

sprecher + schuh



introducing the latest in communication technology:

cep7-erid **i**ntelli button

THE **i**NTELLIGENT WAY TO COMMUNICATE WITH A CEP7

Sprecher + Schuh is introducing the CEP7-ERID Remote Indication Display “Intelli-button”. This new Intelli-button is the latest technology in communicating with the CEP7 solid state overload relay thru side mount modules. It provides convenient up-to-date notifications on the CEP7’s status as well as easy accessibility to reset the overload relay. The compact module is Type 4/4X/12/13 rated and takes very little room on the front of a panel fitting snugly in a standard 22mm hole. Plus! The Intelli-button allows you to safely identify the reason for fault condition and reset without opening the panel door and having to loring out the OSHA required arc flash suit.



communication with
cep7 overload relay
side mounted modules



cep7 + side module



erid Intelli-button



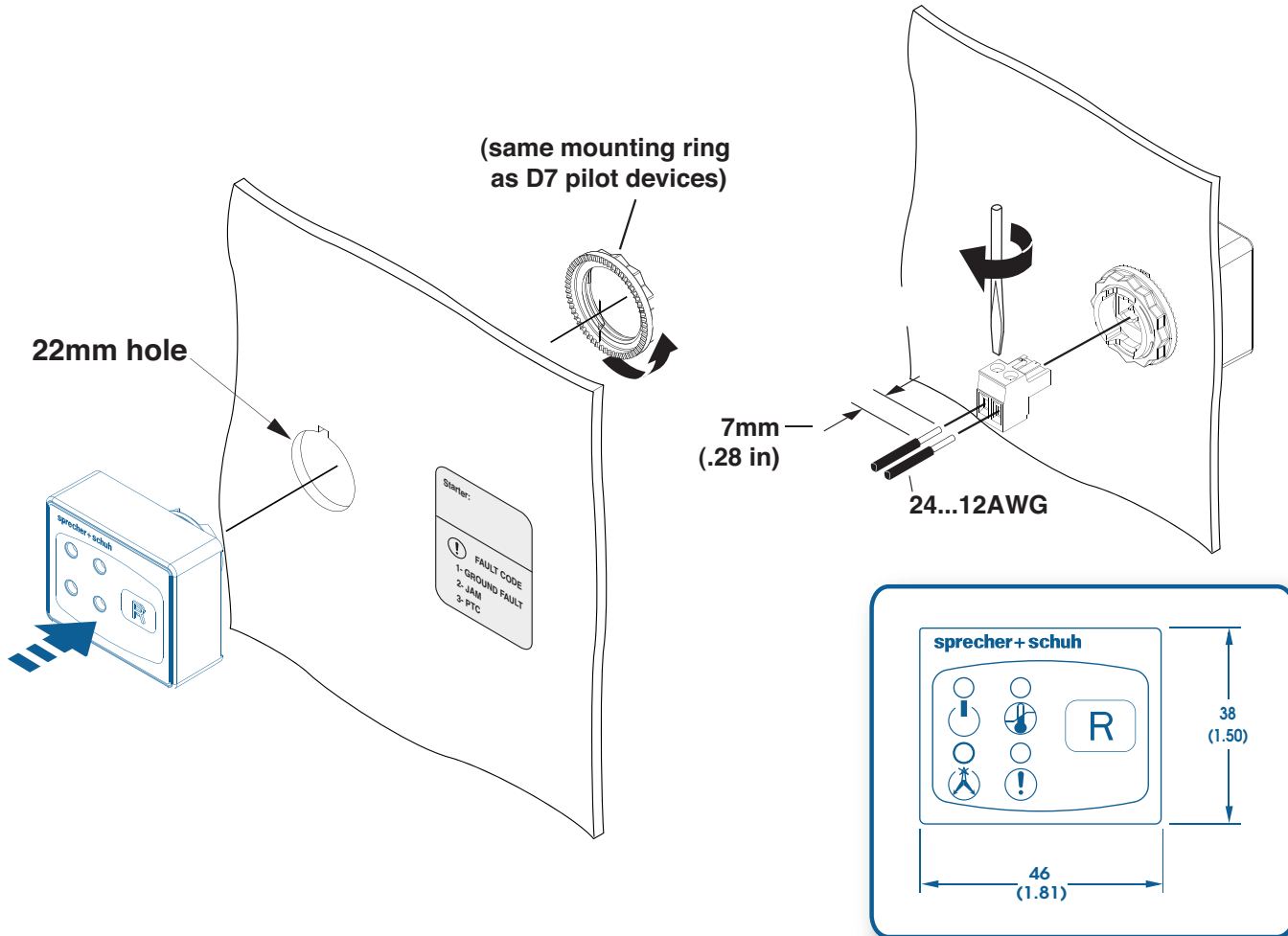
small, compact design
with easy-to-read led indicators



UL Type
4/4X/12/13
rated housing
(IP65/6)

