

DJB-M4 Weighing Digital Junction Box

S1- S1+ E- E+ SHD S2- S2+ E- E+ SHD NC NC NC NC DC- DC+



SHD E+ E- S4+ S4- SHD E+ E- S3+ S3- GND H L GND A+ B-

Keypad Operation		
【■】	Menu Operation	Exit
	Main Interface	Scale Parameters Set
【▶】	Menu Operation	Cursor shifts right Display the previous option
	Main Interface	Communication Parameters Set
【▲】	Short Press	Digit input: +1 (0~9 loop) Display the next option
	Main Interface	Unused
【↵】	Menu Operation	Enter / Save
	Main Interface	Long Press 2s: Calibration

1. Applications

- Transform the analog signal from loadcell to digital signal.
- For remote host-slave weighing system.

2. Technical Specifications

- CPU System
 - ✧ 32-bit ARM CPU with 72MHz clock & high arithmetic speed.
 - ✧ EMC design with high anti-jam for industrial environment.
- Display & Keypad
 - ✧ 128×64 OLED 1.54" display screen with white English character on black background.
 - ✧ 4-key keypad for parameter setting & system calibration.
- Loadcell Interface
 - ✧ Excitation Voltage / Max. Current: DC5V/200mA.
 - ✧ Signal Input Range: ±19.5mV.
 - ✧ Output Sensitivity of Loadcell: 1.0~3.5mV/V.
 - ✧ 24-bit Σ - Δ ADC with resolution 1/1,000,000.
 - ✧ Sampling Frequency: 200Hz.
 - ✧ Special anti-vibration digital filtering algorithm.
 - ✧ Zero Drift: ±0.2 μ V/°C RTI (Relative to Input).
 - ✧ Gain Drift: ±5ppm/°C.
 - ✧ Non-linearity: 0.005%FS.
- Digital Communication Interface
 - ✧ Configuration: RS485, Optional CANBUS.
 - ✧ Communication Protocol: Host-slave Modbus RTU.
 - ✧ Optional Baud Rate: 9600[default], 19200, 115200bps.
 - ✧ Parity Check: None.
- Operating Specification
 - ✧ Power Supply: DC24V ±20%, Max. 2W.
 - ✧ Outline Size: 108×117×55mm [W×H×D].
 - ✧ Guide rail type installation.
 - ✧ Guide Rail Groove Size: 35×1.6mm [W×D].
 - ✧ Operating Temperature: -25°C to +45°C.
 - ✧ Storage Temperature: -30°C to +60°C.
 - ✧ Relative Humidity: Max. 85%RH.
 - ✧ Weight: Approx. 300g.
 - ✧ Protection Level: IP50.

3. Communication Function

- The parameters can be set and saved in the EEPROM of the Digital Junction Box.
- Zero Calibration and Load Calibration via commands.
- Data Calibration via setting loadcell's Sensitivity and Capacity.
- The actual weight value can be read after calibration.

4. Loadcell Ports LC1-LC4

- S-: mV Signal Input -.
- S+: mV Signal Input +.
- E-: Excitation Voltage -.
- E+: Excitation Voltage + [DC5V].
- SHD: Shield Ground.

5. Communication Ports COM1 & CAN[Optional]

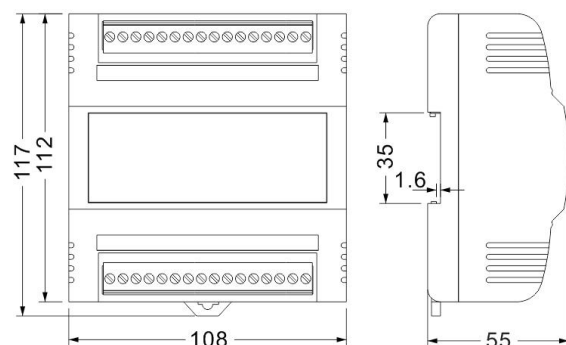
- B-: RS485 Data -.
- A+: RS485 Data +.
- L: CANBUS Data -.
- H: CANBUS Data +.

