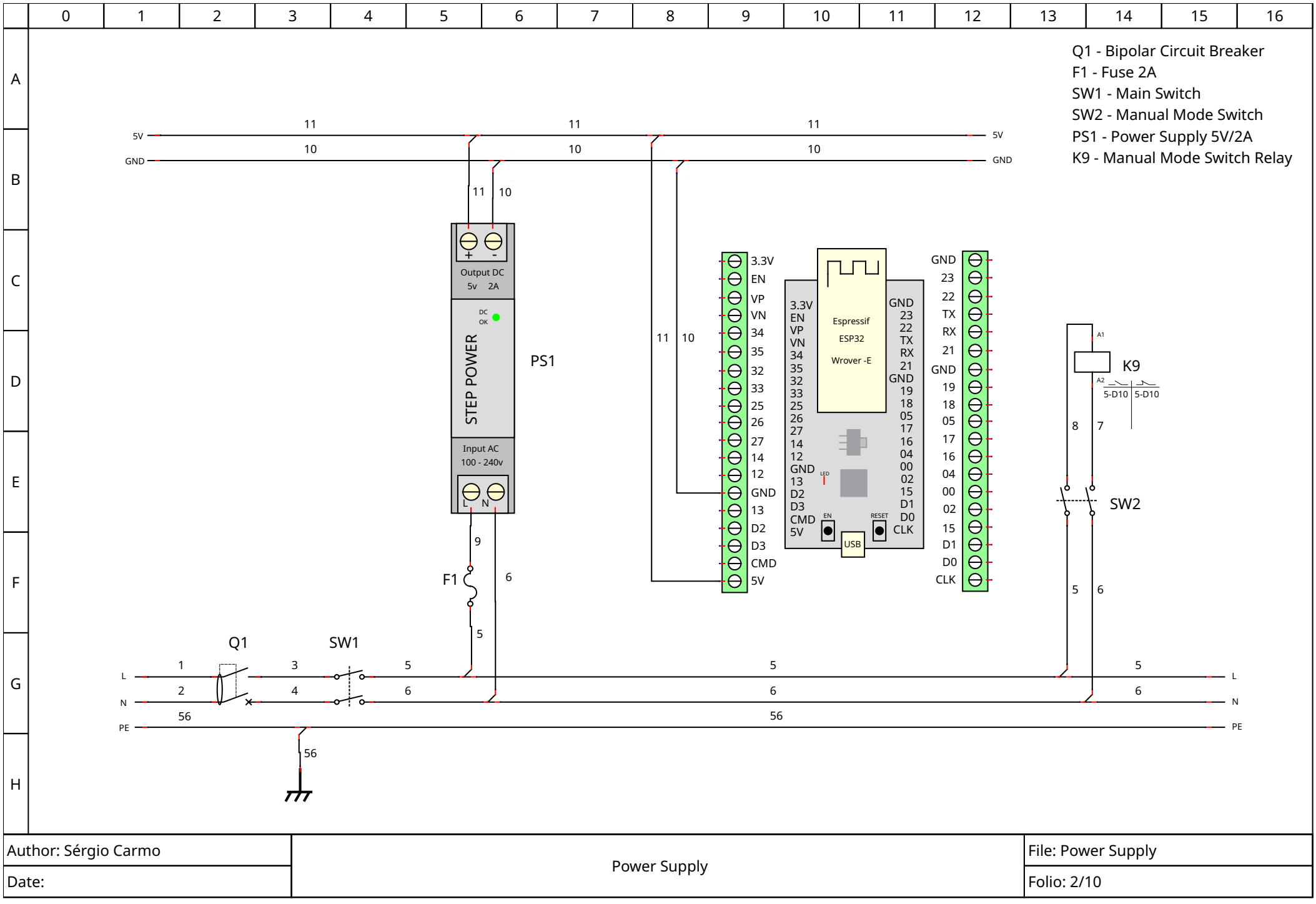
Instituto Politécnico Portalegre

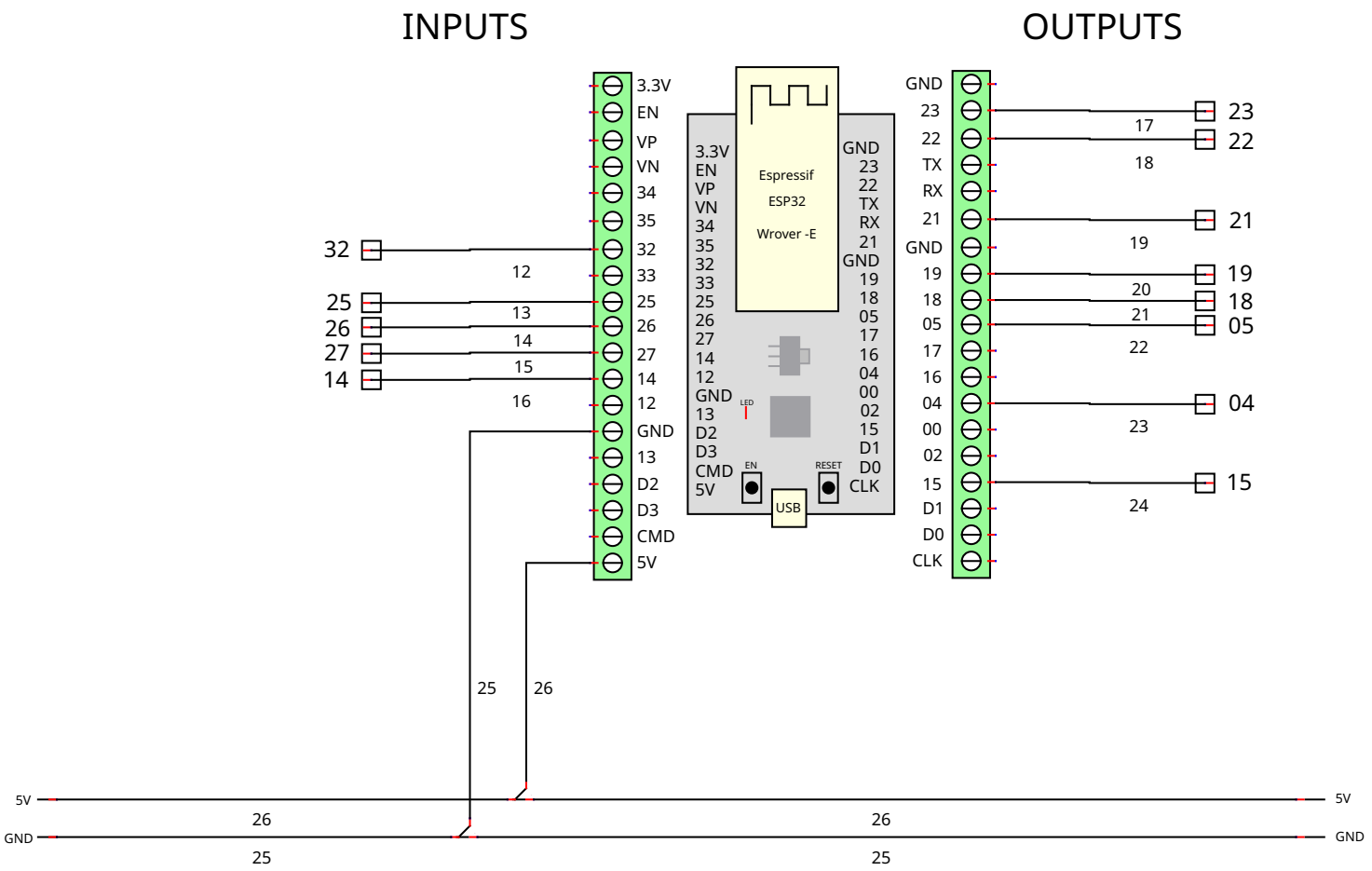
POLITÉCNICO DE PORTALEGRE
