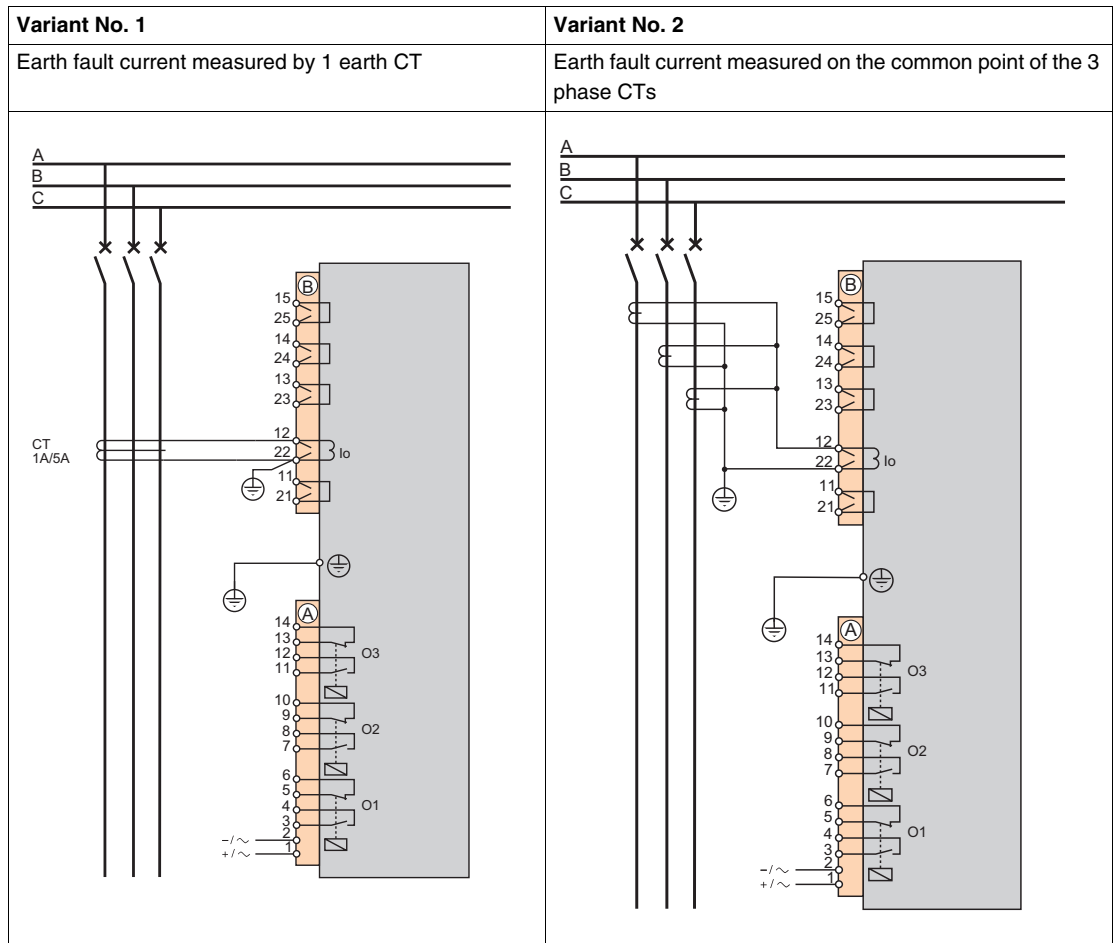


Sepam Series 10 N 11•

Sepam series 10 N 11• relays measure the earth fault current, either:

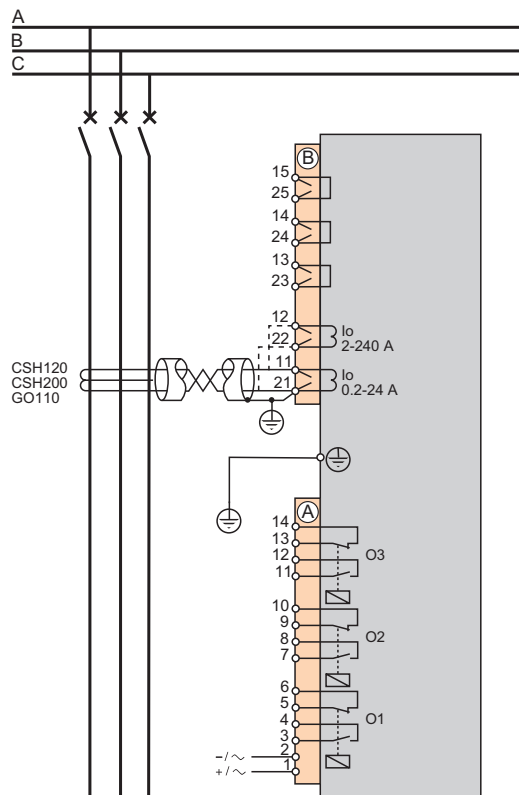
- By 1 earth CT
- On the common point of the 3 phase CTs



