

General Specifications

Model FP1P
Pulse Repeater

JUXTA

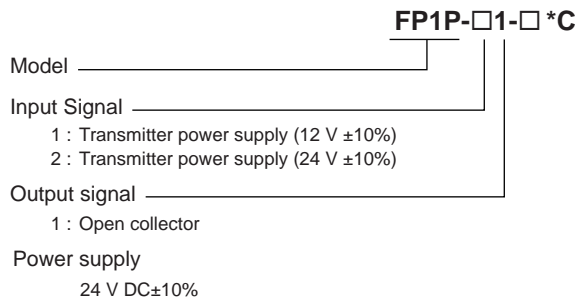
GS 77J08P01-01E

■ 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*C

■ 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

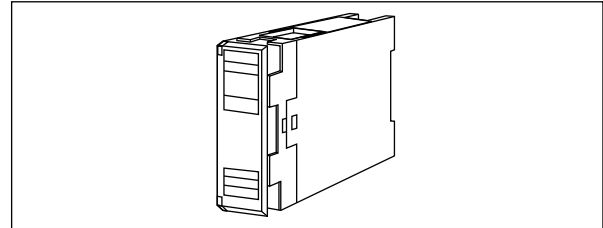
Contact capacity: 15 V DC, 15 mA maximum

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

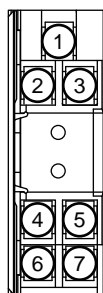
■ Mounting and Dimensions

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

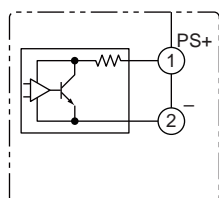


1	Input	(PS+)
2	Input	(+)
3	Input	(-)
4	Output	(+)
5	Output	(-)
6	Supply	(+)
7	Supply	(-)

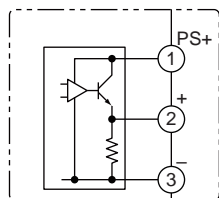
Note: This instrument may output a pulse when the power is turned on/off.
Depending on the connected devices, this pulse output is counted as "one pulse."

Block Diagram

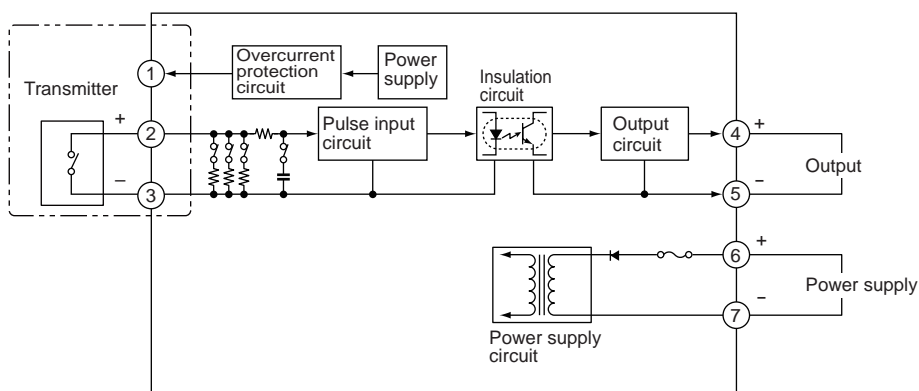
When receiving current pulses using internal resistor power supply



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