Escola Superior de Tecnologia e Gestão

Intelligent Destiller

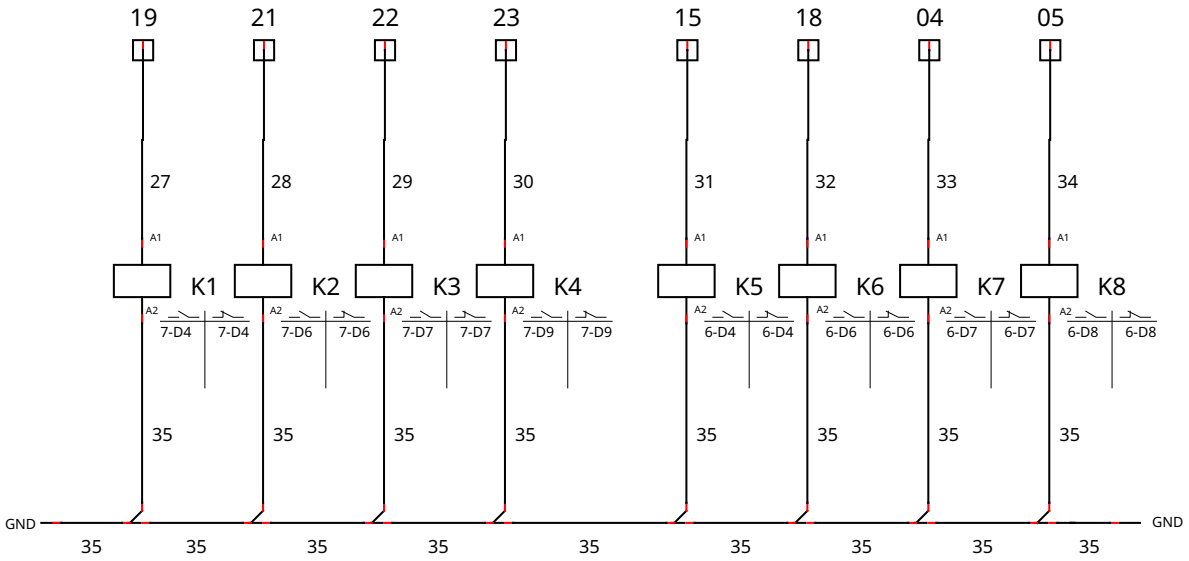
DOCENTE: Sérgio Correia
DISCENTES: Sérgio Carmo
N.º 19749



