

FC SERIES MANUAL LOADER (STEP OUTPUT)

DATA SHEET

PMD

The FC SERIES manual loader is available in two types; a manual control type, and a remote control type used in combination with a compact controller F or E. This instrument is equipped with a solid state indicator and pushbutton operation circuit to provide easy read-outs and handling in process operation by man-machine communication.

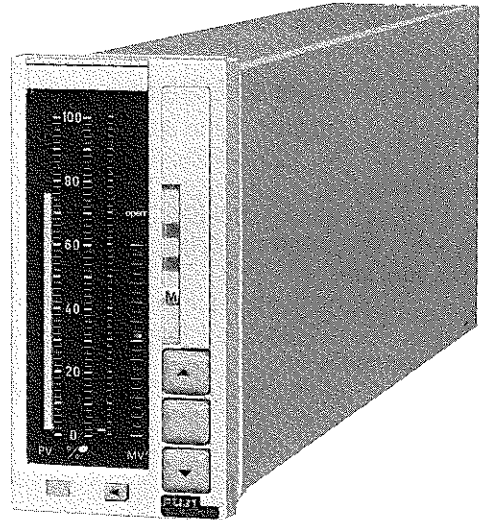
FEATURES

1. High reliability

The manual loader is a solid state instrument having few mechanical parts. The indicator and other units which were formerly composed of mechanical parts are also designed with solid state circuits to provide higher reliability.

2. Application of international standards

The instrument is compact; the external dimensions comply with the IEC standards. The power supply and signal also comply with the IEC standards (DC 24V, 4 to 20mA). Operation on AC 100V power supply is also possible.



SPECIFICATIONS

Function: PMD1; Manual control only
PMD2; With auto (A)—
manual (M) switch

Manual Control (PMD1)

Control output signal:

1a micro-switch contact each for increase and decrease
Contact capacity; Max. DC 30V, 0.1A
(resistive load)

Opening indicator:

Opening input signal;
10—100—10 Ω , 3-wire system or
DC 1 to 5V (for indication of actuator
(valve, etc.) opening)
DC 1 to 5V input
Input impedance; 500k Ω or more
(33k Ω outside of range)
Input filter time constant; 33ms
Indicating system; Light emitting diode
(red)
Number of indicating segments; 23
Indicating range; 0 to 100%, linear
Indication resolution; 2.5% of full scale

Scale length; 60 mm

Note) Instrument with PV indicator:
Process variable is indicated
on the plasma display by
pressing the change button

Manual control: Front panel pushbutton system,
With Auto (A)—Manual (M) Switch (PMD2)

Manual control output signal, opening indicator and
manual control; same as manual control type (PMD1)

External control input signal:

1a contact each for increase and
decrease (input signal from higher
ranking controller)
Contact specifications depend on
higher ranking controller output.

Auto (A)—manual (M) changeover:

Balanceless bumpless changeover for
both auto (A) \rightleftharpoons manual (M)
(by front panel lever)

Operation mode indication:

Manual (M); Red M lamp ON
Auto (A); Green A lamp ON

Mode indicating output:

Manual mode ON
Contact; Transistor contact
Output rating; Max. DC 30V, 0.1A
(resistive load)

Optional Function

Process variable indicator:

- Input signal; DC 1 to 5V
- Input resistance; 500kΩ or more (33kΩ outside of range)
- Input filter time constant; 33ms
- Indicating method; Plasma display (orange)
- Number of indicating segments; 201
- Indicating range; 0 to 100%, linear
- Indication resolution; 0.5% of full scale
- Scale length; 100 mm

Operating Conditions and Others

- Power supply:** DC 24V (20 to 30V)
AC 100V ±10%, 50/60 Hz

- Power consumption:**
Approx. 5W (DC 24V) or
approx. 8VA (AC 100V)

- Dielectric strength:**
AC 500V, 1 min. (DC power supply)
AC 1000V, 1 min. (AC power supply)

- Insulation resistance:**
More than 100MΩ at DC 500V

- Ambient temperature:**
0 to 45°C

- Ambient humidity:**
90% RH (MAX)

- Enclosure:** Steel case

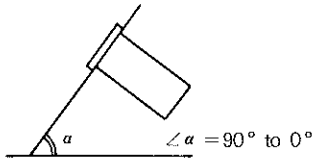
- Dimensions (HxWxD):**
144x72x400 mm (case) + terminals

- Weight:** Approx. 4 kg

- Finish color:** Munsell 7Y 7.3/1.4 (case, front panel)

- Range of delivery:**
Manual loader, and mounting bracket

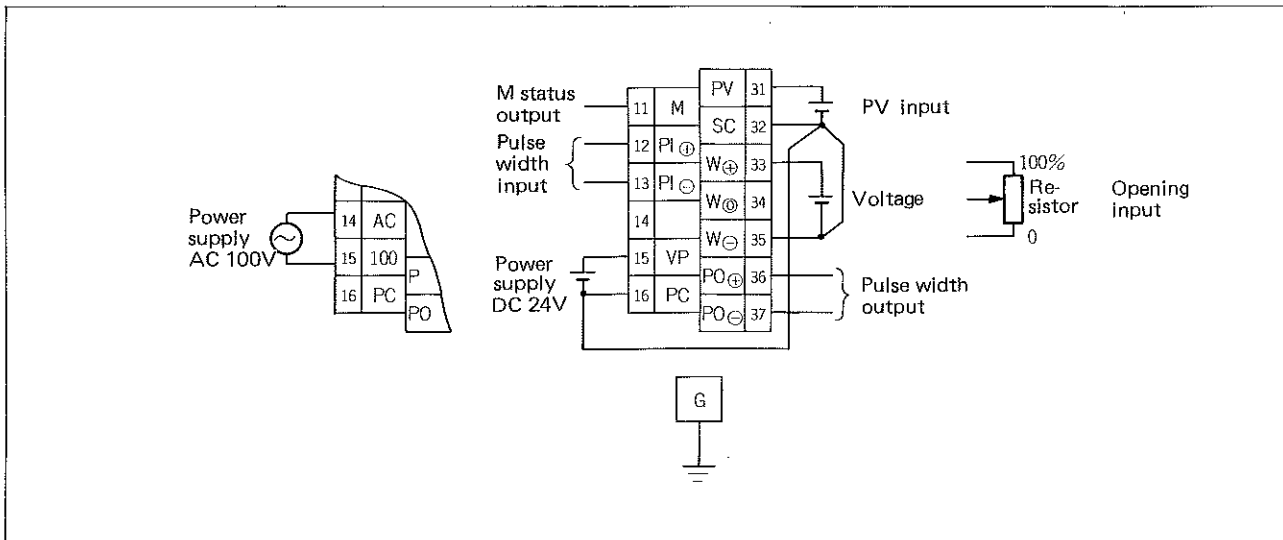
- Mounting method:**
Panel flush mounting
Standard; Vertical mounting
Nonstandard; Inclined mounting



CODE SYMBOLS

PMD		Description	
		Application and process variable indicator	
		Application	Process variable indicator
1	Y	For remote control (manual control only)	Without
1	A	For remote control (manual control only)	With
2	Y	Auto-manual changeover	Without
2	A	Auto-manual changeover	With
		Opening indicator input signal	
	V	DC 1 to 5V	
	W	10-100-10Ω	
		Power supply	
	1	DC 24V	
	3	AC 100V 50/60 Hz	

CONNECTION DIAGRAM



Note) • Alteration reserved without notice.
 • Asterisked (*) items ; Nonstandard.



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