checked.

Oil type	Product	Change in appearance and dimension	Adhesion between cover and sheet	Oil resistance
Water-insoluble cutting oil	Grinding oil (Yushiron oil CL35)	No change	No change	○
Water-soluble cutting oil	Grinding oil (Noritake cool CG-50P)	No change	No change	○

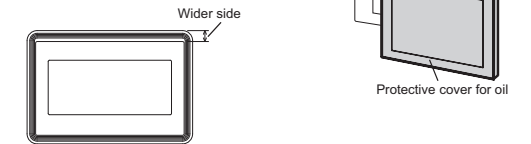
### 4. Installation

#### 4.1 Before attaching protective cover for oil

A protective film is attached on the display area when the GOT is shipped. Make sure to remove the protective film before attaching the protective cover for oil. For attaching the protective cover for oil to the GOT already mounted on the control panel, follow the procedures as below.

- Remove the GOT from the control panel. Make sure to externally shut off all phases of the power supply and remove all cables from the GOT in advance.
- Clean dirt off surfaces of the GOT and control panel.

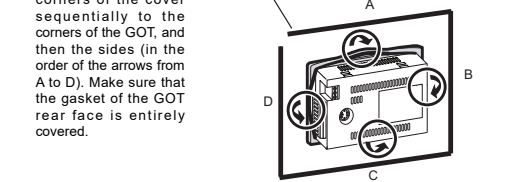
- Prepare the GOT and protective cover for oil, and check the direction of the protective cover for oil. In the case of GT10-30PCO, let the wider side of the under side be located upward.



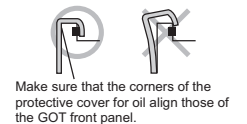
- Stretch one corner of the cover, and fit it to the corner of the GOT front panel. Do not overstretch or overbend the cover. Doing so may cause a separation between the sheet and rubber.



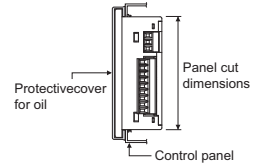
- Starting from one corner, fit the other corners of the cover sequentially to the corners of the GOT, and then the sides (in the order of the arrows from A to D). Make sure that the gasket of the GOT rear face is entirely covered.



To prevent liquid ingress into the control panel, make sure that the gasket is completely covered.



- Mount the GOT onto the control panel.  
When the control panel is dirty, clean the control panel.  
The panel cutting dimensions and mounting screw tightening torque with the protective cover for oil are the same as those without the cover. Mount the GOT onto the control panel by referring to GT10 User's Manual.



- Cautions on installation  
Tighten the mounting screw with the specified torque.

GOT	GT1020, GT1030, GT104□
Tightening torque	0.20 to 0.25 N·m

Undertightening of mounting screws can cause a drop, and deteriorate the waterproof effect and oilproof effect. Overtightening of mounting screws can cause a drop due to damage of the GOT or mounting fixtures, and deteriorate the waterproof effect and oilproof effect.

### 5. Precautions for protective cover for oil

- The protective cover for oil is consumable product.  
Check the cover for scratch, damage or dirt at regular intervals, and replace with new one if necessary.
- Do not push the protective cover for oil with pointed tools, including mechanical pencils and screwdrivers.  
Doing so causes scratches and damages of the cover.
- Do not clean the protective cover for oil with bleaches, thinners, organic solvents, corrosive chemicals, and others.  
Doing so causes changes in shape and color of the cover.
- When the protective cover for oil is attached to the GOT, do not stretch and bend the cover too much.  
Doing so may cause a separation between the sheet and rubber.
- Do not place or use the protective cover for oil in direct sunshine.
- When the protective cover for oil gets dusts, wipe the dusts off with a damp cloth.
- White particles may adhere to the rubber frame of the protective cover for oil, which does not affect the quality of the cover.  
Wipe the frame with a cloth moistened with isopropyl alcohol or ethanol as necessary.
- Do not do a frequent detaching the protective cover for oil. It causes deterioration in the oil performance, and the medicine performance.
- Note that the structure does not guarantee protection in all users' environments. The protective cover for oil may not be used in an environment where it is exposed to oil or chemicals for a long time, or where oil mist fills the air.

This manual confers no industrial property rights or any rights of any other kind, nor does it confer any patent licenses. Mitsubishi Electric Corporation cannot be held responsible for any problems involving industrial property rights which may occur as a result of using the contents noted in this manual.

**Warranty**  
Exclusion of loss in opportunity and secondary loss from warranty liability  
Regardless of the gratis warranty term, Mitsubishi shall not be liable for compensation to:

- Damages caused by any cause found not to be the responsibility of Mitsubishi.
- Loss in opportunity, lost profits incurred to the user by Failures of Mitsubishi products.
- Special damages and secondary damages whether foreseeable or not, compensation for accidents, and compensation for damages to products other than Mitsubishi products.
- Replacement by the user, maintenance of on-site equipment, start-up test run and other tasks.

**For safe use**

- This product has been manufactured as a general-purpose part for general industries, and has not been designed or manufactured to be incorporated in a device or system used in purposes related to human life.
- Before using the product for special purposes such as nuclear power, electric power, aerospace, medicine or passenger movement vehicles, consult with Mitsubishi Electric.
- This product has been manufactured under strict quality control. However when installing the product where major accidents or losses could occur if the product fails, install appropriate backup or failsafe functions in the system.