

CURRENT SWITCHES FIXED SWITCH POINT

ESOL.. ESLT....

These units are powered by induction from the monitored AC conductor which passes through the hole/core. They sense current flow and can monitor the operation/failure of fans, pumps, motors etc. Simply connect 2 wires to indicate run /fail - the normally open switch contacts close when the setpoint is exceeded. The GNG models incorporate dry contacts for true digital switching.



Hysteresis: <2% Full Scale max
 Enclosure Flammability: UL94-V0
 Input Frequency Range: 50/60 Hz
 Operating Temperature: 15 to 60°C
 RH: 5 - 90%
 Response Time: <200mS

Type	Description	Switch Rating Max	On State Volt Drop @ 24vdc @150mA	Leakage Current	Set Point	Conductor Current Input Range
ESOL-GNG-200	Solid Core	30VAC/VDC 0.5A	<0.1V	<25µA	0.75A Fixed	0.5 - 200A
ESLT-GNG-200	Split Core	30VAC/VDC 0.5A	<0.1V	<25µA	2.0A Fixed	2.0 - 200A

On State Volt Drop - amount of voltage which drops through the switch contacts when they are closed.

Leakage Current - amount of current leaked across the switch contacts when they are open.

Both factors are very small and generally insignificant for most applications.

If the conductor current is too low ie 0.5A, it can be looped through the current switch more than once ie 3 loops = 1.5A, this also divides the maximum range by 3.

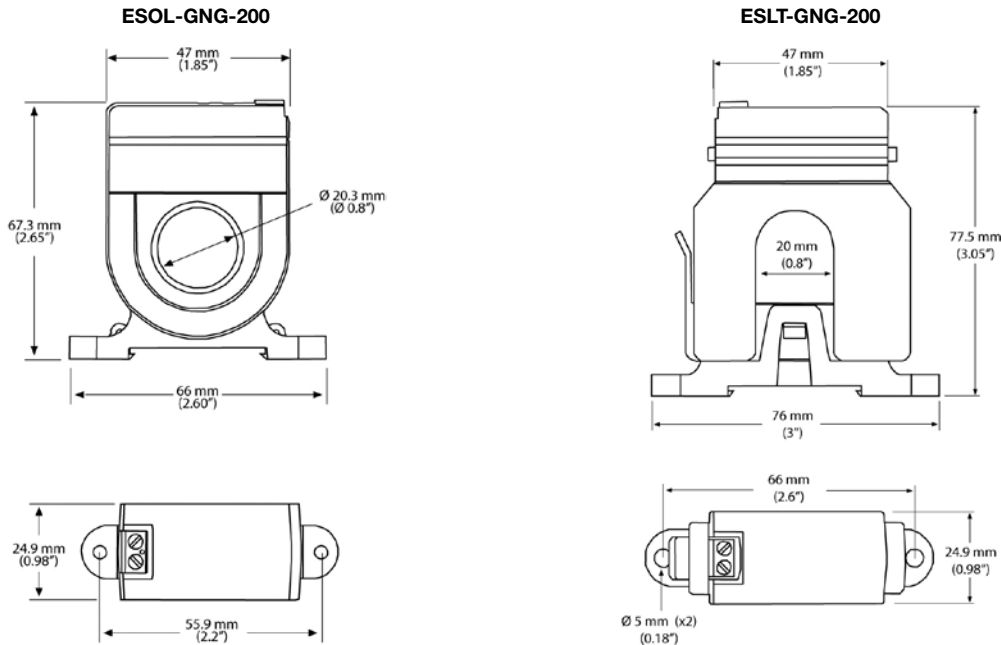
If the conductor wire is too large, or the current too high it can be wired to the primary side of a current transformer, the secondary side then passes through the current switch hole/core.

Easy to use switches, for flow/no flow applications with dry contacts for true digital switching.

Do NOT exceed the voltage or current ratings as this will cause damage to the device.

Normally Open switch contacts close when the current flow exceeds the set point.

DIMENSIONS



INSTALLATION: Ensure core is clean at time of installation as dirt/foreign particles may prevent correct operation. The split core device can be opened by using a large blade screwdriver positioned in the centre of the latch. When closing the split core ensure that the two halves are properly aligned. Pass the live conductor/wire through the core.

The solid state switch contacts can only be checked for operation when the switch circuit power is applied.

Under current indication : Belt, fan or pump failure : For normal running the current should be above the set point & the switch contact closed. If the belt is broken, fan or pump stopped or the electrical supply fails the switch contact will open.

Over current indication : Locked rotor. For normal running the current should be below the setpoint and the switch contact should be open. When current exceeds the set point the switch contact closes providing indication of current flows above the normal full load amps.

CURRENT SWITCHES / SENSORS

CURRENT SWITCHES ADJUSTABLE SET POINT

ESOL.. ESLT..

