SG, SH SERIES

Exclusive lineup for BS (building system)/PA (process automation)
We strive to create products that are not only innovative but help to maintain the harmony between people and industry.

We have been accumulating experiences in the measurement and control fields for over a half-century and playing a significant role in supporting our affluent society. Especially in the control field, we take pride in having supported various industries for a long period of time.

We contribute to the future by providing our high-quality services and environmental conservation activities.

In addition to the know-how we have developed over many years, we aim to contribute to the future society through activities such as established quality control system (received ISO9001 certification) to guarantee customer satisfaction as well as improvement of the global environment to be able to realize our coexistence with society [received ISO4001 certification (HQ only)].

**SHINKO TECHNOS CO., LTD.**

Established in 1945 as an electrical switchboard instrument manufacturer (in Yodogawa-ku, Osaka-city). Having manufactured and sold temperature control equipment for industrial use for over 70 years.

**Product Line**

Various types of indicating controllers, programmable controllers
Environment measuring instruments, thermocouples, RTDs
Signal conditioners, recorders, indicators
Temperature control boards, etc.

**Company History**

1945 Sadao Kitagawa established Shinko Electric Instrument Works, Ltd. in Yodogawa-ku, Osaka-city.

1949 Started to manufacture electrical switchboard instruments.

1953 Incorporated and officially named Shinko Electric Instrument Co., Ltd.

1953 Developed and started to manufacture electron tube type automatic temperature controllers.

1960 Developed and started to manufacture transistor type automatic temperature controllers.

1961 Head office and factory completed in Minoo-city, Osaka.

1968 Sanda factory completed in Sanda-city, Hyogo.

1973 Fukuoka factory completed in Mii-gun, Fukuoka.

1980 Developed microcomputer based temperature controller, became a pioneer of the industry.

1985 Tokushima factory completed in Oe-gun, Tokushima (Currently, Yoshinogawa-city, Tokushima).

1991 Changed company name to SHINKO TECHNOS CO., LTD.

2005 Moved head office to Senbahigashi, Minoo-city, Osaka.

**Transition of Converters**

2005 Signal conditioners for industrial use SA series released

2005 Small-sized signal conditioners for industrial use SB series released

2010 Plug-in type signal conditioners SE, SF series released

2015 New plug-in signal conditioners SG, SH series released
Features Common to All Series

- PC Setting Possible
  Booting up the equipment is easier with a computer via USB bus power.

- Compatible Design
  Space-saving, Compatible design
  - Depth is shortened by 15 mm (compared to market standard).
  - Sufficient load resistance, Output impedance 750 Ω for both 1-output and 2-outputs.
  - Built-in shunt resistor or externally mounted shunt resistor is selectable.
  - 2-wire transmitter can be connected.

- Options
  Various option settings
  - Multi-rotation trimmer
  - Allowance of adjustment width enables fine adjustment.
  - Coatings are available.
  - This can be used when environmental countermeasures need to be taken.

- Worldwide Power Supply
  All products support 85 to 264 V AC.

- Close Contact Mounting Possible.
  All products can be mounted in close contact.

- Prompt Delivery System
  Standard style can be delivered on the following day. (excluding a part of products)

Standard Features for Multi, Air-Conditioning Control, Alarm, Link Series

- Display Pattern
  The industry’s first!
  Built-in white LED backlight liquid crystal display modes are available to meet customer needs.

  11-segments display (alphanumeric characters can be used.)
  Mounted in a dark panel, the display is easily seen.
  Multi, Air-conditioning control, Link Series: Up to 13 display modes and up to 12 alarm types are available.
  Auto lights-out is also available.

- Multifunctional
  Manual setting mode, Lock, Custom functions
  Startup adjustment function (manual setting mode), display lock function, custom display (8 digits for upper and lower) are provided.
### MATRIX

