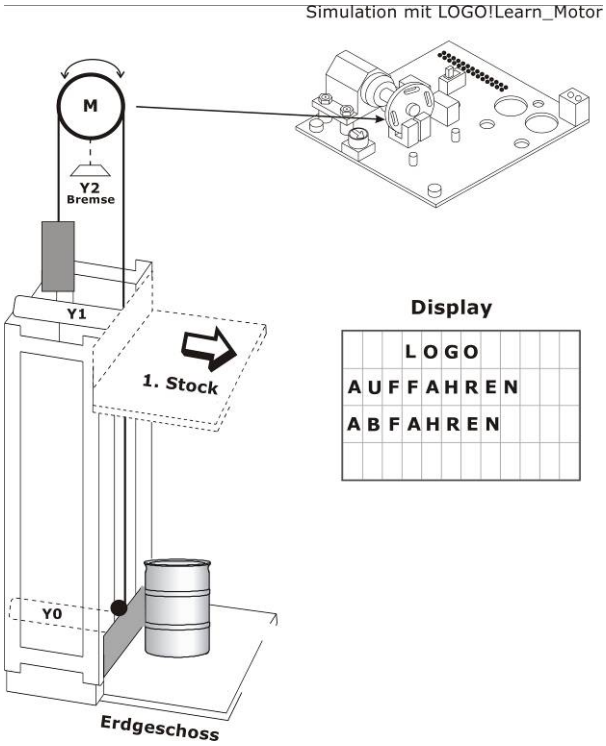
Directional rotation recognition of a drum lift

Technical drawing



Operation description

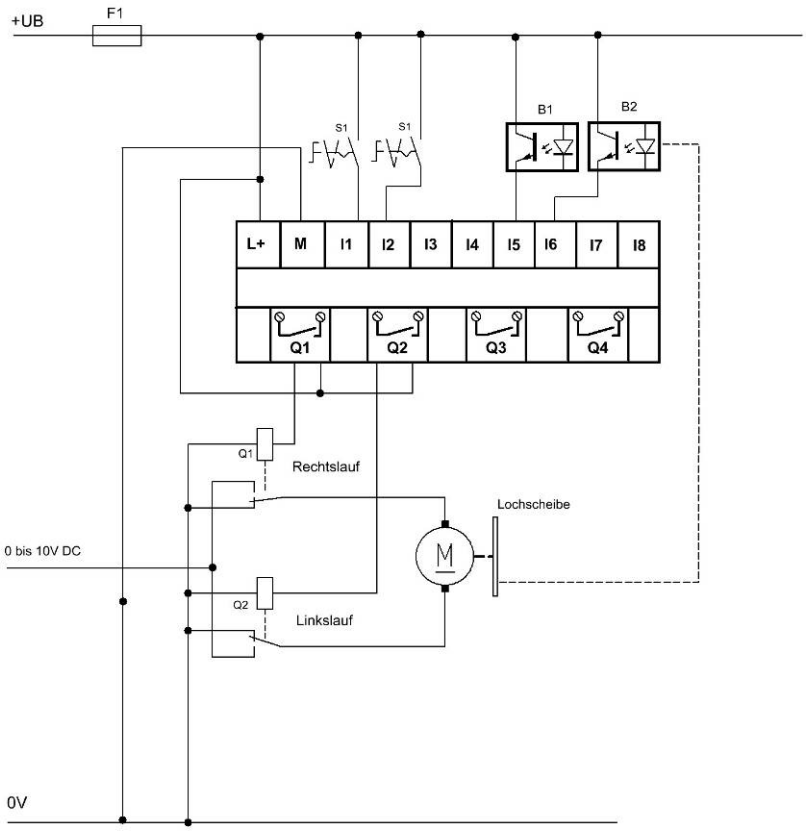
A LOGO! is used for the recognition of the motor direction on a drum lift. The up and down movement of the lift has to be transmitted to the LOGO! by means of a direction switch. The mounted display or the external display LOGO! TD shows the operator the direction of movement.

