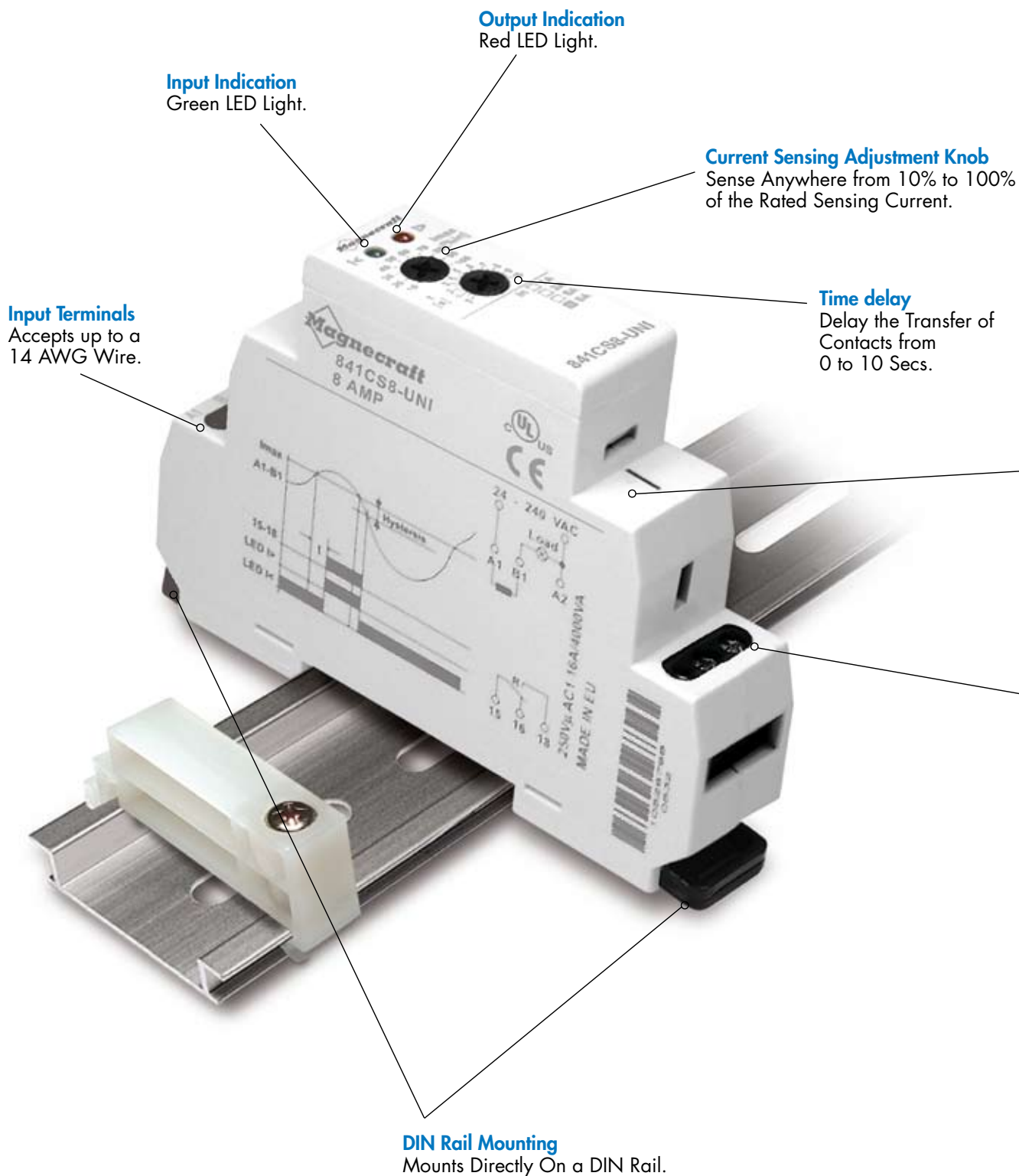


## Advantages of the 841 Current Sensing Relay



The 841 Current Sensor Series is a complete current sensing solution in one modular package which mounts directly to a DIN rail. This product allows the user to monitor the current of one circuit (1 to 8 amps) and switch another circuit in case of an over current or under current condition. The built in time delay feature allows the user to accurately switch the output anytime between 0 to 10 seconds after the preset current monitoring condition is violated. Also, the 841 has the capability to extend the sensing range up to 600 A through the use of current transformers.

#### **Solid State Circuitry**

Used for Sensing and Timing Control.

#### **Output Terminals**

Accepts up to a 14 AWG wire.

