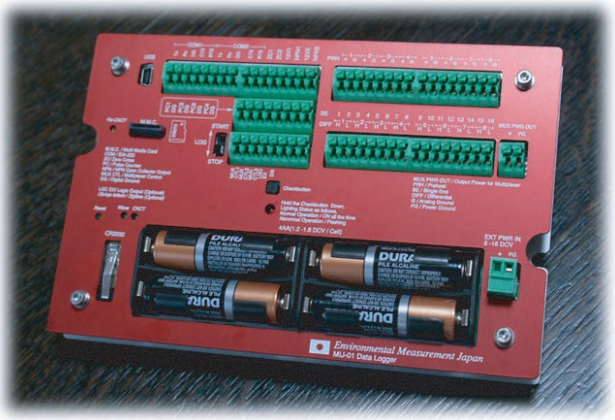
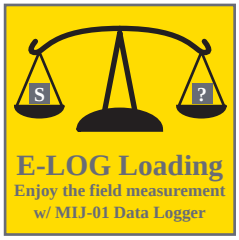
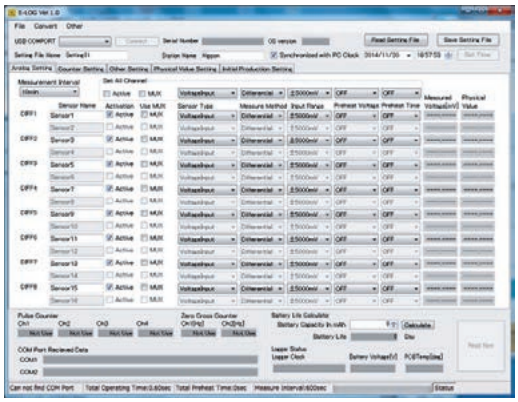
MIJ-01 Data Logger

from Environmental Measurement Japan



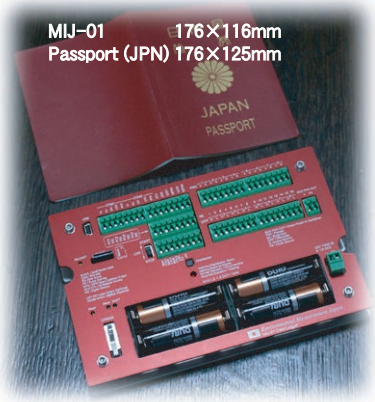




Software for MIJ-01 ELOG

<Feature>

Can work 350 days with mounted 4AA alkaline batteries.
Individual 8 Ch.150mA capacity pre-heat output (Excitation out put for drive many kind of sensors.) .
Analog inputs of DIFF8ch (SE16ch) Equipped with zero-crossing 2ch, rain gauge pulse 4ch and RS232C /2ch
5ppmTCXO is used for time stamp. And additional calibration was done using satellite 1pps pulse at factory calibration
24 bit AD converter (effective 18bit).
Mounted Micro SD Memory card slot. No need think about memory limit.
Software E-LOG make easy logger operation. Free download without authentication.
External power supply accept DC12V many kind of batteries
Connection to the PC require USB cable supplied with MIJ-01. Unnecessary, such as serial conversion cable.
Spread JPN passport sized. Easy installation to Pelican1120 water proof box(Optional or user can buy everywhere.).



< Specification>

Production Name	MIJ-01	
Input range	Resolution	Error rate
DIFF ±5000 mV	0.01mV	±0.02%F.S.
SE 0 to +5000mV	0.01mV	±0.03%F.S.
DIFF ±1250 mV	0.01mV	±0.05%F.S.
SE 0 to +1250mV	0.01mV	±0.05%F.S.
DIFF ±15 mV	0.1micro V	±0.04%F.S.
SE 0 to +62.5mV	0.1micro V	±0.04%F.S.

Temperature measurement	On-board IC thermistor + aluminum block for cold junction. Accept T and K type thermocouple. 1.0 ℃ of precision
Built-in clock	TCXO crystal oscillator± 5 ppm ±158 seconds per year (-40 to 85 degree),±120 seconds per year (-10 to 60 degree) After our calibration based on 1pps from GPS, ±30 seconds per year (-10 to 60 degree)
Accuracy of DC measurement	± 0.016% (calibration base line was made by YOKOGAWA GS200 and checked by Keithley2002.)
Number ofAnalogue input	DIFF/8ch, (SE/16ch)
Number of pre heat output	8 ch (DC12, 5 and 2.5V selectable with ELOG), Independent pre heat terminal for each DIFF ch.
Pre-Heat capacity	150mA/ch
Number of pulse input	4ch Used for rain gauge. (less than 20 Hz)
Number of Zero cross inputs	2ch Used for anemometers (Accept Generator type, but less than 15V)
Number of serial input	2ch (RS232C Tx,Rx,DG,CTS,RTS)
External battery input	accept 9 to 18 DCV
Program memory	128KB (Microcomputer having it)
SD card format	FAT32
EEP ROM capacity	32kB (On-board)
DC current at sleep mode	Less than 10 μA
DC current at measurement	Less than 80 mA (less than 100 mA of memory card writing time)
Working environment	-25 to 60 ℃ /90%RH non-condensation.(Use waterproof case, desiccant and cable grant at outside installation.)
Size	176 x 116 x 28 mm
Screw position for panel mount	Wide 169 mm offset +30mm (2 of M4 bolts and washer are recommended.See manual.)
Weight	358g (455g With 4AA alkaline batteries)
Battery	4 AA battery (Accept another type but limited 1.2 to 1.8DCV/ cell.) Mounted 4AA work as back up battery when external battery connected.
Memory back up battery	CR2032
Running time	350 days (Set up for analog 8ch, interval 10 minutes, not use pre heat)
Interval	1, 2, 5, 10, 30 Sec. 1, 3, 5, 10, 15, 30 minutes, 1, 3, 6 hours
A/D converter	24bit (Effective 18 bit))
Impedance	Over 2MOhm
Cable size	AWG24 to 16 (0.52 to 1.29mm)
Material	RoHS
Operation manual	Download from EMJ homepage

Environmental Measurement Japan

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