#### MULTI

<table>
<thead>
<tr>
<th>Signal Conditioner Type</th>
<th>Input Type</th>
<th>Output Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isolator</td>
<td>4 to 20 mA, 1 to 5 V</td>
<td>4 to 20 mA, 1 to 5 V</td>
</tr>
<tr>
<td>DC Signal Transmitter</td>
<td>Current, voltage input</td>
<td>Current, voltage output</td>
</tr>
<tr>
<td>Current Loop Supply</td>
<td>4 to 20 mA</td>
<td>Current, voltage output</td>
</tr>
<tr>
<td>Current Loop Supply with ratio setting</td>
<td>4 to 20 mA</td>
<td>Current, voltage output</td>
</tr>
<tr>
<td>Thermocouple Transmitter</td>
<td>Thermocouple input</td>
<td>Current, voltage output</td>
</tr>
<tr>
<td>RTD Transmitter</td>
<td>RTD input</td>
<td>Current, voltage output</td>
</tr>
<tr>
<td>Potentiometer Transmitter</td>
<td>Potentiometer input</td>
<td>Current, voltage output</td>
</tr>
<tr>
<td>Universal Transmitter</td>
<td>Current, voltage input</td>
<td>Current, voltage output</td>
</tr>
<tr>
<td>Linearizer</td>
<td>Current, voltage input</td>
<td>Current, voltage output</td>
</tr>
<tr>
<td>Pulse Transmitter</td>
<td>Pulse input</td>
<td>Various pulse outputs</td>
</tr>
<tr>
<td>Pulse-Analog Transmitter</td>
<td>Pulse input</td>
<td>Current, voltage output</td>
</tr>
<tr>
<td>Differential Transmitter</td>
<td>Thermocouple, RTD input *</td>
<td>Current, voltage output</td>
</tr>
<tr>
<td>2-Input Math Function Transmitter</td>
<td>Current, voltage input *</td>
<td>Current, voltage output</td>
</tr>
</tbody>
</table>

#### STANDARD

<table>
<thead>
<tr>
<th>Signal Conditioner Type</th>
<th>Input Type</th>
<th>Output Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Output</td>
<td>1-Output</td>
<td></td>
</tr>
<tr>
<td>2-Outputs</td>
<td>2-Outputs</td>
<td></td>
</tr>
</tbody>
</table>

![Serial communication RS-485 output can be equipped.]

### AIR-CONDITIONING CONTROL

<table>
<thead>
<tr>
<th>Signal Conditioner Type</th>
<th>Input Type</th>
<th>Output Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>High/Low Selector</td>
<td>Current, voltage input *</td>
<td>Current, voltage output</td>
</tr>
<tr>
<td>Ratio Transmitter (Ratio, bias)</td>
<td>Current, voltage input</td>
<td>Current, voltage output</td>
</tr>
<tr>
<td>Split-Range Transmitter</td>
<td>Current, voltage input</td>
<td>Current, voltage output</td>
</tr>
<tr>
<td>Limiter</td>
<td>Current, voltage input</td>
<td>Current, voltage output</td>
</tr>
</tbody>
</table>

*1: Input 1 and Input 2 are the same input type.
*2: Output 1 and Output 2 are the same output type.

![Serial communication RS-485 output can be equipped.]

### ALARM

<table>
<thead>
<tr>
<th>Signal Conditioner Type</th>
<th>Input Type</th>
<th>Output Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentation Signal Input Alarm Setter (4 to 20 mA, 1 to 5 V only)</td>
<td>4 to 20 mA, 1 to 5 V</td>
<td>Relay output a or b contact selectable</td>
</tr>
<tr>
<td>Universal Input Alarm Setter</td>
<td>Current, voltage input, RTD, Thermocouple input</td>
<td>Relay output a or b contact selectable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2-Outputs</th>
<th>4-Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>![ ]</td>
<td>![ ]</td>
</tr>
</tbody>
</table>
The Industry’s First! White Backlight Liquid Crystal

Input and output displays can be easily checked in the control panel. 11-segments display (Alphanumeric characters can be used.)

Simple and Multifunctional Products Lineup

- Current Loop Supply (as power source for 2-wire transmitter)
  With one product, ratio setting (up to x10) * and square root extraction can be executed.
  (This supports 2-wire transmitter)
  *This is in case of the current loop supply having the ratio setting function.
  For 2-output types, ratio and limiter settings are available. (Refer to the next page.)

- Pulse Transmitter (Various pulses can be set by one device.)
  One device handles each setting of the pulse frequency range (mHz, Ultra-low frequency,
  Hz, Low frequency, kHz, Frequency) and pulse division. After our product is purchased, the
  frequency range and frequency settings can be changed to meet the demands of the work site.
  (When ordering, the specification needs to be designated.)

- Universal Input Transmitter
  (Various signals can be handled by one device.)
  One device handles input of current, voltage, thermocouple and RTD.
  Input and output are changeable, so this product is perfect for inventory or for being brought to the work site.

