

General Specifications

Model FP1P Pulse Repeater

JUXTA

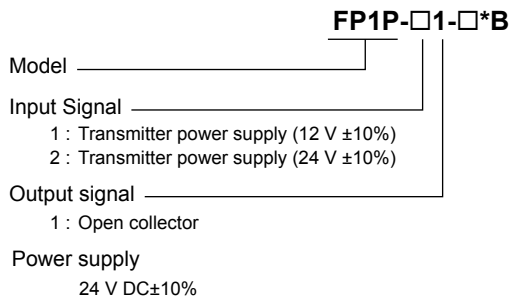
GS 77J08P01-01E

■ General

The FP1P is a compact, front terminal connection type pulse repeater that converts pulses from voltage-free contacts, open collector contacts, voltage, and current into isolated transistor switch pulses.

- With built-in 12 V or 24 V power supply for transmitter inputs.
- Internal filter can be set to eliminate chattering. (In cases where the input frequency range is up to 100Hz, the pulse width is 3ms or more)

■ Model and Suffix Codes



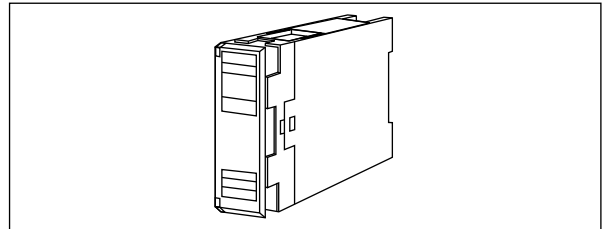
■ Ordering Information

Specify the following when ordering.

- Model and suffix codes :e.g. FP1P-21*B

■ Input/Output Specifications

- Input signal:
- 2-wire type: Voltage-free contact pulse, voltage pulse, or current pulse (transmitter power supply available)
 - 3-wire type: Voltage pulse or current pulse (transmitter power supply available)
- Input resistance: 15 kΩ or more (for contact or voltage pulse)
- Internal load resistance (for current pulse):
200 Ω, 510 Ω, 1 kΩ (selectable with switch inside)
- Input frequency: $0 < FR \leq 6$ kHz (FR=input frequency)
In case the input is voltage pulse and the swing is 5 V or more, $0 < FR \leq 10$ kHz
- Minimum input pulse width: ON; 60 μs, OFF; 60 μs
- Transmitter power supply: 12 V DC ±10%, 24 V DC ±10%, 30mA or less
- Contact input type: Relay contact or transistor ON/OFF contact
- Contact resistance:
- Close: 200 Ω or less,
 - Open: 100 kΩ or more
- Contact capacity: 15 V DC, 15 mA maximum
- Filter: Switch selectable for set or release (filter time constant; 10 ms)
- Swing width: EH-EL ≥ 3 V
- Voltage EL (low level): -1 to +8 V DC
- Voltage EH (high level): 3 to 24 V DC



Output signal: Transistor contact (open collector)
Output frequency: Same as input frequency
Output contact capacity: 30 V DC, 30 mA maximum

■ Standard Performance

Insulation resistance: 100 MΩ or more at 500 V DC between input and output, output and power supply, and input and power supply.
Withstand voltage: 1500 V AC/min. between input and (output and power supply).
500 V AC/min. between output and power supply.

■ Environmental Conditions

Operating temperature range: 0 to 50°C
Operating humidity range: 5 to 90% RH (no condensation)
Power supply voltage: 24 V DC ±10% (percentage ripple is 5%p-p or less)
Effect of power supply voltage fluctuations: ±0.1% of span or less for the fluctuation within the operating range of power supply voltage specification.
Effect of ambient temperature change: Normal operation is guaranteed over the rated operating temperature range.
Current consumption: 24 V DC 60 mA

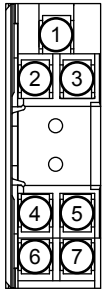
■ Mounting and Dimensions

Material: ABS resin (Case body)
Mounting method: Rack, Wall or DIN rail mounting
Connection method: M4 screw terminals
External dimensions: 72 (H) × 24 (W) × 127 (D) mm
Weight: Approx.130g

■ Standard Accessories

Tag number label: 1
Mounting block: 2
Mounting screw: M4 screw x 2

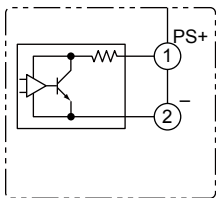
Terminal Assignments



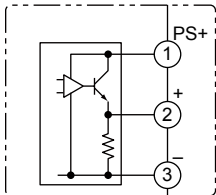
1	Input	(PS+)
2	Input	(+)
3	Input	(-)
4	Output	(+)
5	Output	(-)
6	Supply	(+)
7	Supply	(-)

Block Diagram

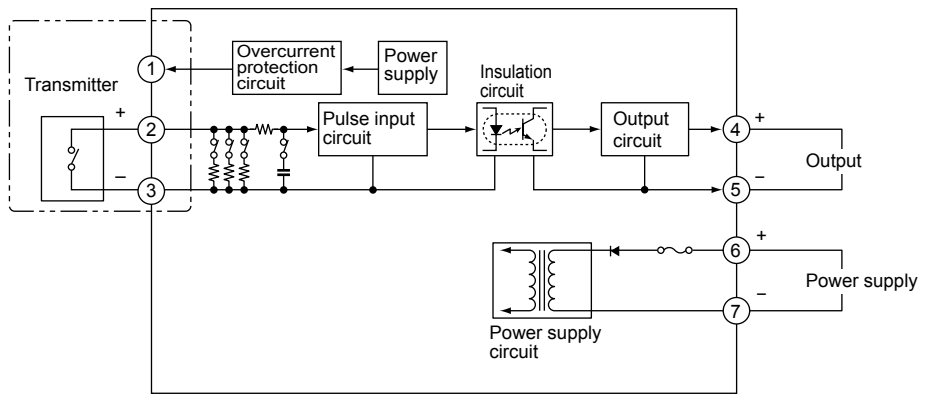
When receiving current pulses using internal resistor power supply



When receiving voltage pulses using internal transmitter power supply



When receiving voltage-free contact signals or a voltage pulses (where terminal 3 is the positive input (+), terminal 4 is the negative input (-) for voltage pulses)



External Dimensions

