

Crompton Meter Relays

- Monitors and Controls Any Variable Which Can be Converted Into an AC or DC Signal
- Rugged Shock and Vibration Resistant Design
- Indicator, Relays and Power Unit in One Housing
- Control Function Continues if the Indicator Becomes Damaged
- Stable Electronic Switching Circuit Does Not Use Lamps, Photocells, Inductors or Capacitors
- Taut Band, Fluid Damped Indicator
- Isolated Input Signal
- LED Relay State Indicators

Series 239 and 077 meter relays combine a highly accurate indicator with High and Low set point relays. The relays can operate alarm and control devices when the monitored signal value moves outside the chosen set point limits shown by adjustable red index pointers. A single compact case houses the unit which requires only the input signal and power supply thus saving space and installation time.



239 ▲

SPECIFICATIONS

| Input Signal Ratings | |
|-----------------------|------------------------------------------------------------------------|
| Frequency Monitoring: | 45/65 Hz or 55/65 Hz |
| DC Voltage: | 10 mV to 800V, 1K ohm/V |
| DC Current: | 1 uA to 15A, 20 mV drop |
| AC Voltage: | 10V to 600V 1K ohm/V |
| AC Current: | 1A to 15A, 5A CT Operation |
| Thermocouples: | Standard Outputs Min. 10 mV Span |
| RTD Operation: | 10 Ohm Copper, 100 Ohm Platinum |
| Overloads: | 1.2 x continuous, up to 200V or 100 mA 10 x for 10 seconds |
| Damping Time: | 1 Second |
| Operating Time: | 250 ms to 10 sec adjustable (077) 250 ms to 20 sec adjustable (239) |
| Relay Operation: | SPDT contact on each setpoint (DPDT on 239) |
| Contact Rating: | 5A, 250V, 1000W non-inductive |

External Power Supply

An External AC or DC supply is required for operation of all Meter Relays and must be specified at the time of ordering. AC - Standard Unit will accept 120V or 240V, 60 Hz (Selectable internally at factory)
DC - 12V, 24V, 48V and 125V DC

Note: External Supplies derived from rectified AC must be externally filtered to minimize Ripple Content.

Scales:

Standard Scales may be selected from the 1, 1.5, 2, 3, 4, 5, 6, 8, 10 and multiples of 10 or 100 in standard face type. Any caption using standard face type may be specified. Center zero scales are standard where the end value is listed in the above series.

Relay State Indicators:

Red LED relay state indicators are fitted in dial as standard at no extra charge.

Ordering Information:

Due to the Versatility of this product it is difficult to list the complete part numbers for all the various functions. Please provide the basic catalog number listed above, along with input, scale, frequency, external power supply, and any options (see table below) you may require. We will then generate a complete part number.



077 ▶



Crompton Meter Relays

239 SERIES ORDERING INFORMATION

| | |
|----------|-----------------------------------------------------------------------------------------------------------------------------|
| 239-302A | 2 Output Relays, 2 Set Points, High/Low Control |
| 239-301A | 1 Output Relay, 1 Set Point, High Control Only |
| 239-307A | 1 Output Relay, 1 Set Point, Low Control Only |
| 239-300A | 1 Output Relay, 2 Set Points, High/Low Control |
| 239-30TA | 2 Output Relays, 2 Set Points, High/Low Control, Thermocouple Applications Fitted with Cold Junction Compensation Circuitry |
| 239-30RA | 2 Output Relays, 2 Set Points as 239-30TA but for RTD Applications |
| 239-304A | 2 Output Relays, 2 Set Points, High Relay Downscale Energized, Low Relay Upscale Energized |
| 239-305A | 2 Output Relays, 2 Set Points, both Relays Downscale Energized |

Note: Specify Calibration Information (See below Ordering Information)

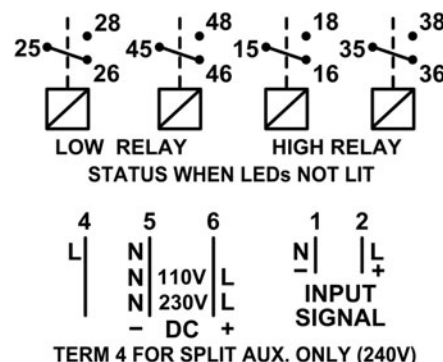
077 SERIES ORDERING INFORMATION

| | |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------|
| 077-302A | 2 Output Relays, 2 Set Points, High/Low Control |
| 077-301A | 1 Output Relay, 1 Set Point, High Control Only |
| 077-307A | 1 Output Relay, 1 Set Point, Low Control Only |
| 077-300A | 1 Output Relay, 2 Set Points, High/Low Level Control |
| 077-30TA | 2 Output Relays, 2 Set Points, High/Low Control, Thermocouple Applications (Specify Type), Fitted with Cold Junction Compensation Circuitry |
| 077-30RA | 2 Output Relays, 2 Set Points, as 077-30TA, but for R.T.D. Applications (Specify 10 ohm Copper or 100 ohm Platinum) |
| 077-303A | 2 Output Relays, 2 Set Points, both Relays Upscale Energized |
| 077-304A | 2 Output Relays, 2 Set Points, High Relay, Downscale Energized, Low Relay Upscale Energized |
| 077-305A | 2 Output Relays, 2 Set Points, both Relays Downscale Energized |

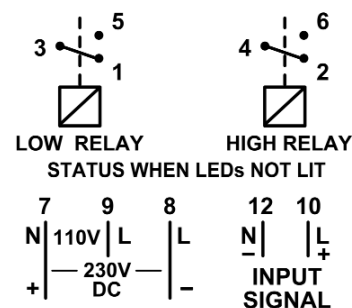
Note: Specify Calibration Information (See below Ordering Information)

OPTIONAL EXTRAS

| Description | Code |
|----------------------------------------------------------------------------------------------------------------------------------|------------|
| 4-20 mA DC Suppressed Zero Input | HG |
| 5 AAC input - A 5A/10A internal CT is fitted permitting connection to the secondary of any of an external instrument transformer | LS |
| Latching on both relays (specify reset operation) | Consult |
| Mirror Dial | Consult |
| Thumb Screw Set Point Adjuster(s) | FK |
| Expanded Scale | |
| Off-Set Zero Scale | |
| Time Proportional Control-Models 239-30T and 239-30RA | TP |
| Extended Operating Temperature Range (-25 to +60°C) | ET |
| 12V, 24V, 48V External Power | MU, BD, BE |
| 125 VDC External Power | BI |
| Retrofit Mounting Plate Allows Model 239 to be mounted in place of Model 237 using same holes | RP |
| Double Pole, Double throw relays have 0.3 to 20 Second Adjustable Time Delay as Standard | |
| Other options and special features available upon request | |



239 Terminal Diagram



077 Terminal Diagram

Low relay activates when signal is below setpoint.

High relay activates when signal is above high setpoint.