

**Eclipse Series****Product Description**

Eaton's Eclipse Series offers a high visibility LED and a variety of optional outputs.

**Features**

- 1/8 DIN cutout
- NEMA 4X front panel
- Universal AC power supply (85–265 Vac)
- DC power modules (9–30 Vdc)
- Removable screw terminals
- Short depth: 3.6 in (91 mm)
- Front panel programming

**Standards and Certifications**

- UL and cUL listed
- CE marked

**Product Selection**

57700470

**Eclipse Series Five-Digit LED Ratemeter**

Description	Catalog Number
9–30 Vdc	57700470
9–30 Vdc, alarms	57700471
9–30 Vdc, analog out	57700472
9–30 Vdc, alarms, analog out	57700473
9–30 Vdc, RS-485	57700474
9–30 Vdc, alarms, RS-485	57700475
9–30 Vdc, alarms, analog out, RS-485	57700477
85–265 Vac	57701470
85–265 Vac, alarms	57701471
85–265 Vac, analog out	57701472
85–265 Vac, alarms, analog out	57701473
85–265 Vac, RS-485	57701474
85–265 Vac, alarms, RS-485	57701475
85–265 Vac, analog out, RS-485	57701476
85–265 Vac, alarms, analog out, RS-485	57701477

**Technical Data and Specifications****General Specifications**

Description	Specification
<b>Input Power</b>	
AC powered models (57701-4XX)	
Input power	85–265 Vac, 47–63 Hz, 20V A
External fuse	0.2A, 250 Vac, time delay (T200 mA, 250V)
Isolation dielectric strength	2300 Vac
DC powered models (57700-4XX)	
Input power	9–30 Vdc, 12 VA
External fuse	2.0A, 50 Vdc, time delay, (T2A, 50V)
Reverse voltage protection	Yes
Isolation dielectric strength	2300 Vac to signal inputs and relays, 500 Vac to RS-485 and analog outputs
<b>Human Interface</b>	
Display	Five digits
Type	0.56 in high, seven segment, red LED
Indicator	One red LED program/calibration indicator
Update time	0.1 to 99.9 seconds minimum

## General Specifications, continued

Description	Specification
<b>Data Retention</b>	
Memory type	EEPROM, no batteries required
Duration	100 years
<b>Signal Input</b>	
Rate/process time	Signal in
Sensor type	Sink or source, DIP switch selectable
Input impedance	4.75k ohms to +5 Vdc or 34.9k ohms to ground
Thresholds	
High	3.5 to 28 Vdc
Low	0 to 1.9 Vdc, for single ended signals
Magnetic pickup range	200 mV p-p to 65V rms into 34.9k ohms
Frequency response	200 Hz max. or 10 kHz max. (5V signals), DIP switch selectable
<b>Program Enable Input</b>	
Sensor type	Sink only
Input impedance	4.75k ohms to +5 Vdc
Thresholds	
High	3.5 to 28 Vdc
Low	0 to 1.9 Vdc
Response	25 ms max. (5V signal)
<b>Accessory Power Output</b>	
Voltage	12 Vdc $\pm 12\%$
Current	75 mA max.
Protection	Short-circuit protected
<b>Optional Outputs</b>	
Relay board	
Number of relays	Two
Contact type	1 set Form C per relay
Contact rating	5A, 250 Vac or 30 Vdc
Isolation dielectric strength	2300 Vac
Analog retransmission	
Output signals	4–20 mA (<750 ohms) and 0–10V (>2500 ohms)
Accuracy	0.13% full scale and 100 PPM/°C (and 0.07% full scale change over 4–20 mA load ranges)
Isolation dielectric strength	2300 Vac to signal inputs, relays and AC power inputs; 500 Vac to RS-485 and DC power inputs
RS-485 serial communications	
Baud rate	1200, 2400, 4800, 9600, or 19,200, programmable
Parity	Even, odd or no parity
Address range	00 to 99 decimal
Protocol	Opto 22® compatible
Isolation dielectric strength	2300 Vac to signal inputs, relays and AC power inputs; 500 Vac to analog outputs and DC power inputs
<b>Environmental</b>	
Operating environment	Indoor use to 2000 meters
Temperature	
Operating	32° to 122°F (0° to 50°C)
Storage	–4° to 158°F (–20° to 70°C)
Humidity	0 to 85% RH, non-condensing
Vibration	2.5 Gs, 30 to 200 Hz
Shock	30 Gs, 11 ms half sinewave
EMC	
	Immunity to EN 50082-2 (heavy industrial)
	Emissions to EN 50081-2 (heavy industrial)
Front panel	NEMA 4X when mounted with gasket provided
CE EMC immunity and emissions requirements	Met using shielded wiring on the RS-485, analog output and pulse input/ power lines. The shields were connected to earth ground at the Eclipse end of the shields.
Pollution degree 2	Overvoltage Category II

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**Dimensions**

Approximate Dimensions in Inches (mm)

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