- Display Status indicator
 - Green LED Flash indicates side mount module is powered and functional.
 - Green LED Solid indicates side mount module is powered and functional and motor current is flowing.
 - Red Solid indicates there is a hardware fault.
- Overload Condition indicator
 - Red LED Solid indicates a trip due to an overload condition.
 - Yellow LED Flash indicates an overload condition is impending (>110%).
- Remote Reset
 - Electrically reset the overload relay.
- Module Fault indicator
 - One red LED Flash indicates a ground fault trip occurred.
 - Two red LED Flashes indicates a jam trip occurred
 - Three red LED Flashes indicates a PTC trip occurred.
- Phase Loss indicator
 - Red LED Solid - a phase loss trip occurred.

simple installation



MODULES FOR ADDITIONAL PROTECTION

The CEP7-ERID Intelli-button works with a variety of side mount modules providing additional motor protection functionality traditionally found only on more expensive models. These side modules mount to a CEP7(S)-EE...solid state overload relay which then communicates to the Intelli-button through a simple twisted pair wire.

- **CEP7-ERR Remote Reset Module:**
provision for reset after trip from a remote pilot device with automatic or manual reset mode and single or 3-phase operation
- **CEP7-EJM Jam Protection and Remote Reset Module (series B):**
provides adjustable Jam set points and trip delay plus remote reset
- **CEP7-EGF Ground Fault Protection and Remote Reset Module:**
provides adjustable set points for ground fault trip protection of equipment plus remote reset
- **CEP7-EGJ: Ground Fault/Jam Protection and Remote Reset Module:** combines all three features as described above
- **CEP7-EPT Thermistor (PTC)Relay and Remote Reset Module:**
manages thermistor sensor signals from the motor



side module connection to intelli-button



the basics: standard side modules



CEP7-ERR: Remote Reset Module

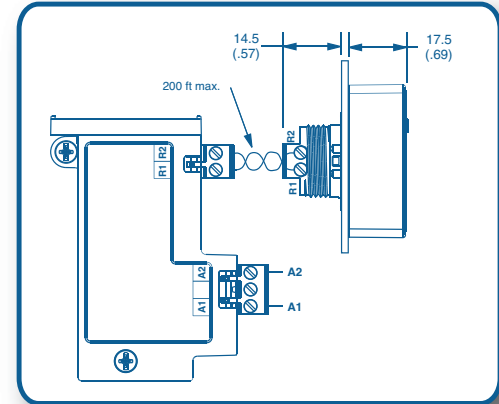
Side module connects to a CEP7-ERID (as shown to right)

- or connect to a D7 pilot device reset pushbutton

Dip switch adjustable reset mode & type

- Automatic or Manual reset mode
- 1- or 3-Phase relay type operation

Provision for reset after trip from Intelli-button or remote pilot device



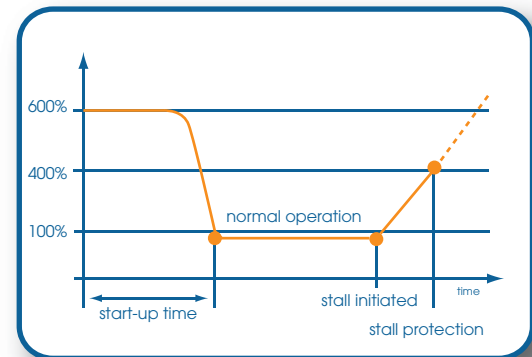
CEP7-EJM: Jam Protection and Remote Reset Module

The Jam module can help you control applications that involve frequent overload and locked rotor condition like mixers, crushers, cranes, saws and conveyors.

Dip switch adjustable Jam Protection

- Jam set points - 100%, 125%, 150%, 200%, 300%, 400% or 600% FLA
- Trip delay - 0.1, 0.5, 1, 2, 3, 4, 5, or 10 sec.

Provision for reset after trip from Intelli-button or remote pilot device



The Jam Module contains a unique circuit that monitors motor inrush current. The jam circuit is inhibited during inrush until current falls below 125% on start-up.

GROUND FAULT PROTECTION FOR YOUR MOTORS

CEP7-EGF and CEP7-EGJ:

Ground Fault, Jam Protection and Remote Reset Modules

The CEP7-EGF and CEP7-EGJ side modules provide additional protection against ground fault trips. Experts seem to agree that approximately 80% of all short-circuit faults start as low level arcing ground fault. Early detection of a ground fault problem can avoid catastrophic failure at the height of production.

