

Application: Chair Lift

Introduction

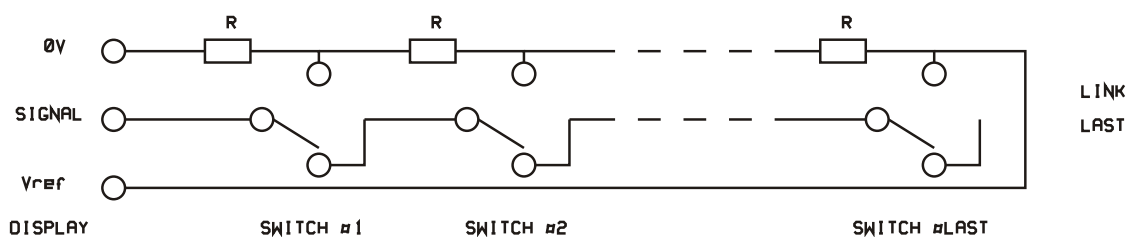
Using a panel meter to display which emergency switch has been pulled

Operation

In this case there are 100 switches connected to the idlers on the chain drive. The model 4001 process indicator is used in the “pot” input mode. The 4001 provides a 2.5V reference which is connected to the last switch. A 1K resistor is connected in series with each switch. The resistor value is chosen to be 50% larger than the cable resistance. When all the switches are off the indicator reads 0v and displays zero. When switch one turns on the indicator reads 1/100 of 2.5v and displays one. When switch two turns on the indicator reads 2/100 of 2.5v and displays two. If two switches are on, the switch number closest to the 4001 will be displayed. The switch number can be re-transmitted with an analogue output, in this case the output will jump in steps of 1/100 of the output range.

Note : The panel meter input impedance must be ten times the total resistance

Schematic



P O Box 418, Honeydew 2040 South Africa
21 Precision Street, Kyaland Randburg.
Telephone: +27 11 462-1920
Telefax: +27 11 462-1958
email: info@instrotech.co.za
web: www.instrotech.co.za