

# FC SERIES AUTO-SELECTOR

DATA SHEET

PRJ

The FC series auto-selector accepts 2 or 3 input signals. With 2 input signals, it transmits either the greater or smaller one of the input signals as an output signal; with 3 input signals, the greater one of the two smaller inputs and the remaining one input. This instrument also functions as a signal limiter by transmitting any one of the input signals from the builtin setting unit.

## SPECIFICATIONS

### Input signal and input resistance:

1 to 5V DC (bias current: less than  $1\mu\text{A}$ )

Note: In the case of power interruption; more than  $33\text{k}\Omega$ .

Input circuit can be opened during power OFF upon request

4 to 20mA DC ( $250\Omega$ )

### Limit value setting:

Built-in potentiometer setting (in the case of signal limiter, upper limit, lower limit, or upper and lower limits)

Allowance:  $\pm 0.5\%$  of full span

$\pm 0.25\%$  of full span is also available on request.

Reproducibility: Better than  $\pm 0.1\%$

Output signal: 1 to 5V DC

Output resistance:

$0.5\Omega$  or less

Response time: 0.1 sec or less (input part equipped with 33 msec filter)

Power supply: 24V DC (20 to 30V DC) or

$24\text{V}^{+13\%}_{-10\%}$  50/60 Hz

Power consumption:

Approx. 1.5W (24V DC)

Approx. 3VA (24V AC)

Ambient temperature:

0 to  $45^\circ\text{C}$

Ambient humidity:

90% RH (MAX)

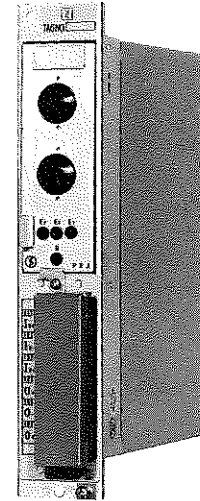
Enclosure: Steel case

Dimensions (HxWxD):

247x44x225 mm

Weight:

Approx. 0.9kg

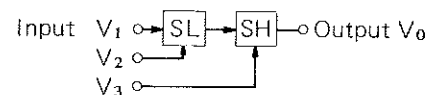


Finish color: Case; Silver (melamine baking)  
Terminal cover; Gray (molded synthetic resin)

Mounting method:  
Rack mounting

Range of delivery:  
Auto-selector

### Three-input auto-selector explanatory diagram



$V_0 = V_1$  (where  $V_2 > V_1 > V_3$ )

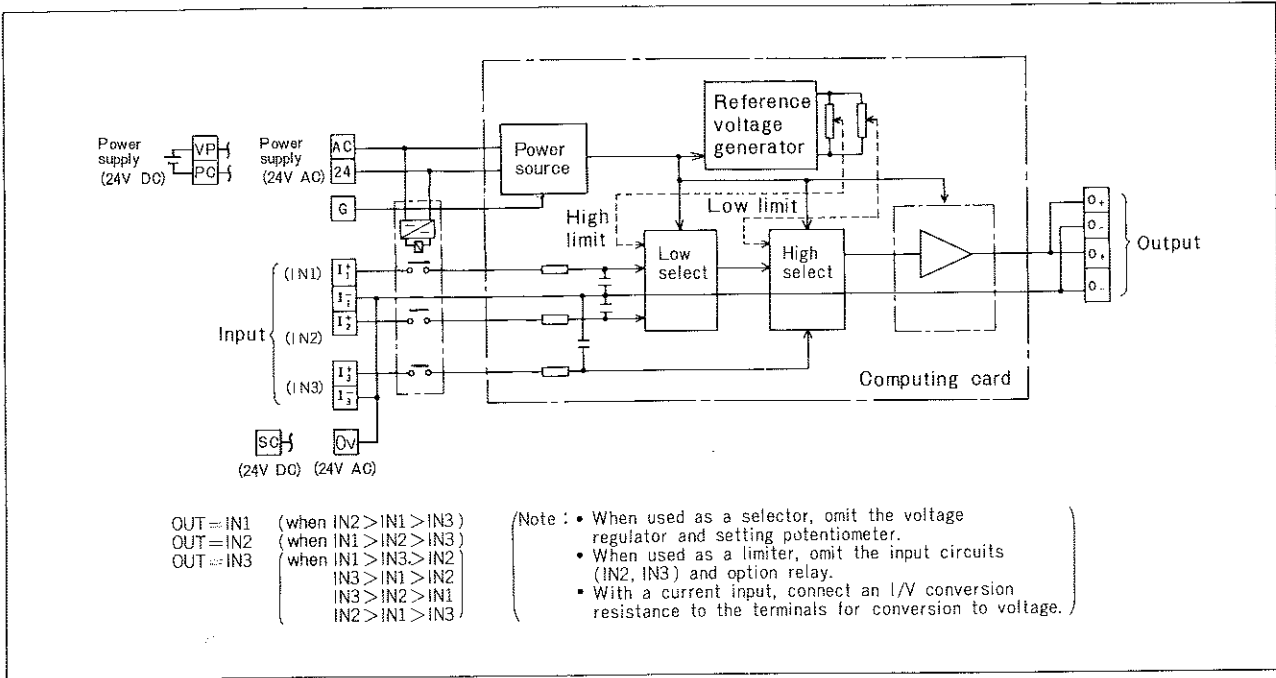
$V_0 = V_2$  (where  $V_1 > V_2 > V_3$ )