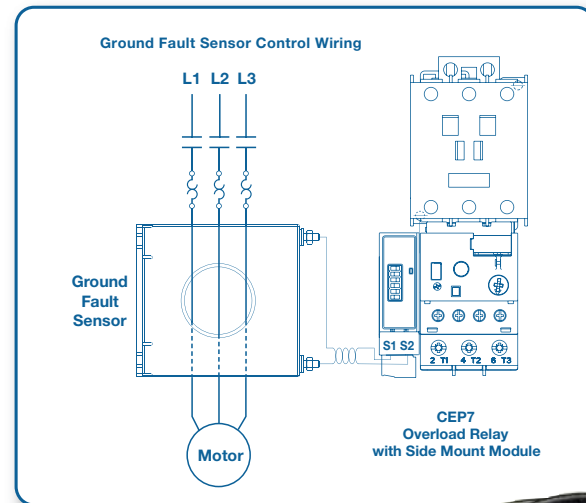
CEP7-EGF Ground Fault Module	CEP7-EGJ Ground Fault/Jam Module
<ul style="list-style-type: none">Dip Switch adjustable	<ul style="list-style-type: none">Dip Switch adjustable
GF current range set points	GF current range set points
20...100mA	20...100mA
100...500mA	100...500mA
0.2...1.0A	0.2...1.0A
1.0...5.0A	1.0...5.0A
GF Trip level 20% - 100%	GF Trip level 20% - 100%
<ul style="list-style-type: none">LED status indication	<ul style="list-style-type: none">LED status indication
<ul style="list-style-type: none">Provision for reset after trip from Intelli-button or remote pilot device	<ul style="list-style-type: none">Jam trip when the motor current exceeds 400% FLA setting when enabled.
	<ul style="list-style-type: none">Provision for reset after trip from Intelli-button or remote pilot device



why you need ground fault protection

Ground faults often start from a break in insulation or perhaps simply from excess condensation of water on motor windings during down time. The ground fault arc will grow into a serious phase-to-phase fault finally reaching a magnitude requiring detection and response from the short-circuit device. Once the short-circuit device has tripped the damage to equipment and possibly personal injury has already occurred. Applications can include dirty water or clean water treatment plants, wash down areas of industrial plants, pumping applications and of course marine applications.

Ground fault current is sensed by passing all lines carrying current to and from a motor through the window of a special current transformer called a ground fault sensor. If all the current to the motor returns through the lines in the sensor window, no significant current will be induced in the sensor secondary. If, however, ground fault current returns via a path external to the sensor, such as via the conduit walls, a current will be induced in the sensor secondary. This current will be sensed and amplified by solid state circuits. If the ground fault current is larger than the selected ground fault trip level of the overload relay, the overload relay will trip.



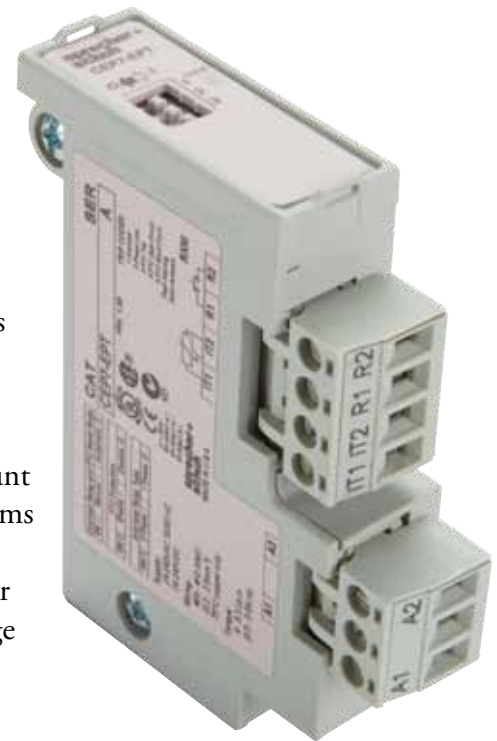
PROTECTING YOUR MOTOR FROM THERMAL OVERHEATING

CEP7-EPT: Thermistor (PTC) Relay and Remote Reset Module

The CEP7-EPT is a side-mounted device designed to provide increased motor protection by interrupting the change in PTC resistance. This provides added protection in situations involving obstructed cooling path and high ambient temperature which would not be detected simply by monitoring current.

Electric motors represent a significant investment and losing them to overheating in a process critical application is just not an option. Positive Temperature Coefficient resistors are often installed in the stator windings of the motor to sense the motor temperature. A PTC resistor, otherwise known as a thermistor, increases its resistance with an increase in temperature. The average overload relay does not accept the signal from one or a chain of up to six thermistors.

A high temperature trip occurs when resistance reaches 3400 ohms. This side mount module detects a PTC chain short circuit when resistance drops to less than 20 ohms as well as a PTC open circuit when resistance jumps to 20K ohms. If down time means loss of production then you shouldn't be without thermistors in your motor and a CEP7-EPT to provide that extra measure of protection from thermal damage to your motors.



ORDER AN EXTRA ERID VALUE KIT

CEP7-ERID Value Kits

Intelli-buttons plus your choice of the side-mounted modules can be ordered as (a) individual components, (b) the combination of necessary parts can be ordered as a kit or (c) you can have these kits installed in any control panel built by Sprecher + Schuh that contains a CEP7(S)-EE_ overload relay. Check out our Intelli-button flyer for the Value Kit prices and ordering details.





15910 International Plaza Drive
Houston, Texas 77032