

Application Note

Current Switch Technology Comparison

Sure-Set Current Switches

You are a controls contractor who installs current switches. A job calls for the installation of fifteen current switches on a variety of motors with different ratings. You have two choices of current switches, a fixed set-point or an adjustable set-point switch.

The fixed set-point switch is great because you can do the install without ever working on a live circuit, increasing your safety and eliminating the chance of dealing with an arc flash incident. The only problem is that you have 15 switches to install and you do not know the horsepower of each of the motors, so you are forced to carry a number of different set-point switches in order to make sure that you have enough switches with proper set-points to complete the job. Not only is it expensive to carry this type of inventory, but unless you carry fifteen of each switch, you can't guarantee that you have the necessary switches for the job. If it happens that you run out of one type of switch, you may have to come back another day with the sufficient number of switches, costing you not only inventory but also time that you could have spent on another job site.

The adjustable set-point is flexible enough to be used on a variety of different powered motors, thus it eliminates the cost of carrying excess inventory. While increased convenience is great, it also compromises your safety by increasing your risk of experiencing an arc flash hazard. During an installation of an adjustable current switch, the installer is working on an energized circuit and must wear a PPE (Personal Protective Equipment) Suit. The installer must adjust the potentiometer with an insulated screwdriver until the LED indicates that the switch is

Fixed set-point switch		
Safety	Inventory	Installation Time
✓	✗	✓

Adjustable set-point switch		
Safety	Inventory	Installation Time
✗	✓	✗

at the appropriate set point. Arc flash hazard is unpredictable and can be caused by one of a number of different circumstances, making installing a current switch within a live enclosure a dangerous job. Is the money saved from carrying fewer inventories worth the price of your safety?

Until recently, these were the only two options for controls contractors; however a recent innovation from Setra Systems will change the way controls contractors can purchase and install current switches. Setra's new Sure-Set Split Core Current Switch (Model SSC) offers all of the same cost savings associated with the adjustable current switch without compromising the safety of the installer. Each Sure-Set (four models) has nine pre-configured set-points, allowing the installer to safely match the settings of the switch to the rating of the motor and complete the installation on a cold circuit, eliminating the need to make any adjustments in the vicinity of a live enclosure.

Most motors where these switches are installed are rated in horsepower (hp) rather than amps. Calculations can be time consuming if the installer needs to match the amp settings on the switch with the hp settings on the motor. The Sure-Set is calibrated in horsepower, with a scale that covers the most common motors which saves the installer time because there is no need to make any calculations. The scale selector also has mechanical detents to assure the installer that the correct range has been selected.

The Sure-Set is the answer to the problems of every controls contractor. Not only does it solve your inventory and safety issues, you can also save time on installation because there is no need to wear a PPE suit. The Sure-Set is a contractor's best opportunity to save money on installation, inventory and safety. Ditch the suit, cut your install time and put the savings back in your wallet.

Sure-Set Current Switch		
Safety	Inventory	Installation Time
✓	✓	✓