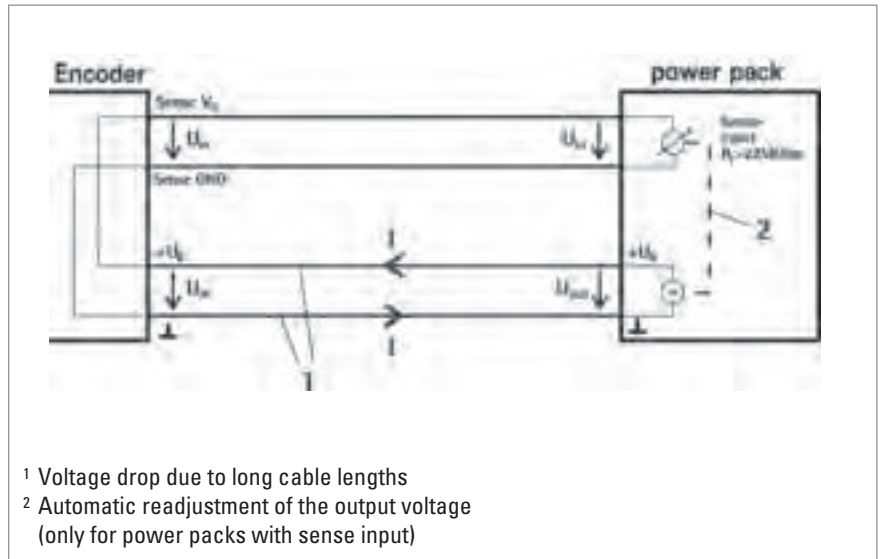


## Basics of Incremental Encoders

### Outputs - Sense at 5 V RS 422 (T)

#### OUTPUT CIRCUIT



#### FUNCTION

The sense wires enable measuring of the actual encoder supply voltage (compensates for voltage drops due to supply current and cable resistance).  
 Due to the voltage drop in the cables and the voltage supply, the encoder input voltage  $U_{in}$  is less than the power pack output voltage  $U_{out}$ .  
 The present input voltage  $U_{in}$  is now output to the Sense  $V_{CC}$  and Sense GND cables and returns as data to the power pack.  
 The input resistance  $R_i$  on the power pack should amount to at least 22 MΩ so that no voltage drop occurs on these cables.  
 In case of power packs with sense input, it is now possible to readjust the output voltage  $U_{out}$  automatically.