Sepam Series 10 N 13•

Sepam series 10 N 13• relays measure the earth fault current using 1 CSH120, CSH200 or GO110 core balance CT, connected to either of the following:

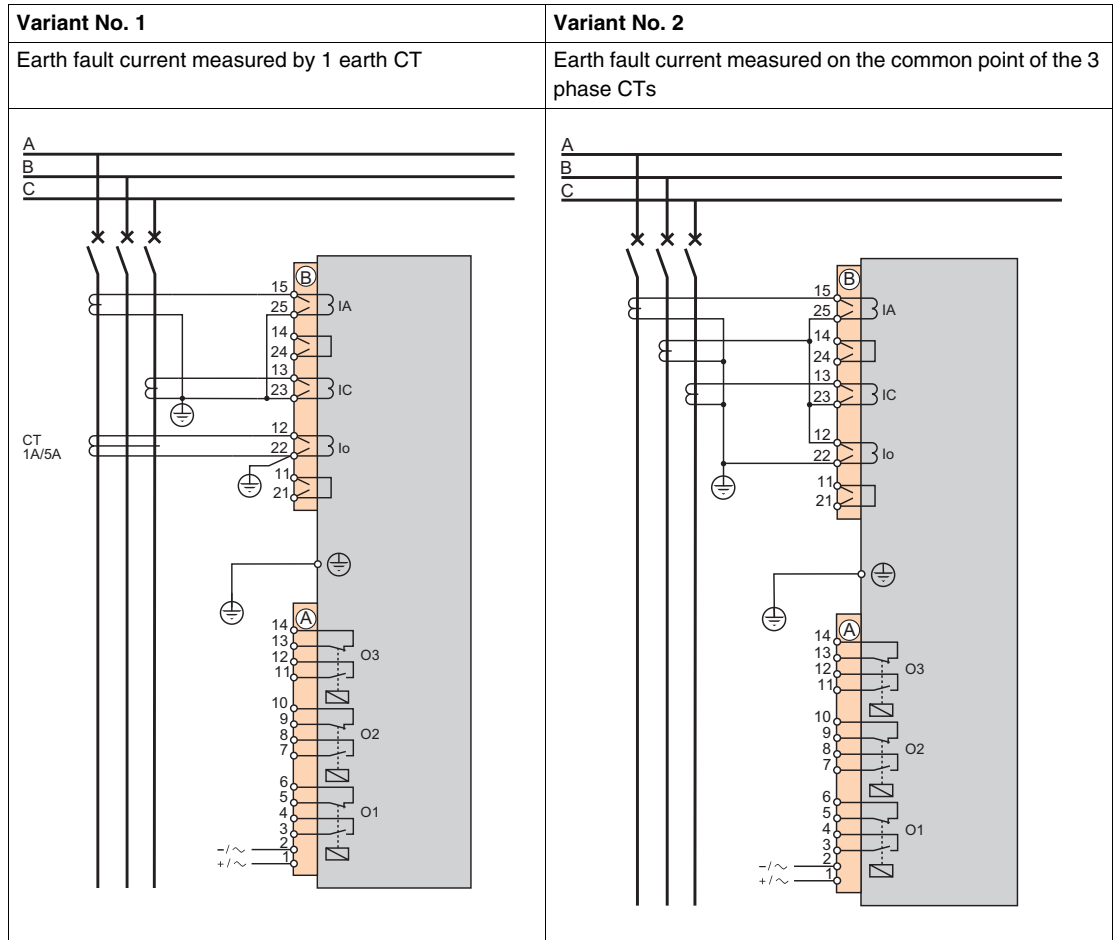
- The 2 - 240 A input
- The 0.2 - 24 A input



Sepam Series 10 B 31•

Sepam series 10 B 31• relays measure 3 currents:

