

MRB-304-BI Molding Pressure Conversion Module Built In Relay Box: Relay Box Handling

This device is a relay box for the molding pressure conversion module MPC-201B-25, enabling use embedded in the mold.

For overall system handling, see the instruction manual for the molding pressure conversion module MPC-201B-25. (Instruction manuals and product specifications can be downloaded from the MinebeaMitsumi website. <https://product.minebeamitsumi.com/product/category/mcd/index.html>)

Handling

- When machining in order to mount the relay box, refer to the dimensions in the figure below as suited to the customer's mold.

Mold side machining dimensions

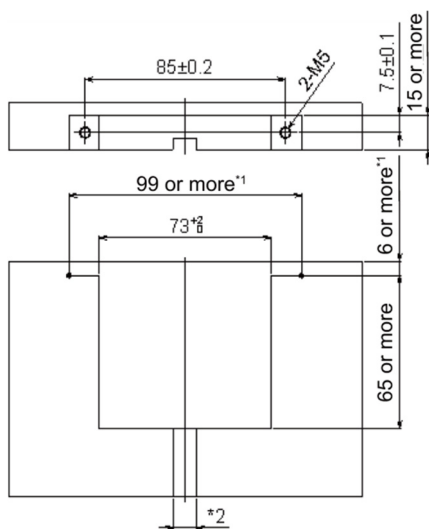
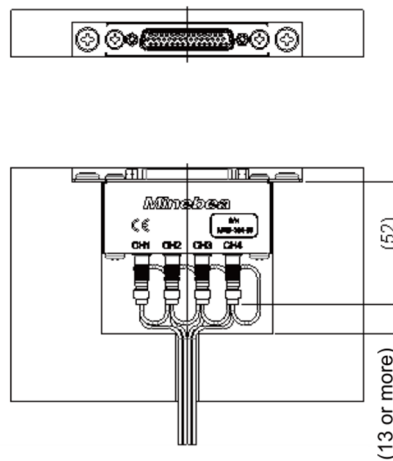


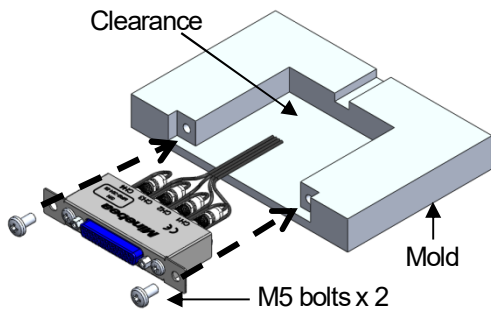
Image of product after fixing



*1 is the dimensions required when matching the D-sub connector upper end face and mold surface level (flush surface).
 For *2, determine the machining dimensions according to the thickness and quantity of sensor cables used.

- The device is embedded in the mold and fixed there with bolts.

Bolt fixing method



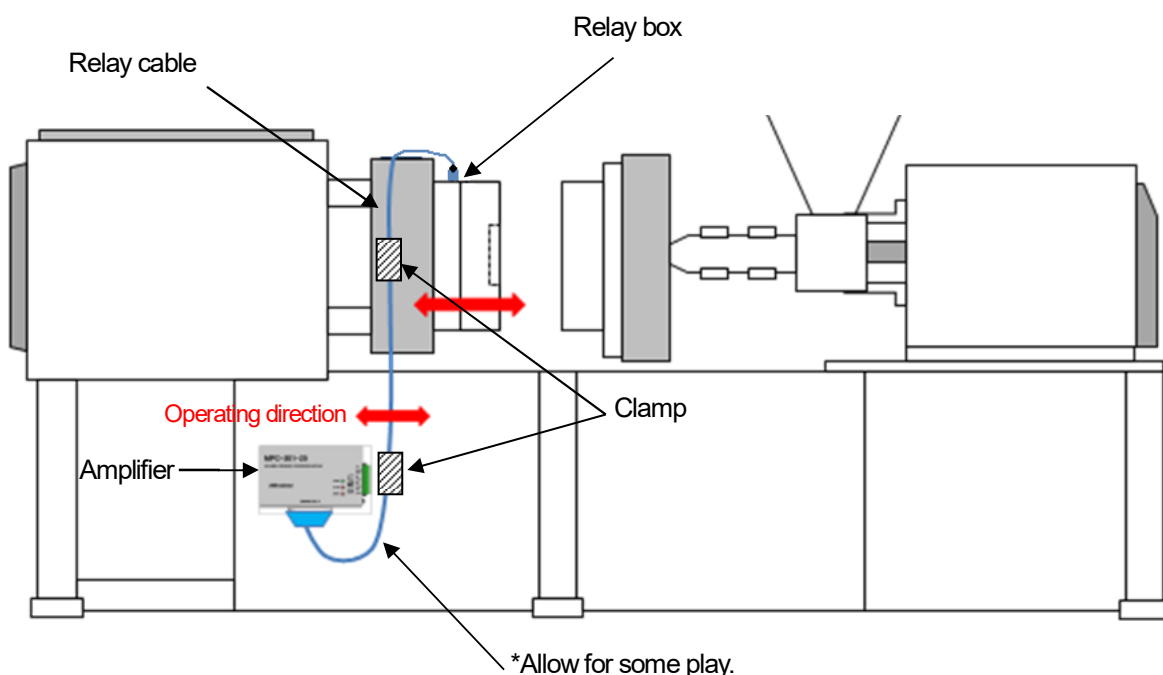
- Using the holes on the right and left of the relay box body, fix with M5 bolts. (M5 tapping is required on the mold mounting surface.)
- Bundle the extra sensor cable length in the clearance space or otherwise store it away.
- M5 bolts are to be prepared by the customer.