For the virtual simulation the module "LOGO!Learn_Motor" is used. With switch S1 (I1), or with the IR-remote control (button 1) the motor "upwards" is switched-on. With switch S2 (I2), or with the IR-remote control (button 2) the "LOGO!Learn_Motor" is switched over to the direction "downwards". The revolutions of the motor can be adjusted with the mounted potentiometer from 0 to max rev/min. All further functions such as the request for a different floor and brake are not taken into account in this example in order to keep a clear overview.

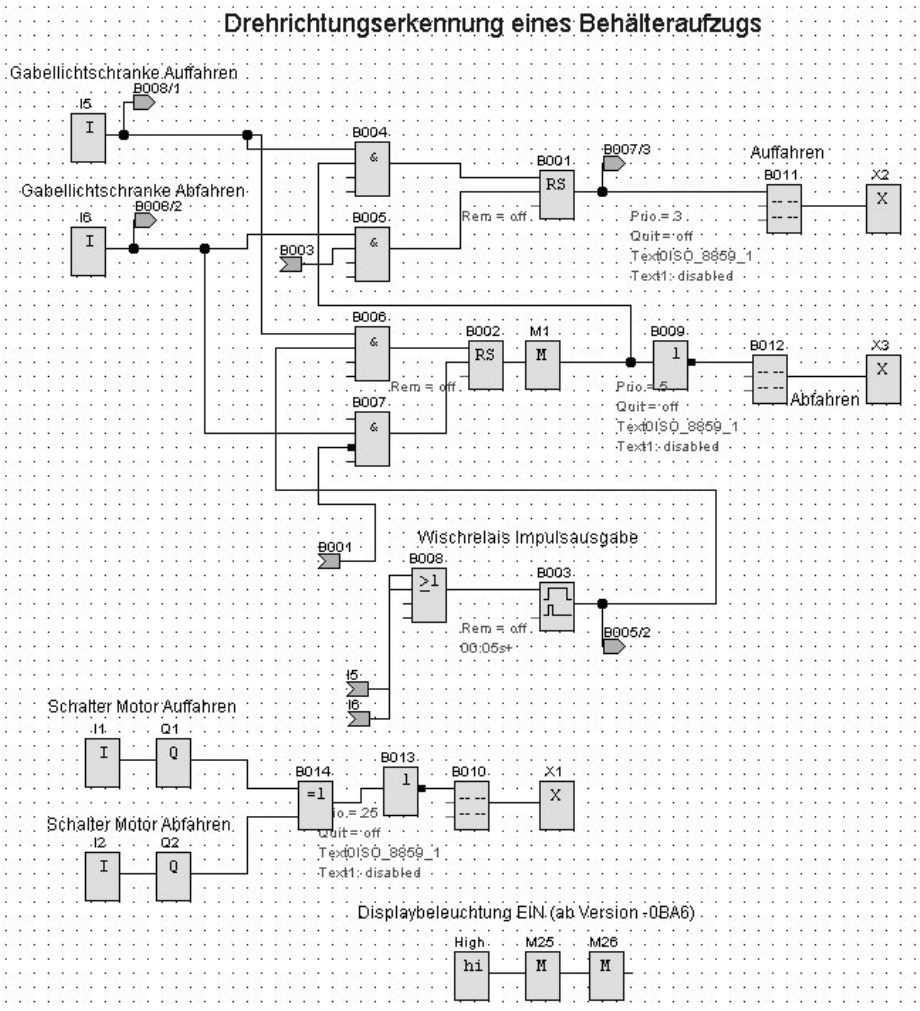
.

Correlation list		
Symbol	**Component**	**Comment**
S1	I1	Switch "make" upwards
S2	I2	Switch "make" downwards
B1	I5	Light beam switch
B2	I6	Light beam switch
K1	Q1	Relay for motor "right direction"
K2	Q2	Relay for motor "left direction"

connection to LOGO!



Function block diagram



Exercise

- Enter program according to given function block diagram (FBD) into PC and save under filename „Directional rotation recognition of a drum lift“.

- Test program with the integrated simulator according to function block diagram and ladder diagram

.

- Transfer program into LOGO! and test.