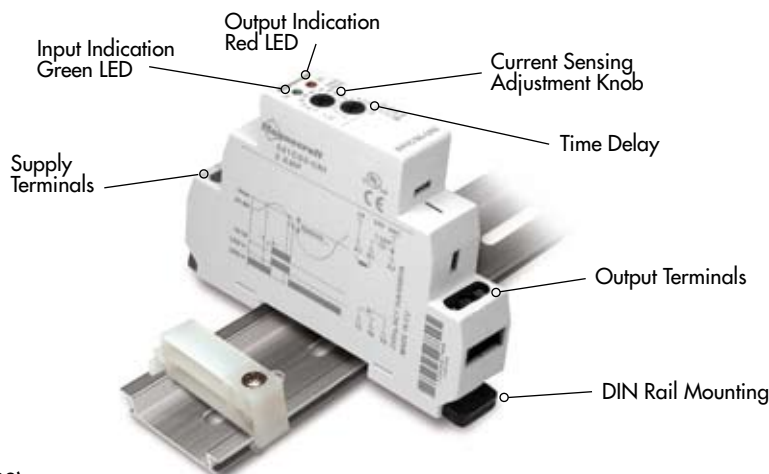
- The variable trip point feature allows the user to accurately sense over/under loads.
- Offers a "one stop solution" for your power management system.
- Two LED status indicators; indicate status at a glance.
- The Green LED is on when power is applied to the input terminals. The Red LED blinks during time-out, and is ON when the output is energized.
- Color and appearance designed for high visibility in all environments.
- The wide input voltage range of 24 to 240 AC enables the device to work with all popular AC voltages.
- Only 17.5 mm wide making it ideal for tight spaces.
- Engineering availability allows for customized relay solutions.



#### **Optional Panel Adapter (16-788C1)**

See Section 3 p.18

## 841 Current Sensing Relay/SPDT 15 Amp Rating



### General Specifications (@ 25°C) (UL 508)

| Output Characteristics                       |                                           | Units                             | 841CS1-UNI       | 841CS2-UNI       | 841CS5-UNI       | 841CS8-UNI       |
|----------------------------------------------|-------------------------------------------|-----------------------------------|------------------|------------------|------------------|------------------|
| Number and type of Contacts                  |                                           |                                   | SPDT             | SPDT             | SPDT             | SPDT             |
| Contact Material                             |                                           |                                   | Silver Alloy     | Silver Alloy     | Silver Alloy     | Silver Alloy     |
| Current rating                               | @ 240 VAC, 24 VDC                         | A                                 | 15               | 15               | 15               | 15               |
| Switching voltage                            |                                           | V                                 | 240 AC, 50/60 Hz | 240 AC, 50/60 Hz | 240 AC, 50/60 Hz | 240 AC, 50/60 Hz |
|                                              |                                           | V                                 | 24 DC            | 24 DC            | 24 DC            | 24 DC            |
|                                              |                                           | HP                                | 1/2 @ 120VAC     | 1/2 @ 120VAC     | 1/2 @ 120VAC     | 1/2 @ 120VAC     |
|                                              |                                           | HP                                | 1 @ 240 VAC      | 1 @ 240 VAC      | 1 @ 240 VAC      | 1 @ 240 VAC      |
|                                              |                                           | Pilot Duty                        | B300             | B300             | B300             | B300             |
| Minimum Switching Requirement                |                                           | mA                                | 100              | 100              | 100              | 100              |
| Indication                                   | LED                                       | Blinks = Timing<br>On = Energized | Red              | Red              | Red              | Red              |
| Input Characteristics                        |                                           |                                   |                  |                  |                  |                  |
| Voltage Range                                |                                           | V                                 | 24...240 AC      | 24...240 AC      | 24...240 AC      | 24...240 AC      |
| Maximum consumption                          | LED                                       | VA                                | 1.5              | 1.5              | 1.5              | 1.5              |
| Indication                                   |                                           |                                   | Green            | Green            | Green            | Green            |
| Sensing Characteristics                      |                                           |                                   |                  |                  |                  |                  |
| Sensing Range                                |                                           | A                                 | 0.1...1          | 0.2...2          | 0.5...5          | 0.8...8          |
| Timing Characteristics                       |                                           |                                   |                  |                  |                  |                  |
| Time Scales                                  |                                           |                                   | 1                | 1                | 1                | 1                |
| Time Ranges Available                        |                                           | sec                               | 0...10           | 0...10           | 0...10           | 0...10           |
| Tolerance                                    | Mechanical Setting                        | %                                 | 5                | 5                | 5                | 5                |
| Repeatability                                | Constant Voltage<br>and Temperature       | %                                 | 1                | 1                | 1                | 1                |
| Operate Time                                 | Maximum                                   | ms                                | 25               | 25               | 25               | 25               |
| Release Time                                 | Maximum                                   | ms                                | 20               | 20               | 20               | 20               |
| Performance Characteristics                  |                                           |                                   |                  |                  |                  |                  |
| Electrical Life                              | Operations @ Rated Current<br>(Resistive) |                                   | 100,000          | 100,000          | 100,000          | 100,000          |
| Mechanical Life                              | Unpowered                                 |                                   | 10,000,000       | 10,000,000       | 10,000,000       | 10,000,000       |
| Dielectric strength                          | Input to Contacts                         | V                                 | 2500 AC          | 2500 AC          | 2500 AC          | 2500 AC          |
|                                              | Between Open Contacts                     | V                                 | 1000 AC          | 1000 AC          | 1000 AC          | 1000 AC          |
| Terminal Wire Capacity                       |                                           | AWG (mm <sup>2</sup> )            | 14 (2.1)         | 14 (2.1)         | 14 (2.1)         | 14 (2.1)         |
| Terminal Torque (maximum)                    |                                           | in lb (Nm)                        | 7.1 (0.8)        | 7.1 (0.8)        | 7.1 (0.8)        | 7.1 (0.8)        |
| Environment                                  |                                           |                                   |                  |                  |                  |                  |
| Product certifications                       | Standard version                          |                                   | UL, CE           | UL, CE           | UL, CE           | UL, CE           |
| Ambient air temperature<br>around the device | Storage                                   | °C                                | -30...+70        | -30...+70        | -30...+70        | -30...+70        |
|                                              | Operation                                 | °C                                | -20...+55        | -20...+55        | -20...+55        | -20...+55        |
| Degree of protection                         |                                           |                                   | IP 20            | IP 20            | IP 20            | IP 20            |
| Weight                                       |                                           | grams                             | 60               | 60               | 60               | 60               |