These devices are powered by induction from the monitored AC conductor which passes through the hole/core. They sense the current flow and can thereby monitor the operation/failure of fans, pumps, motors, etc.

The Normally Open triac switch closes when the current flow exceeds the set point. The switch point is adjustable via a multi turn pot.



Hysteresis: <2% Full scale max
 Enclosure Flammability: UL94-V0
 Operating Temperature: 0 to 70°C
 Response Time: <200mS

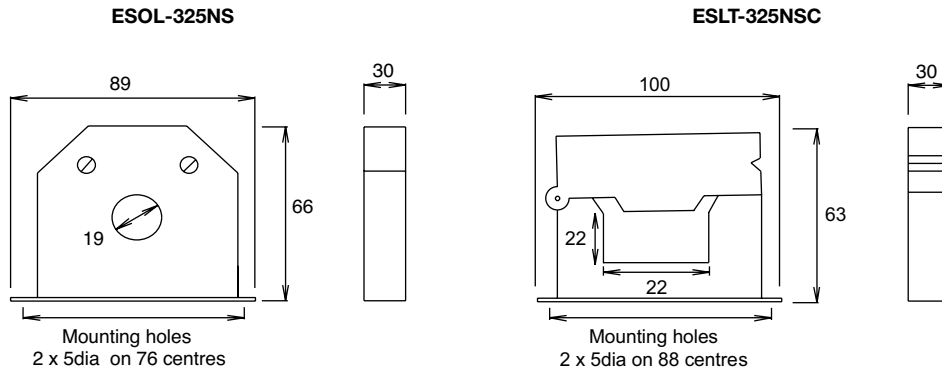
Type	Description	Switch Rating Max	Input Frequency Range	Leakage Current	Set Point	Conductor Current Input Range
ESOL-325NS	Solid Core	250VAC 1A	10 - 400Hz	<1mA	Adj	1.25-6, 6-40, 40-200A
ESLT-325NSC	Split Core	250VAC 1A	10 - 400Hz	<1mA		1.5-200A

On State Volt Drop - amount of voltage which drops through the switch contacts when they are closed.

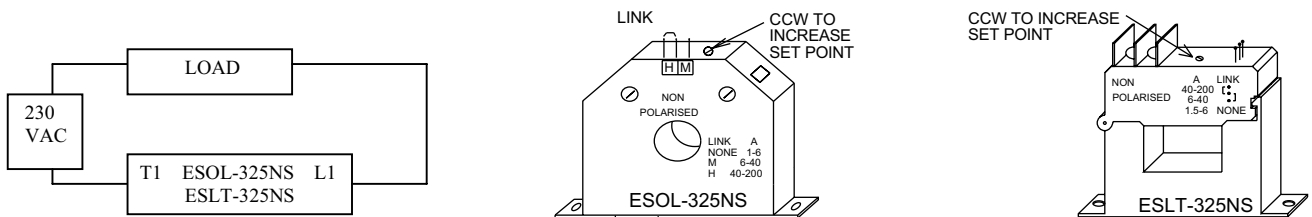
Leakage Current - current leaked across the switch contacts when they are open.

Both factors are very small and generally insignificant for most applications.

DIMENSIONS



WIRING:



INSTALLATION:

Ensure core is clean as dirt/foreign particles may prevent correct operation. If the conductor current is too low ie 0.5A, loop through the sensor more than once, ie 3 loops = 1.5A, this also divides the maximum range by 3. If the conductor wire is too large, or the current too high it can be wired to the primary side of a current transformer, the secondary side then passes through the hole/core.

Do NOT exceed the voltage or current ratings as this will cause damage to the device. Pass only the live conductor/wire through the core. Ensure link/jumper is in the correct position before switching the power on. The switch contacts are non-polarised.

The solid state switch contacts can only be checked for operation when the switch circuit power is applied.

Under current indication : Belt, fan or pump failure : For normal running the current should be above the set point & the switch contact closed. If the belt is broken, fan or pump stopped or the electrical supply fails the switch contact will open.

Over current indication : Locked rotor. For normal running the current should be below the setpoint and the switch contact should be open. When current exceeds the set point the switch contact closes providing indication of current flows above the normal full load amps.

SET POINT ADJUSTMENT:

Factory set to minimum (adjustment fully clockwise) To increase set point, turn monitored load on, (the NO contacts will close) turn the adjustment counter-clockwise until the switch contacts open as indicated by the status LED or a voltmeter connected to the switch. Then turn adjustment clockwise until the LED comes back on or voltmeter is seen indicating contacts closed. LED is not fitted on all types. The adjustment should then be turned slightly clockwise past this point to ensure current fluctuations do not cause false conditions.

CURRENT SENSORS 0-10VDC / 4-20mA

ESOL.. ESLT..

