

## Function Modules

### TWO-INPUT ARITHMETIC FUNCTION MODULES

- Provides a DC signal proportional to the arithmetic function of two inputs

#### M2ADS Addition

Output = Input 1 + Input 2  
(Output, Input 1 & 2: 0-120 %)

#### M2SBS Subtraction

Output = Input 1 - Input 2  
(Output, Input 1 & 2: 0-120 %)

#### M2MLS Multiplication

Output = Input 1 × Input 2  
(Output, Input 1 & 2: 0-120 %)

#### M2DIS Division

Output = Input 1 ÷ Input 2  
(Output, Input 1: 0-120 %, Input 2: 5-120 %)

### RATIO/BIAS MODULES

- Precise matching of DC control signals to final control elements

#### M2REB Output Bias

$X_o = KX_i + B$  (positive ratio)  
 $X_o = KX_i + B + 100\%$  (negative ratio)  
(K: 0.1 to 4.00 or -0.1 to -4.00, B: ±100%)

#### M2RTS Input Bias

$X_o = K(X_i + B)$  (positive ratio)  
 $X_o = K(X_i + B) + 100\%$  (negative ratio)  
(K: 0.1 to 4.00 or -0.1 to -4.00, B: ±100%)

### SQUARE ROOT EXTRACTOR

#### M2FLS

- Provides a DC signal proportional to the actual flow

### HIGH/LOW LIMITER

#### M2LMS

- Prevents DC output from going above or below preset values
- Limit range: -10.0 to +105%

### INVERTED OUTPUT

#### M2UDS

- DC output proportional to the inverted input

### FILTERS

- Limits the rate-of-change of the output

#### M2CDS Delay Buffer

Time constant: 0.5-20 sec.

#### M2CRS Ramp Buffer

Rate-of-change: 0.5-40 sec.

### HOLD FUNCTION

- Holds the output signal once the command is received until reset
- M2AMS Track/Hold**  
Output held at the command

#### M2PHS Peak/Valley Hold

Responds only to increasing or decreasing signals

### HIGH/LOW SELECTOR

#### M2SES

- Selects either higher or lower of two input signals



### SPECIFICATIONS

Series	M2 Series
DC voltage input	Specific range of -300 to +300 V (±30V for M2REB/M2RTS/M2LMS)
Minimum span	3mV (10mV for M2MLS/M2DIS; 100mV for M2REB/M2RTS)
DC current input	Resistor attached to the input terminals. 4-20 mA, 0-10 mA, 10-50 mA, etc.
DC current output	Specific range of 0-20 mA; e.g. 4-20 mA
Minimum span	1mA
Load resistance	≤750Ω at 4-20 mA
DC voltage output	Specific range of -10 to +12 V; e.g. 1-5 V, 0-10 V
Minimum span	5mV
Load resistance	≥5kΩ at 1-5 V
Power input	24 Vdc or 100-240 Vac
Accuracy	±0.2 % (except M2DIS: ±1%, M2UDS: ±0.1%)
Response time	≤0.5 sec. (0-90%)
Operating temperature	-5 to +55°C (23 to 131°F)
Insulation resistance	≥100MΩ with 500 Vdc
Dielectric strength	2000 Vac @1 minute (input to output to power to ground)
CE marking	Yes
Safety approval	UL & C-UL nonincendive (except M2REB/M2RTS/M2LMS)