Handling Precautions

- Regarding environmental specifications for installing this device, refer to the general specifications and use within their range.
- Be careful not to pinch the sensor cable between the mold and the relay box body.
- When bundling the extra sensor cable length, be careful to remain within its minimum bending radius.
- For the sensor cable minimum bending radius, see the LSMS-S06 and LSMSB product specifications on the MinebeaMitsumi website.

Installation to molding machine (wiring)

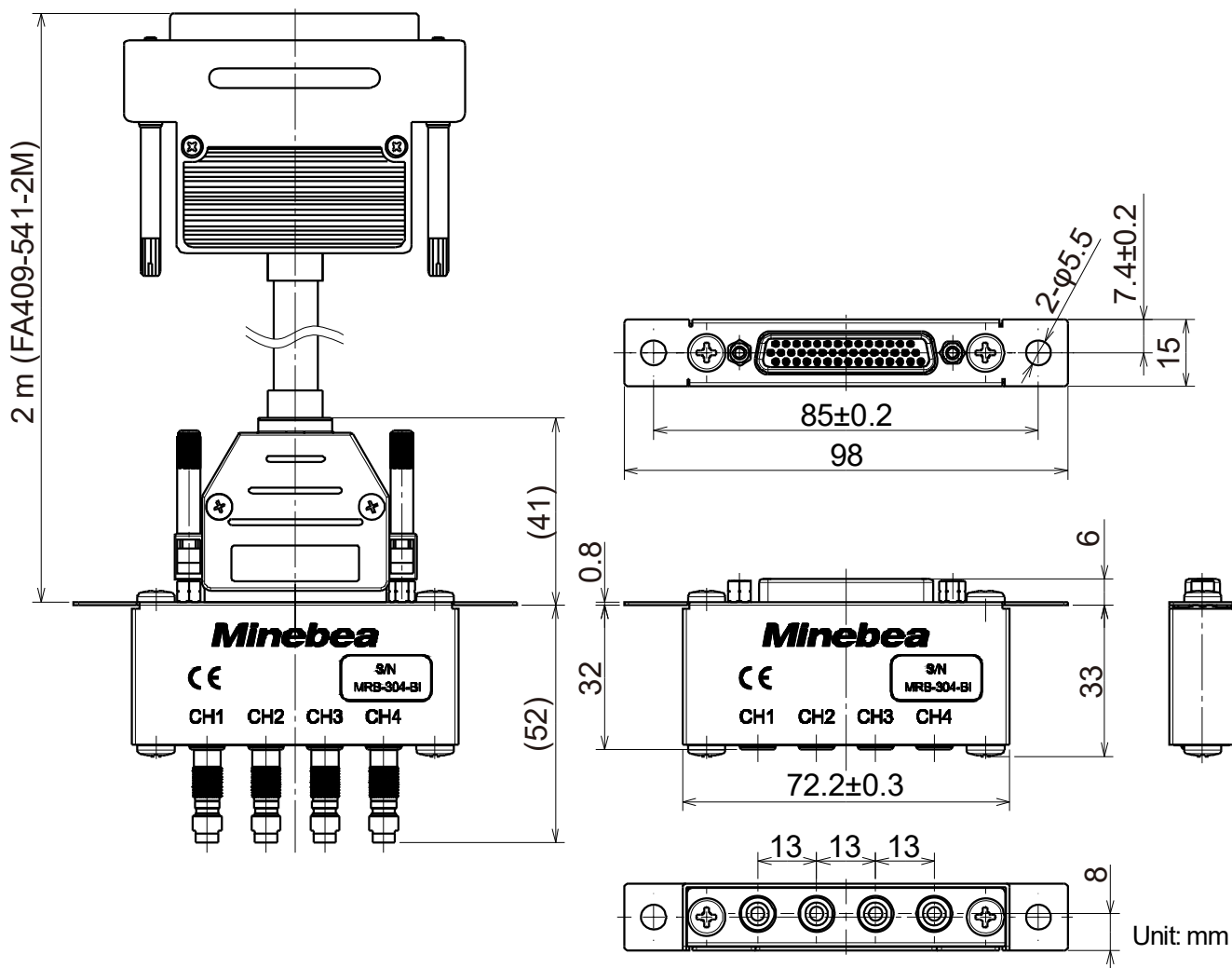
With the layout below as an example, install the amplifier and relay box so that they will not fall out or become disconnected. The amplifier should be installed so that it is within reach, with the LED display visible, on the operating side of the molding machine.