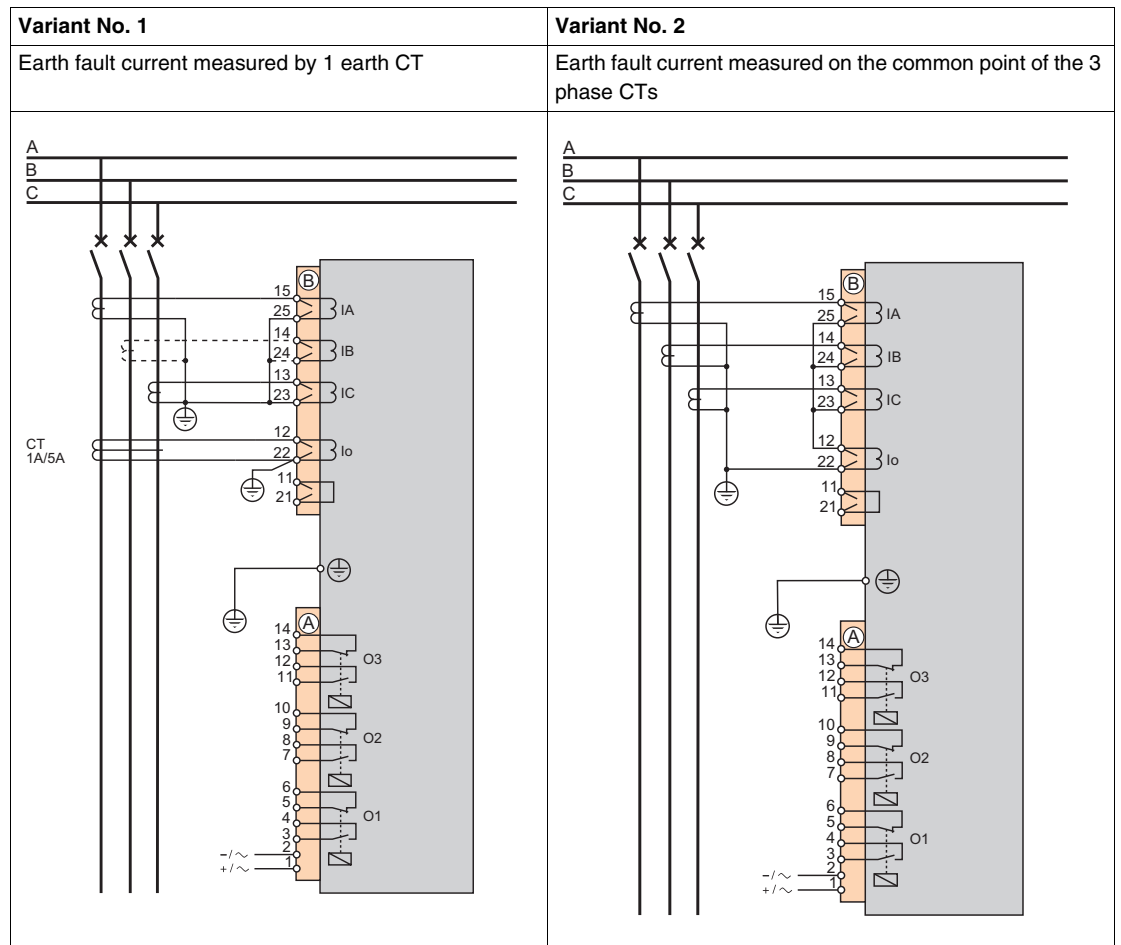
- 2 phase currents measured by 2 phase CTs
- 1 earth fault current measured either:
 - By 1 earth CT
 - On the common point of the 3 phase CTs



Sepam Series 10 B 41• and Series 10 B 42•

Sepam series 10 B 41• and series 10 B 42• relays measure the following currents:

