

Manosys Controller: EMA2

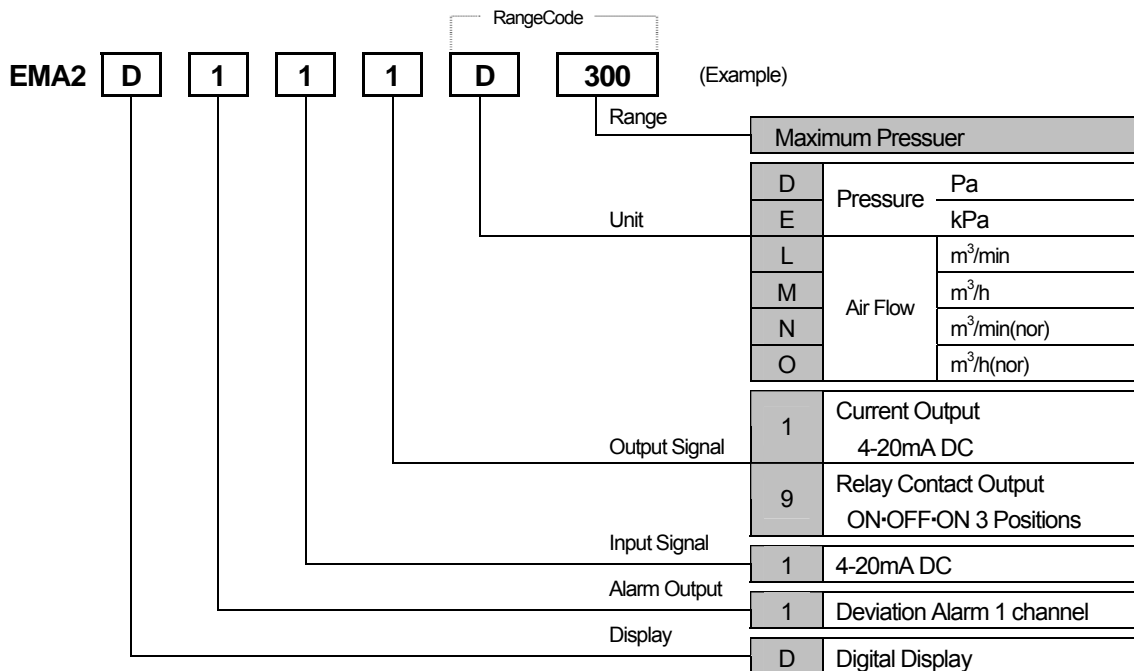
When differential pressure, pressure or airflow errors are caused by control devices, this controller calculate error and output control signals to correct the error as quickly as possible. Damper opening and fan speed are adjusted to automatically restore control devices to the target range.

This controller is used in combination with the Manosys Pressure Transmitter.



EMA2

Product Code Naming



SPECIFICATIONS

Model		EMA2							
Unit and Display									
SP/PV Display		Digital, 3 1/2 digits SP/PV switch							
Deviation Display		LED bar display -10~0 + 10%F.S. 2% step							
Power Supply		100V AC±10% 50/60Hz Appx. 6.5VA							
Outer Casing		ABS resin (ivory)							
Weight		Approx. 650g							
Operating Temperature		0°C~50°C (No icing)							
Operating Humidity		90%RH or less (No condensation)							
Insulation Resistance		Terminal to ground: over 20MΩ (500V DC megger)							
Voltage Resistance		Terminal to ground: 1500V AC 50/60Hz 1 min.							
Accessories		Installation fittings (2)							
Pressure Range Code	Pressure Range	Input Signal	Display Accuracy (20°C)	Temp. Drift (0~40°C)	Deviation Alarm Output				
D10 D20 D30 D50 D100 D200 D300 D500 D1000	0~10 Pa 0~20 Pa 0~30 Pa 0~50 Pa 0~100 Pa 0~200 Pa 0~300 Pa 0~500 Pa 0~1000 Pa	4~20mA DC (Input resistance 50Ω) For airflow measurement, extracted square root value is used.	± 1%F.S ± 1 digit.	± 0.05%F.S/°C.	Type of output: SPDT (1 circuit) Contact Capacity: MAX. 1.5A 120V AC 1.5A 30V DC MIN 0.1A, 5V DC Range of Settings: Within ± 50%F.S. of control contact point Range cannot exceed 0-100% F.S. On-Off Dead band: Within 2%F.S.				
E2 E3 E5 E10 E20 E30 E50	0~2 kPa 0~3 kPa 0~5 kPa 0~10 kPa 0~20 kPa 0~30 kPa 0~50 kPa								
D ± 10 D ± 20 D ± 30 D ± 50 D ± 100 D ± 200 D ± 300 D ± 500 D ± 1000	±10 Pa ±20 Pa ±30 Pa ±50 Pa ±100 Pa ±200 Pa ±300 Pa ±500 Pa ±1000 Pa								
E ± 2 E ± 3 E ± 5	±2 kPa ±3 kPa ±5 kPa								
Airflow Range	Airflow Range (Note 1)								
None	0~ \overline{A} \overline{B} \overline{C}								

Controller						
Model		Control Mechanism	Accuracy (20°C)	Control Output	Output Mechanism	Control Constant
Current Output	EMA2D111	Current Output PID	± 1%F.S.	4~20mA DC (load resistivity <500Ω)	Output current decreases when input increases	Proportional Band:20-200%F.S. Integration time: 0.5-6 min Differential time: 0-1 min All variable
Relay Contact Output	EMA2D119	Relay Output PID Feedback Potential input position ratio Potential meter:135Ω	± 1%F.S. When: Proportional band <50%F.S dead band at 2%	Relay contact output 2xSPST Contact capacity 2A 250V AC 2A 30V DC On-off dead band 1%(fixed)	ON•OFF•ON 3 position mechanism	Proportional Band:20-200%F.S. Setting Dead band:2-10%F.S. Integration time:0.5-6 min Differential time: 0-1 min All variable

Note 1: **A**: Value (rounded off), **B**: Multiplying power (x10, x100, x1000, x10000), **C**: Unit (m³/h, m³/min, m³/h(nor), m³/min(nor))

- Negative displays (such as 0~ -100Pa) are also available.

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