MJ MJ820/821

Generalized interpolator with serial-interface output for FANUC CNCi series and its successor models



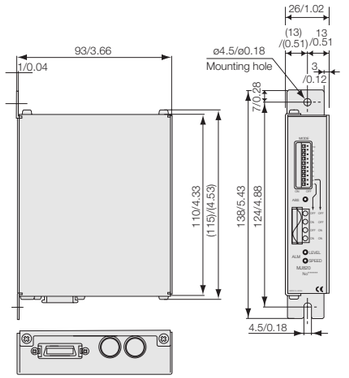
- Connectable to any general analog-output encoder.
  Input impedance: 120 Ω 1 Vp-p voltage differential input
- Max. response frequency 140 kHz for any number of divisions selected
- Switch-selectable number of divisions:40,80,100,120,160,200,240,400, 480,500,800,1000,1600,2000,3200,4000
- Compensation: DC offset, gain and phase
- Power supply: DC 5V (4.5 to 5.5 V) for MJ820; DC 12V to 24V (11V to 32V) for MJ821
- Compatible with Sony's Digital scales SL700 series with PL101

Example for connection

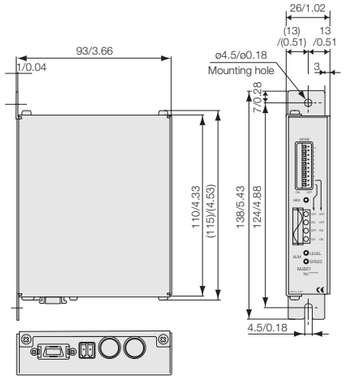
Scale	Head	Cable	Interpolator
SL700	PL101	CE08 CK-T12/13/14/15/16	MJ820/821

Dimensions

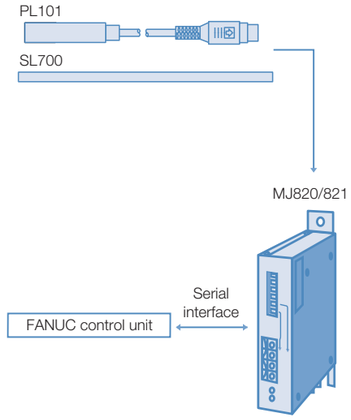
MJ820



MJ821



System configuration



Unit : mm/inch

Specifications

Model	MJ820	MJ821
Power		
Power supply voltage	DC5 V (DC4.5 to 5.5 V)	DC12 to 24V (DC11 to 32 V)
Power consumption	3 W	
Input power supply rise time	100 ms	
Surge current (10ms)	4A or less (with 5 V)	3A or less (with 12 V)
Power supply reverse connection prevention	Fuse	
Communication		
I/F input/ output circuit	Voltage-differential line driver/ receiver complying with EIA-422 (SN75C1167 or equivalent)	
Communication protocol	Dedicated Fanuc serial interface protocol	
Interpolator		
Encoder input signal	1Vp-p (Max.1.2Vp-p) impedance 120 Ω TYP	
Selectable division settings	4000,3200,2000,1600,1000,800,500,480,400,240,200,160,120,100,80,40	
Maximum response frequency for encoder input	140 kHz*1	
Alarms	"1" is sent to a designated flag at time of speed alarm and level warning*2 All LEDs flash at the time of compensated data backup error*3	
Operating temperature and humidity range	0 to 55 ℃ (no condensation)	
Storage temperature and humidity range	-20 to 65 ℃ (20 to 90%RH)	
Mass	380 g / 0.84 lbs	
Accessories	Power supply plug...1 (MJ821 only) Connector cap...1 Supplement...1 Binding band...1 (MJ821 only) Ferrite core...1 Mounting screws (4 x 10)...2	

*1: 140 kHz applies when sine and cosine signals within a designated range are applied to MJ820/821. Max. response frequency may be lower than 140kHz with change in input signal level or off-set value.
*2: Speed alarm is triggered when max. response speed is exceeded or at the time of erroneous counting due to noise. Level warning is triggered when the sine and cosine signal input level is lower than 0.6 to 0.5Vp-p.
*3: All LEDs light at the next power-on in case, at the time of data compensation, the compensated data was not correctly backed up.