$V_0 = V_3$  (where  $V_1 > V_3 > V_2$ )  
 $V_2 > V_3 > V_1$   
 $V_3 > V_1 > V_2$   
 $V_3 > V_2 > V_1$

SL: Low select function

SH: High select function

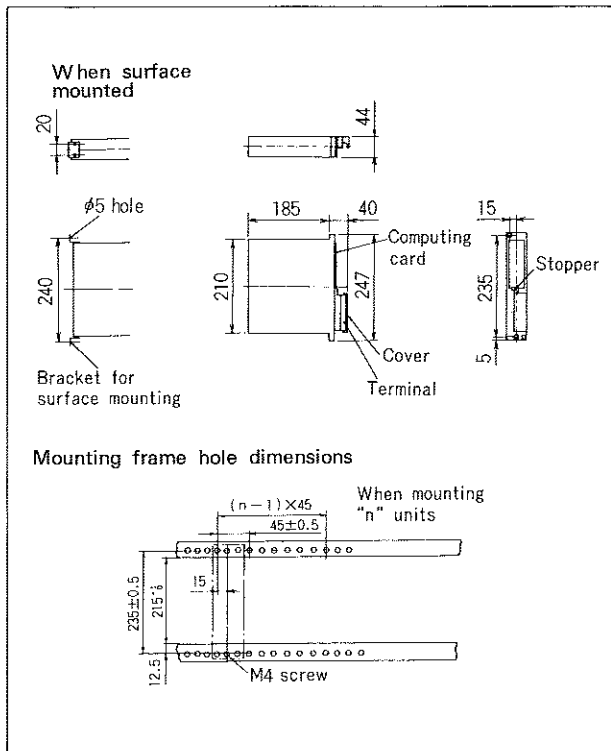
# BASIC CIRCUIT DIAGRAM



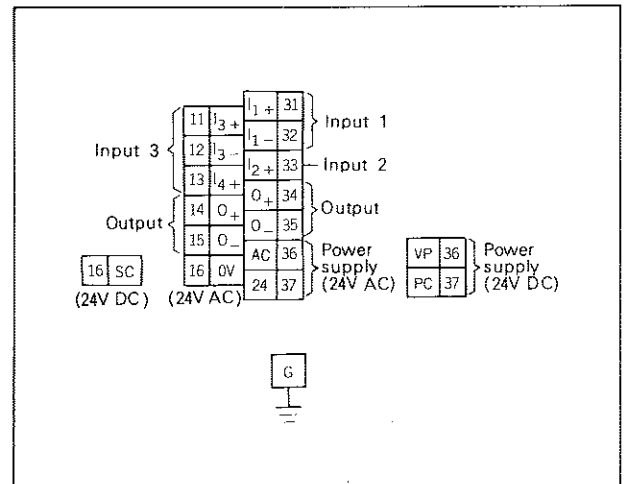
# CODE SYMBOLS

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | Description   |
|---|---|---|---|---|---|---|---|---|----|----|----|----|---|
| P | R | J |   |   | 0 | 5 |   | 0 | 0  |    |    |    | Input signal  |
|   |   |   | 1 |   |   |   |   |   |    |    |    |    | 1 to 5V DC  |
|   |   |   | 2 |   |   |   |   |   |    |    |    |    | 4 to 20mA DC  |
|   |   |   | 4 |   |   |   |   |   |    |    |    |    | 1 to 5V DC with option relay                        |
|   |   |   | 5 |   |   |   |   |   |    |    |    |    | 4 to 20mA DC with option relay                      |
|   |   |   | L |   |   |   |   |   |    |    |    |    | Function  |
|   |   |   | S |   |   |   |   |   |    |    |    |    | Limiter (setting signal contained)                  |
|   |   |   |   |   |   |   |   |   |    |    |    |    | Selector  |
|   |   |   | H |   |   |   |   |   |    |    |    |    | Selector and limiter specifications                 |
|   |   |   | L |   |   |   |   |   |    |    |    |    | High select or high limit                           |
|   |   |   | K |   |   |   |   |   |    |    |    |    | Low select or low limit                             |
|   |   |   |   |   |   |   |   |   |    |    |    |    | Low-high select or low-high limit                   |
|   |   |   |   |   |   |   |   |   |    |    |    |    | Allowance   |
|   |   |   |   |   |   |   |   |   |    |    |    |    | 1 ±0.5%   |
|   |   |   |   |   |   |   |   |   |    |    |    |    | 2 ±0.25%  |
|   |   |   |   |   |   |   |   |   |    |    |    |    | Application   |
|   |   |   |   |   |   |   |   |   |    |    |    |    | 0 General use                                       |
|   |   |   |   |   |   |   |   |   |    |    |    |    | Connection with controller                          |
|   |   |   |   |   |   |   |   |   |    |    |    |    | Y For general calculations                          |
|   |   |   |   |   |   |   |   |   |    |    |    |    | C For controller output limiter or selector control |
|   |   |   |   |   |   |   |   |   |    |    |    |    | Power supply  |
|   |   |   |   |   |   |   |   |   |    |    |    |    | 1 24V DC  |
|   |   |   |   |   |   |   |   |   |    |    |    |    | 7 24V AC 50/60Hz                                    |

## OUTLINE DIAGRAM (Unit:mm)



## CONNECTION DIAGRAM



## ORDERING INFORMATION

1. Product name
2. Code symbol
3. Input
4. Function
5. Instrument specifications  
(selector, limiter, and allowance)
6. Other matters that demand care