

EM301

Explosion-proof indicator and controller for loss-in-weight

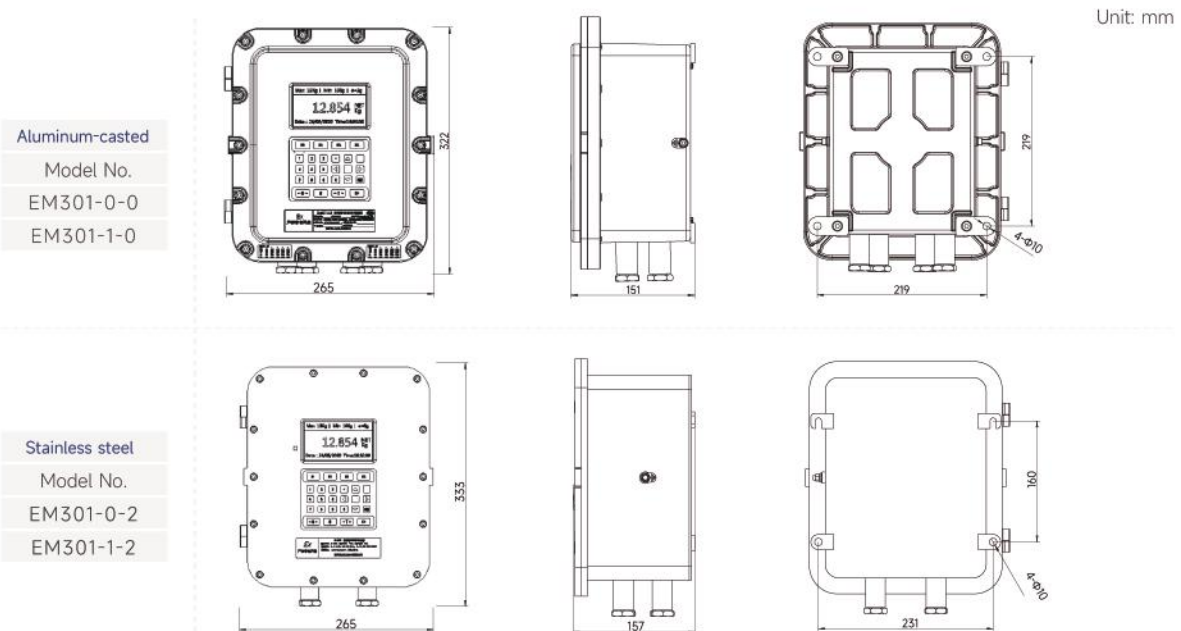
EM301 is developed from basic version, applied for dynamic weighing, completely automated continuous batching itself, using flameproof and intrinsic safety design, circuit loop with intrinsic safety for analog signal. It is suitable for potential hazardous area with dust and gas, widely used in loss-in-weight for chemical, rubber, food production, and other industries.

Key features

- Available multi-indicator linkage feeding in proportion
- Support material level automatic control
- Self-adaptive flow filtering for anti-interference
- EMC with anti-interference design for harsh industrial working conditions
- Real-time feedback of states, flow, weight and output controlling, etc