- Differential Transmitter
  (Temperature differences can be handled by one device.)
  One device handles calculations and data output of temperature differences from two
  temperature sensors. This can be used for temperature differences between the inside and outside control
  panels, or temperature differences at the equipment gateway.

- 2:2-Input Math Function Transmitter
  (All calculations are handled by one unit.)
  One device handles arithmetical operations and arithmetic expressions.
  Calculations can be conducted by combining this product with the differential transmitter.

- Linearizer (Exclusive software is available.)
  Multiple points can be set by a PC or key operation on the main unit.
  (Can be specified as factory default setting.)
  Conventionally, all correction points were set at the factory, and there was a difficulty in
  re-adjustment and change after delivery.

Direct Setting Mode

In the transmitter with the ratio setting function, in addition to settings using normal computing equations, ratio and bias value can be set by merely setting input and output values. Even when this product needs to be used on site immediately, settings can be made easily. Regular ratio and bias value settings are also available.

Various Display Settings (Up to 13 kinds of display mode)

[Model Display, 6 RUN Displays, 4 Custom Displays, 2 Unit Displays are available. (Each display can be registered as a Default Display.)]

Direct Display (input value) for All Products.

Scaling initial value is set based on the input range. (e.g. 4mA to 20mA for 4 to 20mA input) Arbitrary scaling setting can also be made. Scaling indication suitable for your use is possible.

Flagship Model
Pursuit of multi-functions and usability

Com·bi
MULTI SERIES

MULTI SERIES

Transmitter types need to be specified prior to factory shipment.
Manual Setting Mode (Equipped for all MULTI series products)

The most suitable for communication confirmation (loop check) with the host after installation.

- Temperature/humidity sensor
- Rate of flow, fluid level, pressure gauge: 4 to 20 mA
- No sensor output change is required.
- Only Output 1, Output 2 can be changed!

Current Loop Supply with Ratio Setting

Ratio setting + Limiter functions (Ratio transmitter with ratio, bias setting)

Output suitable for the input device can be set.

MULTI SERIES  23 Types in Total (Plentiful Lineup)

- Isolator (1-output): SGI
- Isolator (2-outputs): SGiW
- DC Signal Transmitter (1-output): SGS
- DC Signal Transmitter (2-outputs): SGSW
- Current Loop Supply (1-output): SGD
- Current Loop Supply (2-outputs): SGDW
- Current Loop Supply with ratio setting (1-output): SGM
- Current Loop Supply with ratio setting (2-outputs): SGMW
- Thermocouple Transmitter (1-output): SGT
- Thermocouple Transmitter (2-outputs): SGTW
- RTD Transmitter (1-output): SGR
- RTD Transmitter (2-outputs): SGRW
- Potentiometer Transmitter (1-output): SGP
- Potentiometer Transmitter (2-outputs): SGPW
- Universal Transmitter (1-output): SGU
- Universal Transmitter (2-outputs): SGUW
- Linearizer (1-output): SGL
- Pulse Transmitter (1-output): SGF
- Pulse Transmitter (2-outputs): SGFW
- Pulse-Analyzer Transmitter (1-output): SGI
- Pulse-Analyzer Transmitter (2-outputs): SGIW
- Differential Transmitter (1-output): SGQ
- 2-Input Math Function Transmitter (1-output): SGZ
**Easier Start-up via PC Settings (Loader Terminal Equipped)**

Being connected to a computer through a special cable, this product starts up via USB bus power and simplifies making setting changes.

Exclusive setting software is available.

The software can be downloaded from Shinko website for free.

**Space-Saving, Compatible Design**

- Depth is shortened by 15 mm (compared to the market standard).
- Sufficient load resistance: Output impedance 750 Ω for both 1-output and 2-outputs.
- Built-in shunt resistor or externally mounted shunt resistor is selectable.
- 2-wire transmitter can be connected.

**Various Option Settings**

- Multi-rotation trimmer
  - Allowance of adjustment width enables fine adjustment.

- Coatings are available.
  - This can be used when environmental countermeasures need to be taken.

Standard models can be delivered on the following day (excluding a part of products).

