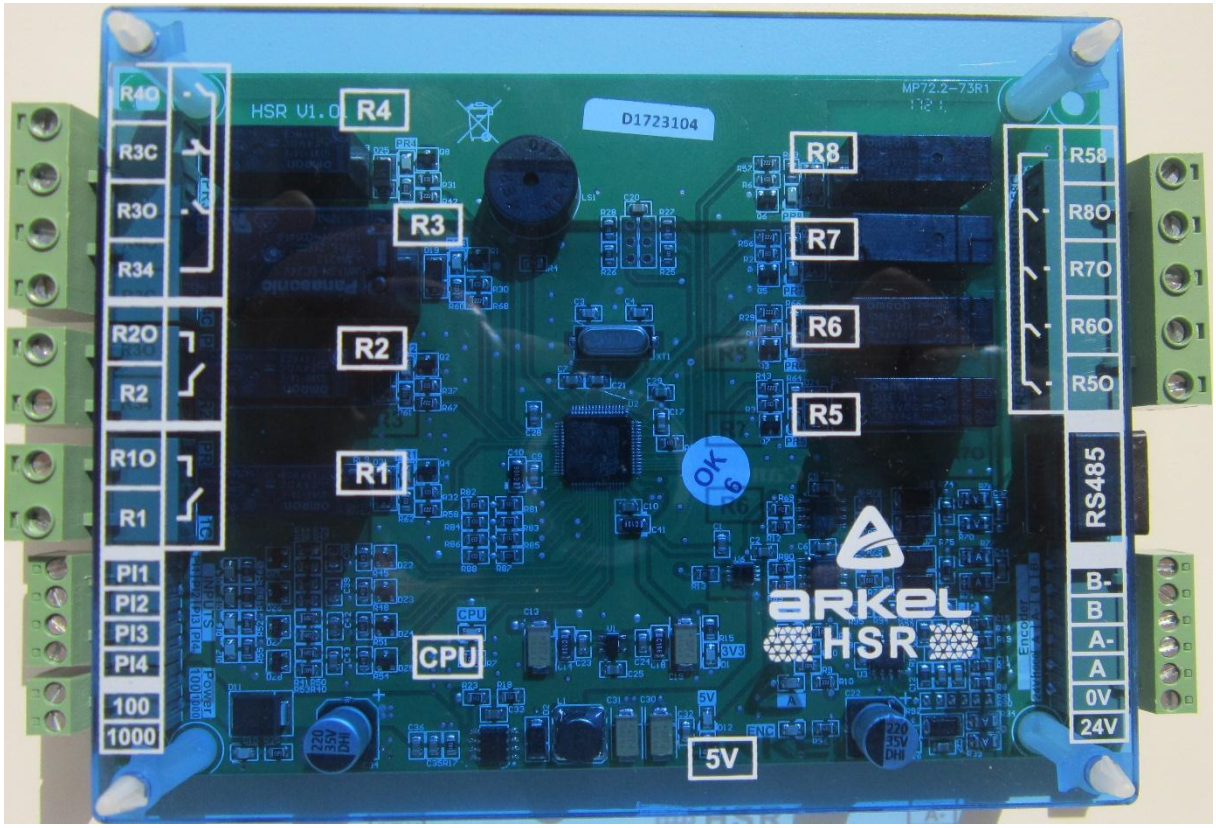
HSR



HARDWARE MANUAL

1 HSR Overview

HSR is a board which is designed to be used in hydraulic systems with ARL700. By the serial communication with ARL700 over RS485, the control of the hydraulic elevators is provided with the help of the relays on HSR.

General	
Dimensions Width × Length × Height (mm) (All female terminals are plugged in)	170 x 105 × 41
Operating temperature	0 - 60 °C
Weight	205gr.