6. Power Input Port POWER

- DC-: DC Input -.
- DC+: DC Input + [DC24V].

7. State Indication

- LED [RUN] ON: Running.
- LED [COM] ON: Communicating.
- LED [ALR] ON: ADC Fault.



No.	Sign	Range	Default	Description	Register
Scale Parameters [Press key 【■】]					
01	Language	0~1	1	Language 0: Chinese; 1: English	41301
02	Weight Unit	0~3	1	Weight Unit 0: None; 1: kg; 2: t; 3: g	41303
03	Decimal	0~4	000.0	Decimal Point Position 0: 0000; 1: 000.0; 2: 00.00; 3: 0.000; 4: 0.0000	41305
04	Division	1~500	1	Scale Division 1, 2, 5, 10, 20, 50, 100, 200, 500	41307
05	Stab. Range	0~999	2	Stability Range Set value = 0: No 'Stability Judging'. Set value > 0: Weight Variance per 'Stability Time' being in 'Stability Range' means 'Weight is stable'.	41309
06	Stab. Time	0.1~9.9	0.5	Stability Time [s]	41311
07	AuZero Limit	0~9999	0	Zero Auto-tracking Limit Set value = 0: No 'Zero Auto-tracking'. Set value > 0: Only after weight being stable and the zero variation in 'Zero Auto-tracking Time' is within the range of 'Zero Auto-tracking Limit', the result of Zero Auto-tracking will be valid.	41313
08	AuZero Time	0.1~9.9	1.0	Zero Auto-tracking Time [s]	41315
09	Display Zero	0~99	0	Zero Display Limit When the absolute value of weight is within this range, the weight display value will return to zero.	41317
10	Frequency	0	0	Sampling Frequency 0: 200Hz	41319
11	Data Filter1	0~9	5	Anti-vibration Digital Filter1 0: None; 1: 11.2Hz; 2: 8Hz; 3: 5.6Hz; 4: 4.0Hz 5: 2.8Hz; 6: 2.0Hz; 7: 1.4Hz; 8: 1.0Hz; 9: 0.7Hz	41321
12	Smooth Filter2	0~10	10	Weight Display Smooth Filter2	41323
13	LC Switch	00000000 00001111	00001111	LC4-LC1 Loadcell Channel Switch [X] [X] [X] [X][LC4] [LC3] [LC2] [LC1] ✧ [LCn]=0: Loadcell A/D Channel LCn OFF ✧ [LCn]=1: Loadcell A/D Channel LCn ON	41325
14	Unused	0	0	Unused	41327
15	Hardware	0~2	0	Hardware Configuration [Special for manufacturer] 0: DJB-M4; 1: DJB-M6; 2: DJB-M8	41329
Communication Parameters [Press key 【▶】]					
21	Address	1~99	1	Communication Address	41203
22	COM1 Baud	0~2	0	COM1[RS485] Baud Rate 0: 9600bps; 1: 19200bps; 2: 115200bps	41205
23	Data Format	0~3	0	Modbus Data Format [See 'Communication Protocol']	41207
24	COM1 Mode	1	1	COM1 Communication Mode 1: Modbus RTU [Host-slave]	41209

System Calibration & Adjustment [Long Press key 【↵】 for 2s]		
Menu	Function	Operation Process
1 Zero Cal.	Zero Calibration	Press 【↵】 →Input 'Loadcell Channel No.' →Display AD Value→Press 【↵】 to save.
2 Load Cal.	Load Calibration	Press 【↵】 →Input 'Loadcell Channel No.'→Input 'Calibrating Weight'→Press 【↵】 to save.
3 Reliability	Reliability Test	Press 【↵】 to test the OLED display screen and LED indicating lamps.
4 RAM Reset	RAM Reset	Press 【↵】 to reset the RAM parameters to factory defaults.
5 Version No.	Version No.	Press 【↵】 to query Version No.
6 Password	Password Input	Special for manufacturer.