**85 to 264V AC for All Products**

**All Products in Close Contact Mounting**

Transmitter types need to be specified prior to factory shipment.
Current Loop Supply

- Supplies power to the two-wire transmitter. The 4 to 20 mA input is isolated, and current or voltage is output.
- 1-output and 2-output types are available. Output impedance: 750 Ω
- This supports the ‘SMART’ transmitter for sensor.
- Output filter time constant, square root extraction can be changed by the PC setting.

RTD Transmitter

- RTD input is isolated, and current or voltage is output.
- 1-output and 2-output types are available. Output impedance: 750 Ω
- Input type, temperature range, and output can be changed by the PC setting.

Isolator

- 4 to 20 mA or 1 to 5 V input is isolated, and 4 to 20 mA or 1 to 5 V is output.
- 1-output and 2-output types are available. Output impedance: 750 Ω
- Input and output can be changed by the PC setting.

Standard SERIES 12 Types in Total

- Isolator (1-output): SHI
- Isolator (2-outputs): SHIW
- DC Signal Transmitter (1-output): SHS
- DC Signal Transmitter (2-outputs): SHSW
- Current Loop Supply (1-output): SHD
- Current Loop Supply (2-outputs): SHDW
- Thermocouple Transmitter (1-output): SHT
- Thermocouple Transmitter (2-outputs): SHTW
- RTD Transmitter (1-output): SHR
- RTD Transmitter (2-outputs): SHRW
- Potentiometer Transmitter (1-output): SHP
- Potentiometer Transmitter (2-outputs): SHPW

Thermocouple Transmitter

- Various thermocouple inputs are isolated, and current or voltage is output.
- 1-output and 2-output types are available. Output impedance: 750 Ω
- Thermocouple type, temperature range, and output type can be changed by the PC setting.
- Cold junction compensation circuit is provided to the terminal section for accuracy improvement.

Potentiometer Transmitter

- Various potentiometer inputs are isolated, and current or voltage is output.
- 1-output and 2-output types are available. Output impedance: 750 Ω
- Output can be changed by the PC setting.

DC Signal Transmitter

- Current or voltage input is isolated, and current or voltage is output.
- 1-output and 2-output types are available. Output impedance: 750 Ω
- Input and output can be changed by the PC setting.
High/Low Selector  2-inputs 1-output

Input value for Ch1 and Ch2 and output value can be checked. High/Low input value can be specified, but High/Low can be changed after purchase.

Split-Range Transmitter  1-input 2-outputs

One unit handles V or Parallel characteristics which is required for air-conditioning control. Input value, Output 1 value and Output 2 value can be checked.

Ratio Transmitter (Ratio, Bias)  1-input 1-output  1-input 2-outputs

- Ratio setting (x 10 times) (e.g.) Input 2 mA can be changed to 20 mA. This is an adjustment function useful for a case that an output value does not match the range of the host. Ratio setting and limiter function are equipped with the output type, which enables a wide range of adjustments of output suitable for each input device.
- Normally, arithmetic expression is used for setting ratio and bias values. This product is equipped with the direct setting mode useful for making adjustments on the work site. Refer to the next page.

Limiter  1-input 1-output  1-input 2-outputs

Output can be controlled at an arbitrarily set value for upper limit and lower limit. Display of input value, Output 1 value and Output 2 value (2-outputs) can be confirmed.

Current Loop Supply (24 V DC power source)  1-input 1-output  1-input 2-outputs

This can be used as power source for a 2-wire transmitter and as an isolator. This is lined up in other series as a current loop supply as follows.

- MULTI series (Display, Multifunctional)
- Standard series (No display)
- Current loop supply with ratio setting (equipped with ratio, bias function) is also lined up

Isolator, RTD transmitter, potentiometer transmitter, etc. are also lined up in the MULTI series and the Standard series.

Products necessary for air-conditioning control are lined up in the MULTI series.

Com-bl

AIR-CONDITIONING CONTROL SERIES

AIR-CONDITIONING CONTROL SERIES  Transmitter types need to be specified prior to factory shipment.
3 Functions Useful for On-Site Adjustments

Manual Setting Mode (for all products)
The most suitable for communication confirmation (loop check) with the host after installation.

Temperature/humidity sensor
Rate of flow, fluid level, pressure gauge: 4 to 20 mA
No sensor output change is required.

Output 1
Output 2
DCS
PLC

Simple Operation
Enter the setting mode by pressing the key for 3 sec. Output can be changed with the or key.