Dimensions

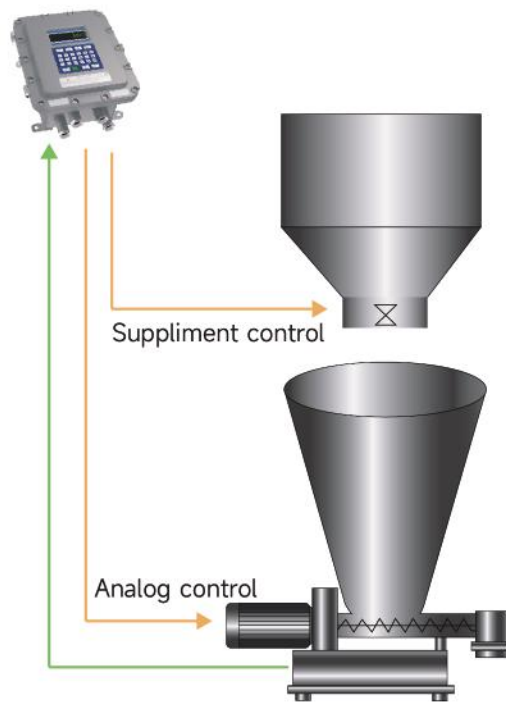


Specifications

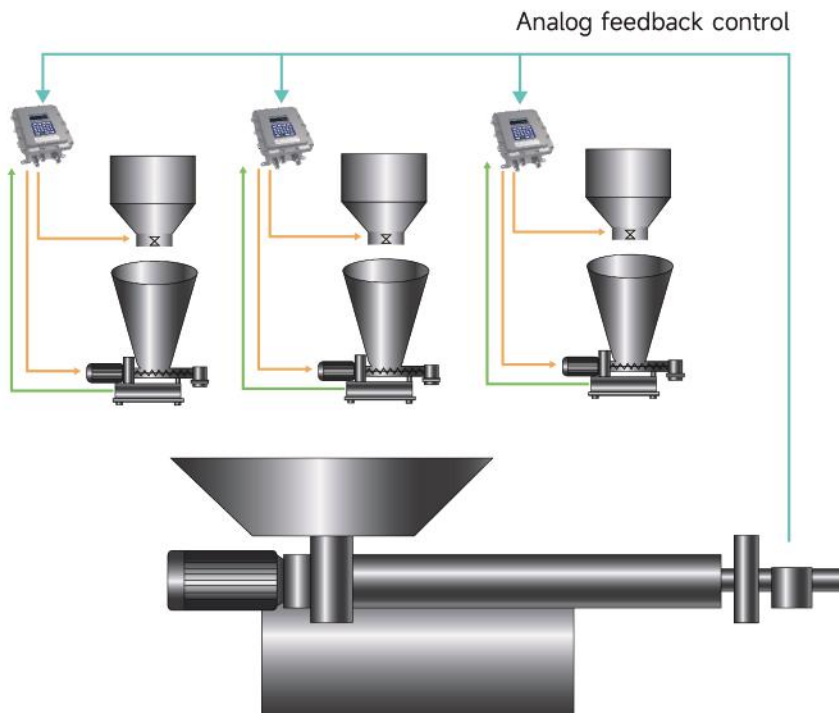
Product model	EM301-0-2	EM301-0-0	EM301-1-2	EM301-1-0		
Materials	stainless steel (0Cr18Ni9)	cast aluminium (ADC12)	stainless steel (0Cr18Ni9)	cast aluminium (ADC12)		
Cavity size (LxWxH)mm	259x207x132	226x175x115	259x207x132	226x175x115		
Weight (Kg)	24	12	25	13		
Explosion-proof sign	Ex db ib [ib Gb] IIB+H2 T6 Gb; Ex ib tb [ib Db] IIIC T80°C Db		Ex db [ib Gb] IIC T6 Gb; Ex tb [ib Db] IIIC T80°C Db			
AC 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-Φ12	Φ6-Φ13		
Intrinsic safety parameter	Loop	Uo(V)	Io(mA)	Po(mW)	Co(μF)	Lo(mH)
	+EXC	714	342	397	13.5	0.7
	+SEN	714	342	397	13.5	0.7
	+SIG	714	342	397	13.5	0.7
	-SIG	714	342	397	13.5	0.7
	-SEN	714	342	397	13.5	0.7
	-EXC	714	342	397	13.5	0.7
Display screen	4.3 " TFT full color screen					
Number of verification scale intervals (e)	6000					
Number of scale intervals for indicator (d)	100000					
Number of sensors	Up to 6 350 ohm load cells (2 or 3mV/V)					
AD sampling rate	1000Hz					
Load cell Excitation	5VDC					
Minimum sensitivity	0.5 μV/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 PROFINET, EtherNet/IP					
Calibration method	Weight calibration; Weight-free calibration; Remote calibration					
Flow controlling	Automatic PID mode deals with variation in material properties, optimizes flow controlling to get best level, real-time feedback of states, flow, weight and output controlling, etc. Flow switching without downtime, quick response, less loss during switching.					
Flow filter	Self-adaptive flow filter for anti-interference					
Automatic supplement	Material level automatic control, multi-mode to control supplement					
Combined error	<0.03%					
Non-linearity	0.06%F.S					
Repeatability	0.06%F.S					
Serial ports	1 way RS485 (isolation)					
	1 way RS232 (isolation)					
	1 way CAN (isolation)					
	1 way LAN					
DIO interface	4 inputs (optocoupler isolation) /4 outputs (relays, transistors)					
Analog quantity ※	1 way 4-20mA or 0-10v					
8DIO Interface expansion board ※	8 inputs (optocoupler isolation) /8 outputs (relays, transistors)					
8RLY Interface expansion board ※	8 inputs (optocoupler isolation) /8 outputs (relays, transistors)					
Industrial bus option board ※	PROFINET, EtherNet/IP, PROFibus-DP, CC-link					

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

Application scenario



Constant flow loss-in-weight feeding



Multi-port linkage feeding in proportion