■ These devices are powered by induction from the monitored AC conductor which passes through the hole/core. A 0-10Vdc or 4-20mA output signal linear across the range is produced. They sense the current flow and can thereby monitor the operation/failure of fans, pumps, motors etc.



Enclosure Flammability: UL94-V0
 Response Time 500ms
 Operating Temperature: -15 to 50°C
 Operating Humidity: 0 to 95% non cond.
 Can be DIN rail mounted

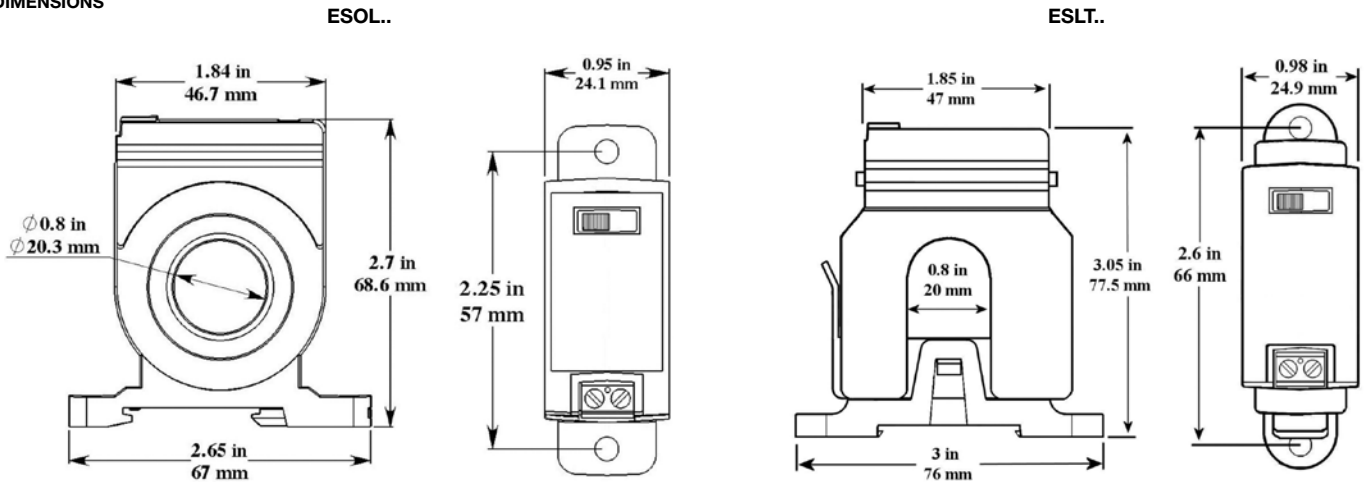
Type	Description	Output	Powered by	Accuracy	Frequency	Input range (selectable)	Max overload current
ESOL-651-R1	Solid core	0-10VDC	self powered	+/-2%FS	50/60Hz	0-10A,20A,50A	100A
ESOL-651-200	Solid core	0-10VDC	self powered	+/-2%FS	50/60Hz	0-200 (fixed range)	225A
ESOL-675-R1	Solid core	4-20mA	24VDC loop	+/-2%FS	20/400Hz	0-10A,20A,50A	3 x Range
ESOL-675-R2	Solid core	4-20mA	24VDC loop	+/-2%FS	20/400Hz	0-50A,100A,150A	2 x Range
ESLT-651-R1	Split core	0-10VDC	self powered	+/-2%FS	50/60Hz	0-20A,40A,60A	100A
ESLT-651-R2	Split core	0-10VDC	self powered	+/-2%FS	50/60Hz	0-50A,100A,150A	150A
ESLT-675-R1	Split core	4-20mA	24VDC loop	+/-2%FS	20/400Hz	0-10A,20A or 50A	3 x Range
ESLT-675-R2	Split core	4-20mA	24VDC loop	+/-2%FS	20/400Hz	0-50A,100A,150A	2 x Range

Select the range according to the conductor current.

If the conductor current is too low ie. 0.5A then loop through the sensor more than once ie. 3 loops = 1.5A and will divide the maximum range by 3.

If the conductor wire is too large, or the current too high it can be wired to the primary side of a current transformer, the secondary side wire is then passed through the sensor core. Do NOT exceed the voltage or current ratings as this will cause damage to the device.

DIMENSIONS



WIRING:

Set the switch to the required range

INSTALLATION:

Ensure the core is clean at the time of installation as dirt/foreign particles may prevent correct operation.

Ensure link/jumper is in the correct position before switching the power on. Pass the live conductor/wire through the core.

OUTPUT 0-10VDC : If the range is 0-10 amps the output will be 0-10vdc linear over 0-10 amps.

OUTPUT 4-20mA: If the range is 0-10 amps the output will be 4-20mA linear over 0-10 amps.

Min cable size 7/0.2mm Max cable length 100m.

Screened cable is highly recommended.

Keep away from power cables/units which may cause interference.

The screen should be earthed at controller end only.