

EM300

Explosion-proof weight Indicator and controller

EM300 is an industrial-grade process-controlling explosion-proof weight indicator and controller, using flameproof and intrinsic safety design, intrinsic safety loop design, to be suitable for all kinds of dust and gas under potential explosive hazardous sites, which be applied to transmission and simple process controlling.



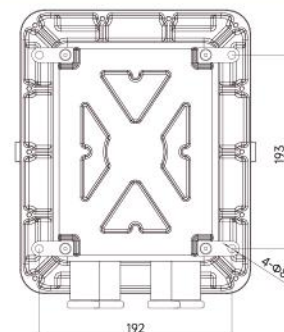
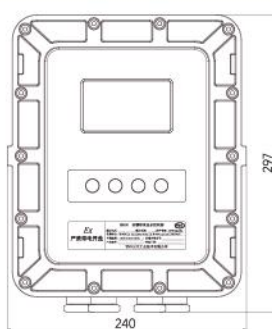
Key features

- Safety grid not required**
 - load cell interface intrinsic safety loop design.
- Dual screen display**
 - Certification accuracy: 6000e six digits LED, 1.7 "OLED screen for text message
- Square structure design**
 - IIC explosion-proof rating, high utilization of internal space, easy installation and maintenance, top rod-typed flameproof big button.
- Communication interface**
 - standard isolated RS232 and isolated RS485; CAN, analog output,4-20mA/0-10V; Optional discrete I/O port, 8 inputs and 8 outputs.
- Communication protocols**
 - Modbus-RTU, Modbus-TCP, CANopen, command output



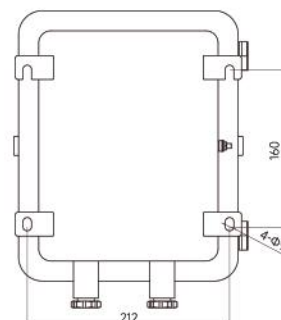
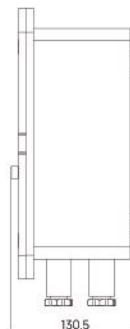
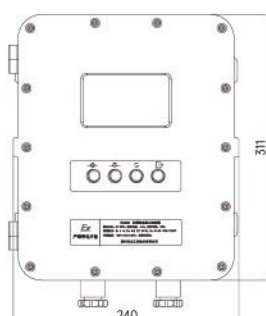
Dimensions