Auto Return Function
To prevent forgetting to switch to automatic operation, time can be set to return to automatic operation (Default Display). (Factory default: 30 minutes)

Direct Setting Mode (Ratio transmitter with ratio, bias setting)
This mode is the most suitable for on-site adjustments.
This function enables the setting equivalent to the ratio and bias input by inputting input/output values. Normally, calculating operation formula is required, but with this direct setting mode, adjustment on the site can be quickly made.
Normal ratio and bias value can also be input.

Ratio Setting and Limiter Functions (Ratio transmitter with ratio, bias setting)
Output suitable for the input device can be set.

Air-Conditioning Control Series  6 Types in Total
- High/Low Selector (1-output): SGH
- Ratio Transmitter (ratio, bias) (1-output): SGB
- Ratio Transmitter (ratio, bias) (2-outputs): SGBW
- Split-Range Transmitter (2-outputs): SGXW
- Limiter (1-output): SGC
- Limiter (2-outputs): SGCW
Relay Output Equipped (2-outputs/4-outputs)

- Both a contact and b contact output type are available.
- 4-outputs type in the same case is also available.
- The case is same with other series, so this product simplifies to keep balance in the panel.
- The c contact output type will be available soon.

Easier Start-up for All Products via PC settings (Loader terminal equipped)

- Being connected to a PC through a special cable, this product starts up with USB bus power, and simplifies making setting changes.
- Exclusive setting software is available.
  
  The software can be downloaded from Shinko website for free.

Screen Exclusive for Changing Set Values (Alarm 1 to Alarm 4 can be selected.)

- An alarm value can be changed easily.
- Lock function can be selected. (Refer to the next page)

Easy-to-Use Key Layout

- For the alarm series, operability was considered.
  
  The SHIFT key (key) is provided to improve operability.

Manual Test Mode

- Relay outputs for Alarm 1 to Alarm 4 can be easily switched ON/OFF.
  This function is useful for checking connection after installation.
  Without changing the sensor input, relay operation can be checked.

  This is the same procedure for Manual setting mode of the MULTI series, but the operation differs.

Auto Return Function

- Time can be set to return to automatic operation (Default Display) to eliminate operator’s forgetting to switch to automatic operation. (Factory default: 30 minutes)

Transmitter types need to be specified prior to factory shipment.
Versatile Display Patterns (2-outputs: 9 types, 4-outputs: 12 types)

Display Patterns (2-outputs type)

Model Display
Model confirmation can be made with 8 digits (upper and lower). Lower digits are automatically changed when changing the input type (excluding option setting).

Default Display
Registering and changing the Default Display can be easily done. The screen returns to the set Default Display when returning from setting mode.

RUN Display
The 2-outputs type can be selected from 3 screens. The 4-outputs type can be selected from 5 screens. The screen can be switched to the Alarm value priority change screen from this screen.

Alarm Display
Alarm 1 and Alarm 2 values are indicated. Reverses displays with the UP key. For 4-outputs, Alarm 3 and Alarm 4 display are added.

Alarm Value Changing Display
Press the SET key on the screens surrounded with a green dotted line, then the screen moves to the Alarm value priority change screen. Lock for Alarm value setting is available.

Exclusive lock level (exclusive for alarm series)
Selectable from the following 3 types. Unlock, Locks all set values, Locks all set values except alarm value

2 Custom Displays
Eight digits can be freely set. (Select from alphanumeric characters and symbols.) Screen suitable for the work site can be made by using "numbers, machine number, unit and symbol." Input value can be displayed on the upper section.

2 Unit Displays

Alarm Series 4 Types in Total

- Instrumentation signal input alarm setter (4 to 20 mA, 1 to 5 V only) (2-outputs): SGAL
- Instrumentation signal input alarm setter (4 to 20 mA, 1 to 5 V only) (4-outputs): SGAL
- Universal input alarm setter (2-outputs): SGAU
- Universal input alarm setter (4-outputs): SGAU

Instrumentation signal input alarm setter
Exclusive for 4 to 20 mA and 1 to 5 V inputs. The a contact and b contact are available. The c contact output type will be added soon.

Universal input alarm setter
One unit can handle input of current, voltage, thermocouple and RTD. The a contact and b contact are available. The c contact output type will be added soon.
Equipped with RS-485 Output Terminal (MODBUS RTU)

Can be built in the MULTI series 1-output type

- **Wiring man-hour**: Only one wiring with the host.
- **Digital conversion**: Various inputs such as analog and temperature can be converted to digital.
- **D/A conversion**: Calculation results in the PLC can be output in analog.