MJ MJ830/831

Interpolator for Mitsubishi MR-J2 Super Series amplifier

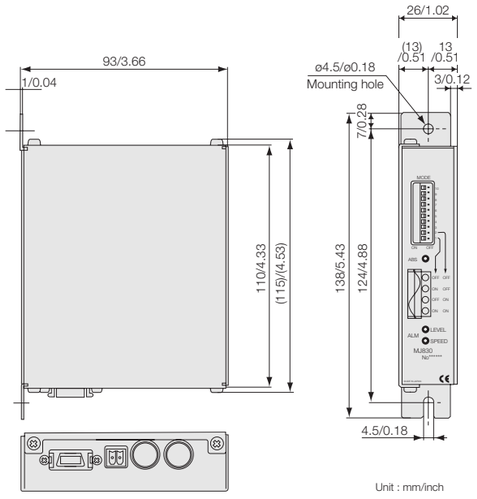


- Connectable to any general analog-output encoder.
  Input impedance: 120 Ω 1 Vp-p voltage differential input
- Max. response frequency 140 kHz for any number of divisions selected
- Switch-selectable number of divisions: 40,80,100,120,160,200,240,400, 480,500,800,1000,1600,2000,3200,4000
- Compensation: DC offset, gain and phase
- Power supply: DC 5V (4.5 to 5.5V) for MJ830; DC 12V to 24V (11V to 32V) for MJ831
- Compatible with Sony's Digital scales SL700 series with PL101

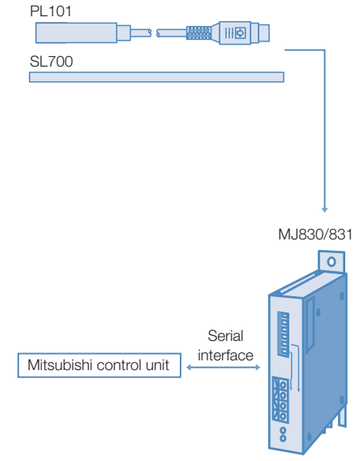
Example for connection

Scale	Head	Cable	Interpolator
SL700	PL101	CE08 CK-T12/13/14/15/16	MJ830/831

Dimensions



System configuration



Unit : mm/inch

Specifications

Model	MJ830	MJ831
Power		
Power supply voltage	DC5 V (DC4.5 to 5.5 V)	DC12 to 24V (DC11 to 32 V)
Power consumption	3 W	
Input power supply rise time	100 ms	
Surge current (10ms)	4A or less (with 5 V)	3A or less (with 12 V)
Power supply reverse connection prevention	Fuse	
Communication		
I/F input/ output circuit	Voltage-differential line driver/ receiver complying with EIA-422 (SN75C1167 or equivalent)	
Communication protocol	Dedicated Mitsubishi Electric Corp. serial interface protocol	
Interpolator		
Encoder input signal	1Vp-p (Max.1.2Vp-p) impedance 120 Ω TYP	
Selectable division settings	4000,3200,2000,1600,1000,800,500,480,400,240,200,160,120,100,64,40	
Maximum response frequency for encoder input	140 kHz*1	
Alarms	"1" is sent to a designated flag at time of speed alarm and level warning*2 All LEDs flash at the time of compensated data backup error*3	
Operating temperature and humidity range	0 to +55 ℃ (no condensation)	
Storage temperature and humidity range	-20 to +65 ℃ (20 to 90%RH)	
Mass	380 g / 0.84 lbs	
Accessories	Power supply plug...1 Connector cap...1 Supplement...1 Binding band...1 Ferrite core...1 Mounting screws (4 x 10)...2	

*1: 140 kHz applies when sine and cosine signals within a designated range are applied to MJ820/821. Max. response frequency may be lower than 140kHz with change in input signal level or off-set value.
*2: Speed alarm is triggered when max. response speed is exceeded or at the time of erroneous counting due to noise. Level warning is triggered when the sine and cosine signal input level is lower than 0.6 to 0.5Vp-p.
*3: All LEDs light at the next power-on in case, at the time of data compensation, the compensated data was not correctly backed up.