Aluminum-casted
Model No.
EM300-0-0
EM300-1-0



Unit: mm

Stainless steel
Model No.
EM300-0-2
EM300-1-2



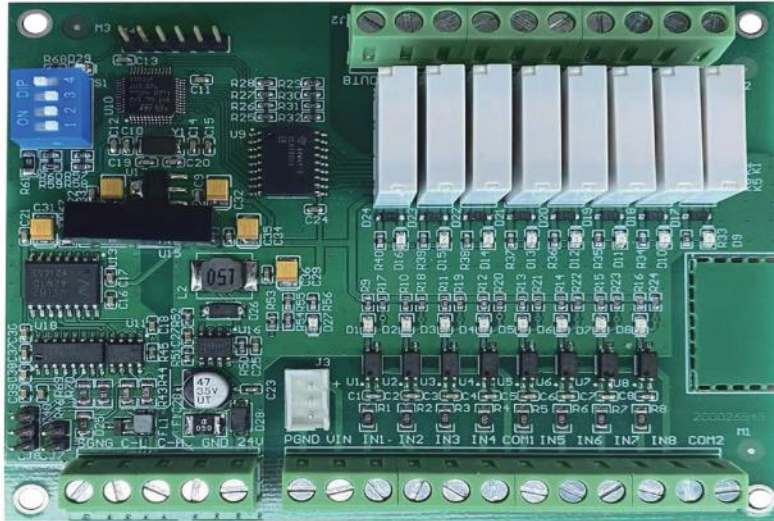
Specifications

Product model	EM300-0-2	EM300-0-0	EM300-1-2	EM300-1-0		
Materials	stainless steel (0Cr18Ni9)	cast aluminium (ADC12)	stainless steel (0Cr18Ni9)	cast aluminium (ADC12)		
Cavity size (LxWxH)mm	235x182x109	209x156x105	235x182x109	209x156x105		
Weight (Kg)	22	11	23	12		
Explosion-proof sign	Ex db [ib Gb] IIB+H2 T6 Gb; Ex tb [ib Db] IIIC T80°C Db		Ex db [ib Gb] IIC T6 Gb; Ex tb [ib Db] IIIC T80°C Db			
AC/DC Power	85-264VAC / 18-36VDC					
Protection degree	IP68(2m/2h)					
Operating temperature	-20 ~ +60					
Service entrance	G3/8" M16x1.5	G1/2" M20x1.5	G3/4" M25x1.5			
Applicable cable diameter	Φ4-Φ9		Φ6-Φ13			
Intrinsic safety parameter	Loop	Uo(V)	Io(mA)	Po(mW)	Co(μF)	Lo(mH)
	+EXC	7.14	342	397	13.5	0.7
	+SEN	7.14	342	397	13.5	0.7
	+SIG	7.14	342	397	13.5	0.7
	-SIG	7.14	342	397	13.5	0.7
	-SEN	7.14	342	397	13.5	0.7
	-EXC	7.14	342	397	13.5	0.7
Display screen	LED nixie and 1.7 "OLED dot matrix display					
Number of verification scale intervals (e)	3000					
Number of scale intervals for indicator (d)	100000					
Number of sensors	Up to 4 350 ohm load cells (2 or 3mV/V)					
AD sampling rate	300Hz					
Load cell Excitation	5VDC					
Minimum sensitivity	1μV/e					
Accuracy class	III					
KeyPad	4 key top bar button; Film keyboard (expandable up to 32 keys)					
Communication protocol	Command output, continuous output, Modbus RTU, Modbus TCP					
Calibration function	Weight calibration; Weight-free calibration; Remote calibration					
Scale	1					
Capacity	1-500,000kg (default 60)					
Increment size	0.001/0.002/0.005					
	0.01/0.02/0.05 (default 0.01)					
	0.1/0.2/0.5					
	1/2/5					
	10/20/50					
Serial ports	1 way RS232/RS485 multiplexing (isolation)					
	1 way RS232 (isolation)					
	1 way CAN (isolation)					
	1 way LAN					
Baud rate	1200, 2400, 4800, 9600 (default) ,19200, 38400, 57600, 115200					
analog quantity ※	1 way 4-20mA or 0-10v					
Input/output point ※	8 inputs (optocoupler isolation) /8 outputs (relays, transistors)					

Note: The list marked with ※ is optional, customers need to purchase separately.

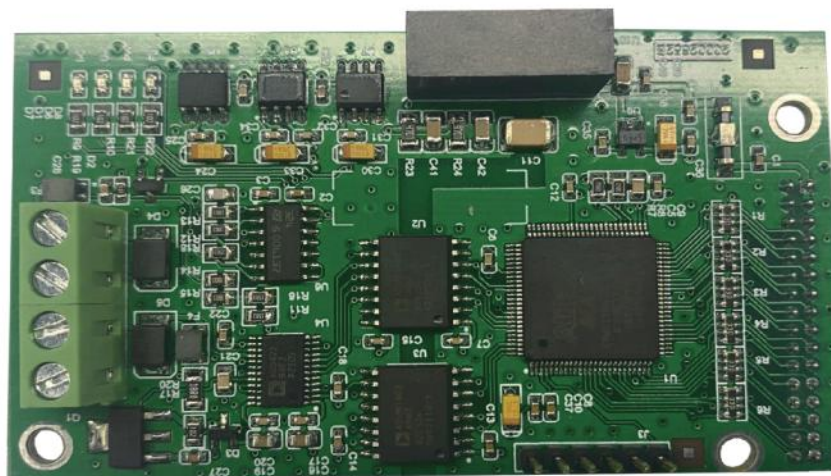
Optional board

EM300 DIO board



Name	Feature	Terminal mark	Port function description
Power supply	DIO board power input	+24V	Main board power input (+24V)
		0V	Main board power supply 0V
Control signal port	DIO board signal interface	H	H signal
		L	L signal
Control power supply	Extended input power input	SGND	Signal common terminal
		VIN	Control power supply (24V)
Input	Extended input signal interface	PGND	Control power supply ground
		IN1	Extended input 1
		IN2	Extended input 2
		IN3	Extended input 3
		IN4	Extended input 4
		COM1	Extended input 1-4 Com
		IN5	Extended output 5
		IN6	Extended output 6
		IN7	Extended output 7
		IN8	Extended output 8
Output	Extended output signal interface	COM2	Extended input 5-8 Com
		OUT1	Extended output 1
		OUT2	Extended output 2
		OUT3	Extended output 3
		OUT4	Extended output 4
		COM3	Extended output 1-4 Com
		OUT5	Extended output 5
		OUT6	Extended output 6
		OUT7	Extended output 7
		OUT8	Extended output 8
		COM4	Extended output 5-8 Com

EM300 Analog board



Analog board	Feature	Terminal mark	Terminal function description	Terminal function
Analog output	Voltage output	V0	Voltage output	Output range: 0-10V DC Load: $\geq 1k\Omega$
		VGND	Voltage output grounded	
	Current output	A0	Current output	Output range: 0-20mA DC Load: $\leq 500\Omega$
		AGND	Current output grounded	