**PLC Interface Unit is Available. Model: SIF-600, T2829**

One unit can handle communication settings for multiple units (up to 31 units). Software for each PLC setting is available. CC-Link unit (to be released soon)

Application example:

- **DCS**
- **PLC**
- **D/A converter is not needed.**
- **Analog control devices including valve and pump**
- **Sensor, temperature, potentiometer, etc.**
- **Flow rate, fluid level, pressure gauge**

**LINK SERIES**

Transmitter types need to be specified prior to factory shipment.
### PLC Interface Unit

**SIF-600, T2829**

**Corresponding PLC**
- Made by Mitsubishi Electric Corporation: MELSEC Q series, QnA series (only corresponding to Q command), MELSEC FX series (only corresponding to Q command)
- Made by Omron Corporation: CI/CS/CP series
- Made by Keyence Corporation: VK series
- Made by Yokogawa Electric Corporation: FA-M3 series
- Made by Fuji Electric Co., Ltd.: MICREX-5X series

**Power supply voltage (Specify)**
- 100 to 240 V AC 50/60 Hz
- 24 V AC/DC 50/60 Hz
- Allowable fluctuation range: 85 to 264 V AC
- Allowable fluctuation range: 20 to 28 V AD/DC

**Insulation resistance**
- 10 MΩ or more, at 500 V DC

**Dielectric strength**
- Between power terminal and communication (LOCAL) terminal: 1.5 kV AC for 1 minute
- Between power terminal and communication (PLC) terminal: 1.5 kV AC for 1 minute
- Between communication (PLC) terminal and communication (LOCAL) terminal: 1.5 kV AC for 1 minute

**Ambient temperature/humidity**
- Ambient temperature: 0 to 50°C, Ambient humidity: 35 to 85%RH (non-condensing)

**Power consumption**
- Approx. 7 VA

**Mounting method**
- DIN rail

**Dimensions/Weight**
- Dimensions: W30 x H88 x D108 mm (including a socket)
- Weight: Approx. 180 g (including a socket)

**Accessories included**
- Socket: ASK-002-1 (for ring-type terminals), Communication cable CPP 0.1 m

**Accessories sold separately**
- USB communication cable CMB-001

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### Serial Communication

#### Models with RS-485 Output Terminal

<table>
<thead>
<tr>
<th>Product name</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isolator</td>
<td>SGEL-1/2/4/6</td>
</tr>
<tr>
<td>DC Signal Transmitter</td>
<td>SGDL-0/1/2/3/4</td>
</tr>
<tr>
<td>Current Loop Supply</td>
<td>SGDL-0/1/2/3/4</td>
</tr>
<tr>
<td>Current Loop Supply with ratio setting</td>
<td>SGML-0/1/2/3/4</td>
</tr>
<tr>
<td>Thermocouple Transmitter</td>
<td>SGCL-0/1/2/3/4</td>
</tr>
<tr>
<td>RTD Transmitter</td>
<td>SGRL-0/1/2/3/4</td>
</tr>
<tr>
<td>Potentiometer Transmitter</td>
<td>SGPL-PM-2/3/4/5/6</td>
</tr>
<tr>
<td>Universal Transmitter</td>
<td>SGUL-2/3/4/5/6</td>
</tr>
<tr>
<td>Lineraror</td>
<td>SGEL-0/1/2/3/4</td>
</tr>
<tr>
<td>Pulse Transmitter</td>
<td>SGEL-0/1/2/3/4</td>
</tr>
<tr>
<td>Pulse-Analog Transmitter</td>
<td>SGEL-0/1/2/3/4</td>
</tr>
<tr>
<td>Ratio Transmitter (ratio, bias)</td>
<td>SGBL-0/1/2/3/4/5/6</td>
</tr>
<tr>
<td>Limiter</td>
<td>SGCL-0/1/2/3/4</td>
</tr>
</tbody>
</table>

Contact us for type 1, 2, and 4.

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When adding serial communication, RS-485 output terminal is equipped to the bottom surface of the main body.

**Bottom surface of the main body**

**Modular jack pin arrangement**

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CMB-001 is needed for initial setup.