Optional Panel Adapter  
(16-788C1)  
See Section 3 p.18

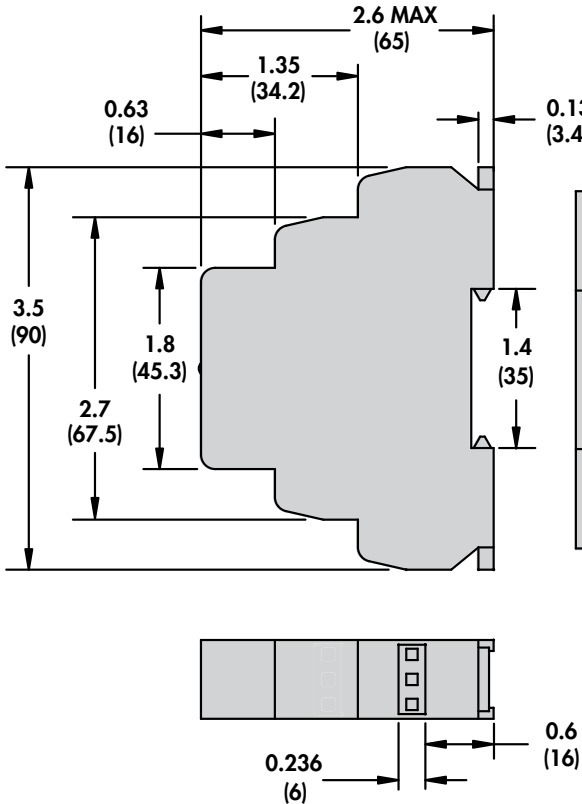
# Standard Part Numbers

**BOLD-FACED PART NUMBERS ARE NORMALLY STOCKED**

| Part Number       | Input Voltage | Timing Range | Sensing Current Range | Contact Configuration | Rated Load Current |
|-------------------|---------------|--------------|-----------------------|-----------------------|--------------------|
| <b>841CS1-UNI</b> | 24...240 VAC  | 0.1s...10s   | 0.1...1A              | SPDT                  | 15 Amps            |
| <b>841CS2-UNI</b> | 24...240 VAC  | 0.1s...10s   | 0.2...2A              | SPDT                  | 15 Amps            |
| <b>841CS5-UNI</b> | 24...240 VAC  | 0.1s...10s   | 0.5...5A              | SPDT                  | 15 Amps            |
| <b>841CS8-UNI</b> | 24...240 VAC  | 0.1s...10s   | 0.8...8A              | SPDT                  | 15 Amps            |

## Part Number Builder

| Series     | Relay Style         | Sensing Current | - | Input Voltage      |
|------------|---------------------|-----------------|---|--------------------|
| 841 = SPDT | CS = Current Sensor | 1 = 0.1...1 Amp |   | UNI = 24...240 VAC |
|            |                     | 2 = 0.2...2 Amp |   |                    |
|            |                     | 5 = 0.5...5 Amp |   |                    |
|            |                     | 8 = 0.8...8 Amp |   |                    |



## WIRING DIAGRAM