Handling Precautions

- Be sure to allow the relay cable enough play that there will be no load applied to its base even if the mold moves. Do not attach cable clamps near movable parts.
- Lay out the relay cable with enough spare length that there will be no load applied even if the mold moves.
- The relay cable minimum bending radius is 50 mm. To prevent disconnection, use within the minimum bending radius.
- When connecting the relay box and relay cable, fully tighten the screws on the right and left of the D-sub connector.
- The relay cable uses a robot cable, which is a consumable part that may disconnect due to repeated bending. We recommend regular replacement or keeping a spare part available according to the usage frequency.
- Clamp the relay cable within 2 m of the relay box. The cable weight may cause load to be applied to the relay box, leading to deformation, etc.
- Lay out the sensor cable and relay cable so that they are not snagged or pulled when the mold moves. Bundle the extra cable length as needed.

External Dimensions



General specifications

- Operating temperature and humidity ranges
 - Temperature 0°C to 100°C
 - Humidity 85% RH or below (no condensation)
- Storage temperature -10°C to 100°C
- Vibration resistance 10 Hz to 55 Hz Double amplitude 1.5 mm 2 hours each in X, Y, and Z directions
- External dimensions (W x H x D) 98 mm x 14.8 mm x 39.1 mm (not including protrusions)
- Weight Approx. 80 g
- Case material SUS304
- Applicable converters LSMS-S06 Series, LSMSB Series Up to 4 units can be connected
- Applicable amplifiers MPC-201-25, MPC-201B-25
- Applicable standards EN61326-1:2013 “Electrical equipment for measurement, control and laboratory use - EMC requirements”
 “Immunity requirements for equipment intended for use in industrial locations”
 RoHS compliant

●The contents of this manual may subject to change without notice.

HEAD QUARTER: **MinebeaMitsumi Inc.**

4106-73 Miyota, Miyota-machi, Kitasaku gun, Nagano-ken 389-0293 Japan
Tel: +81-267-32-2200 Fax: +81-267-31-1350

Sensing Device Product Sales Management:

1-1-1, Katase, Fujisawa-shi, Kanagawa-ken, 251-8531 Japan
Tel: +81-466-23-2681 Fax: +81-466-22-7191

Sensing Device Business Unit

FUJISAWA PLANT 1-1-1, Katase, Fujisawa-shi, Kanagawa-ken, 251-8531 Japan
Tel: +81-466-22-7151 Fax: +81-466-22-1701

KARUIZAWA PLANT 4106-73 Miyota, Miyota-machi, Kitasaku gun, Nagano-ken 389-0293 Japan
Tel: +81-267-31-1309 Fax: +81-267-31-1353

HOME PAGE ADDRESS <http://www.minebea-mcd.com>