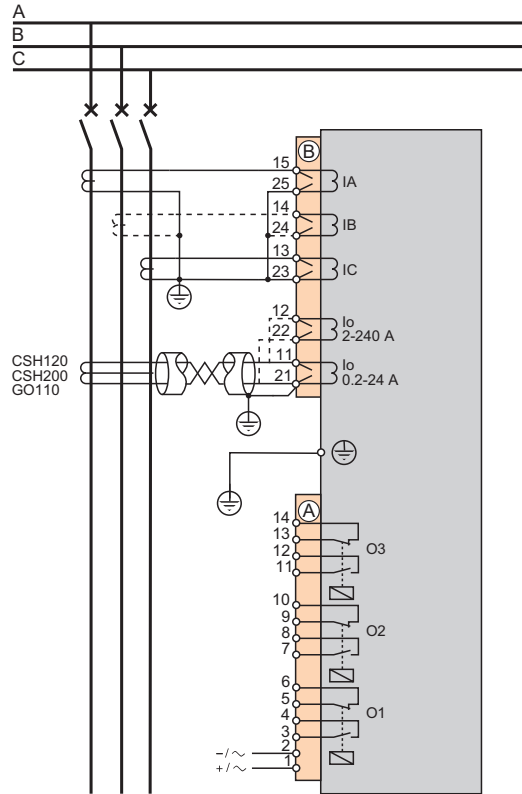
- Phase currents measured by 2 or 3 phase CTs
- 1 earth fault current measured either:
 - By 1 earth CT
 - On the common point of the 3 phase CTs



Sepam Series 10 B 43•

Sepam series 10 B 43• relays measure the following currents:

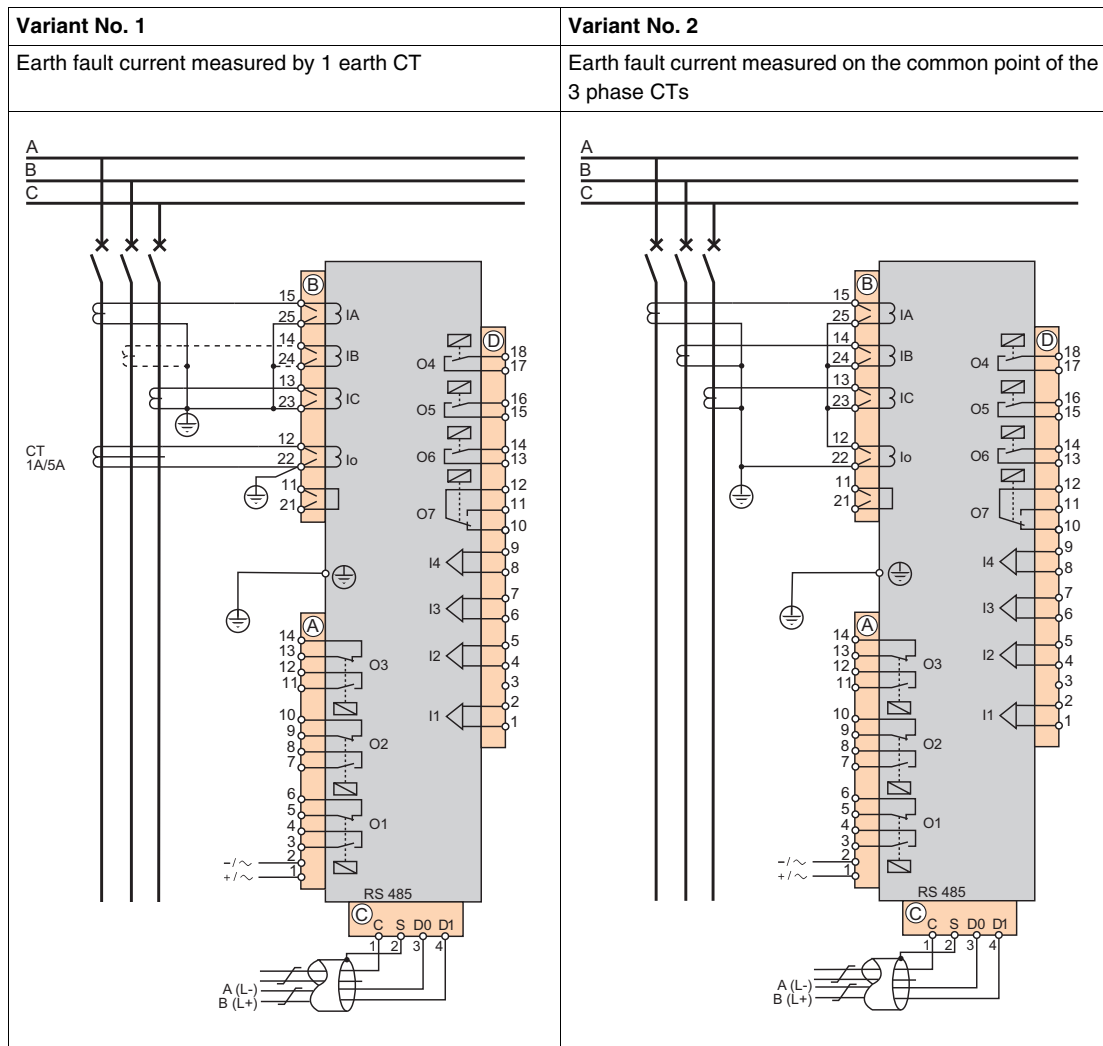
- Phase currents measured by 2 or 3 phase CTs
- Earth fault current measured by 1 CSH120, CSH200 or GO110 core balance CT, connected to either of the following:
 - The 2 - 240 A input
 - The 0.2 - 24 A input