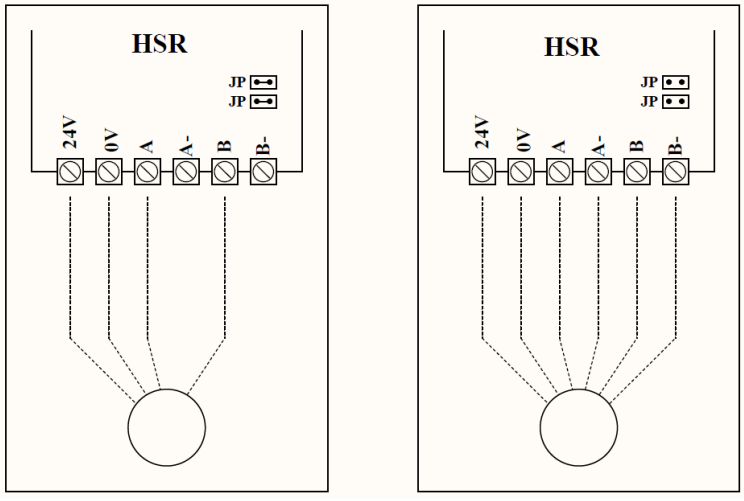
Electrical Characteristic		
Supply voltage	24VDC(18-30VDC)	
Power consumption	0.9W at 24V(Stand-by) 3.5W at 24V(Max.power consumption)	
Programmable inputs	Input current 8.5mA (at 24VDC, for 1 input)	
Relay outputs	7 pcs. 1 pc.	Switching characteristics 3A 250VAC/3A 30VDC 10A 250VAC/10A 30VDC
Enkoder	2-channel incremental (with 24V supply)	
Seri haberleşme	ARL-700	RS485

- 8 pcs. relay outputs
- 4 pcs. programmable inputs
- Incremental encoder connection
- RS485 Serial communication connection with ARL-700

2 HSR Technical Parameters

2.1 Encoder

Encoder supply is provided by HSR board itself. JP terminal on HSR board is kept as plugged at first. If the used encoder has the complement channels (A' and B'), JP jumpers should be removed and A' and B' cables of encoder should be connected to the HSR board. If encoder has 2 channels without complement outputs, JP jumpers need to be kept as plugged. The connection of incremental encoder is shown in the figure below.

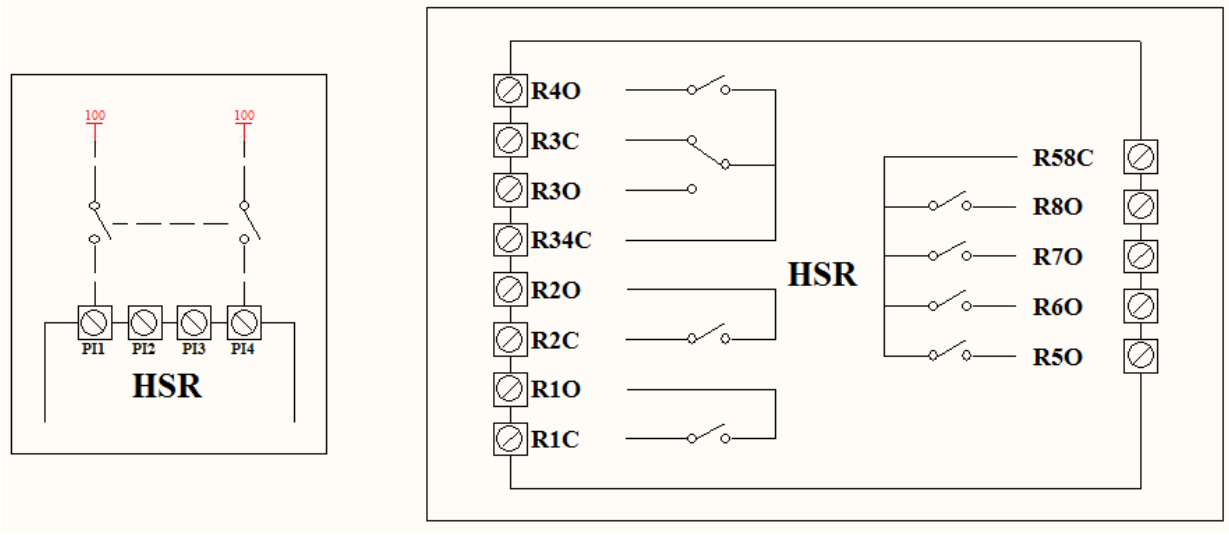


Single output Complementary output

2.2 Programmable Inputs and Relay Outputs

There are 4 pcs programmable inputs, and there are 8 pcs relay outputs on HSR board. These relays are used to control Star/Delta of Hydraulic Pump motor, and used to activate the hydraulic valves (down, up, slow, fast etc.) These relay outputs are not programmable, have their own certain functions such as;

R1 = HSV (Hydraulic Safety Valve)
R2 = RRY (Inspection speed relay)
R3 = RSD / RLV (Star-Delta Connection)
R4 = Reserved
R5 = RU2 (Up-Slow valve)
R6 = RH2 (Up-Fast valve)
R7 = RH1 (Down-Fast valve)
R8 = RU1 (Down-Slow valve)



3 Mechanical Dimensions