Sepam Series 10 A 41• and Series 10 A 42•

Sepam series 10 A 41• and series 10 A 42• relays measure the following currents:

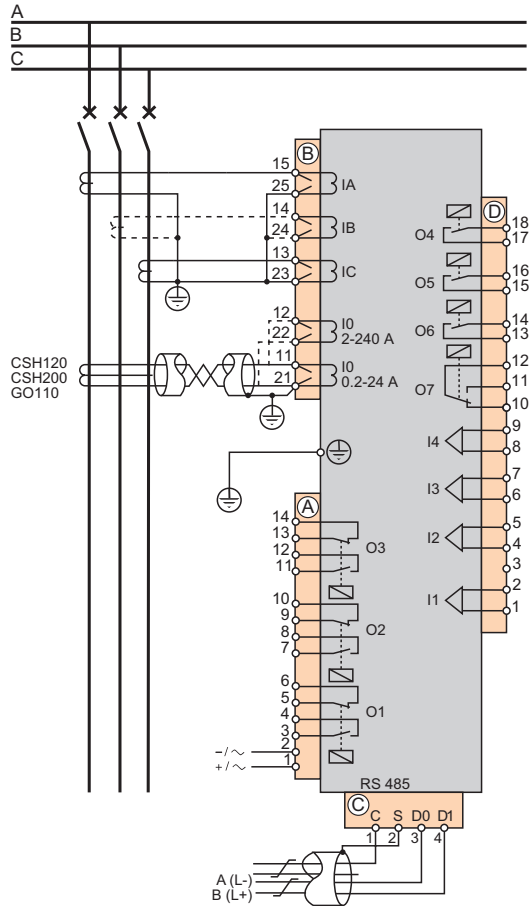
- Phase currents measured by 2 or 3 phase CTs
- 1 earth fault current measured either:
 - By 1 earth CT
 - On the common point of the 3 phase CTs



Sepam Series 10 A 43•

Sepam series 10 A 43• relays measure the following currents:

- Phase currents measured by 2 or 3 phase CTs
- Earth fault current measured by 1 CSH120, CSH200 or GO110 core balance CT, connected to either of the following:
 - The 2 - 240 A input
 - The 0.2 - 24 A input



Connecting Current Transformers (CTs)

Connecting CTs

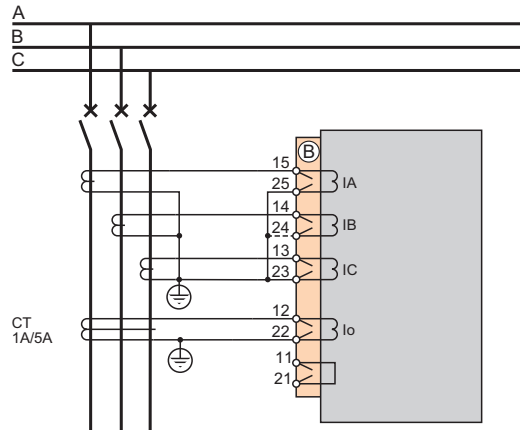
Standard 1 A or 5 A current transformers (CTs) can be connected to Sepam, to measure phase currents and the earth fault current.

To determine the CT size, refer to *Dimensioning the CTs*, page 44.

Connection Example

The diagram below shows the connection of:

- 3 phase CTs to measure phase currents
- 1 earth fault CT to measure the earth fault current



Earth CT

The earth fault CT must only measure the sum of the 3 phase currents. The current circulating in the medium voltage cable shielding must therefore be excluded. To avoid the current circulating in the cable shielding being detected by the CT, its component must be canceled by making this current circulate a second time through the CT in the opposite direction.

This is achieved by connecting the shields coming out of the cable ends to earth via a wire that crosses the CT. This wire must not come into contact with any part connected to earth before it passes through the CT, otherwise use an insulated wire.