Author: Sérgio Carmo	Power Supply	File: Power Supply
Date:		Folio: 2/10

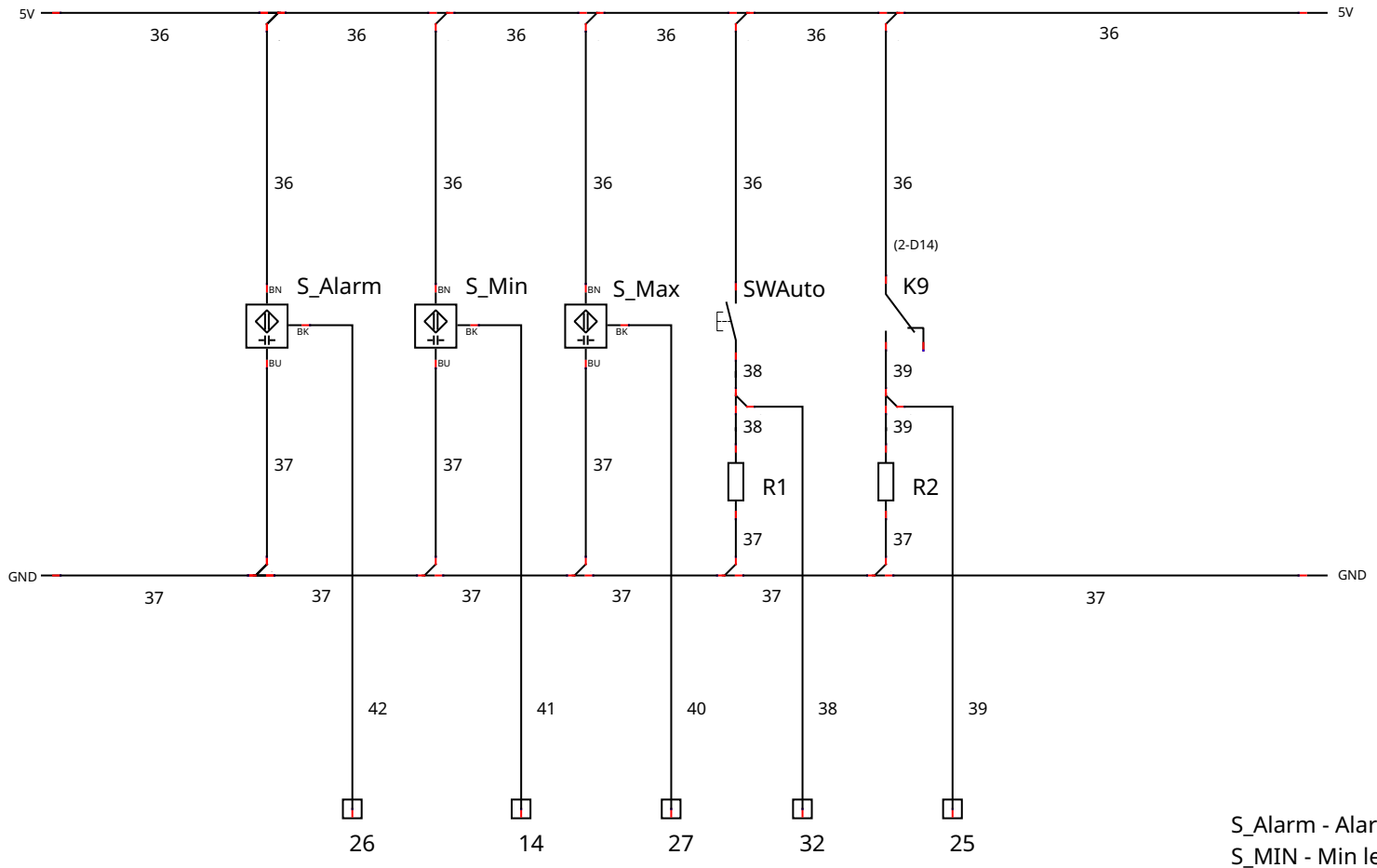


Author: Sérgio Carmo	Inputs / Outputs
Date:	File: Inputs / Outputs
	Folio: 3/10



V1 - Cold Water Electronic Valvule In
V2 - Vapor Electronic Valvule out
BMB - Water Pump
RAQ - Water Heater
LED AUTO - Auto Mode Indicator
LED ALARM - Alarm Indicator
LED MAX - Max Water Level Indicator
LED MIN - Min Water Level Indicator

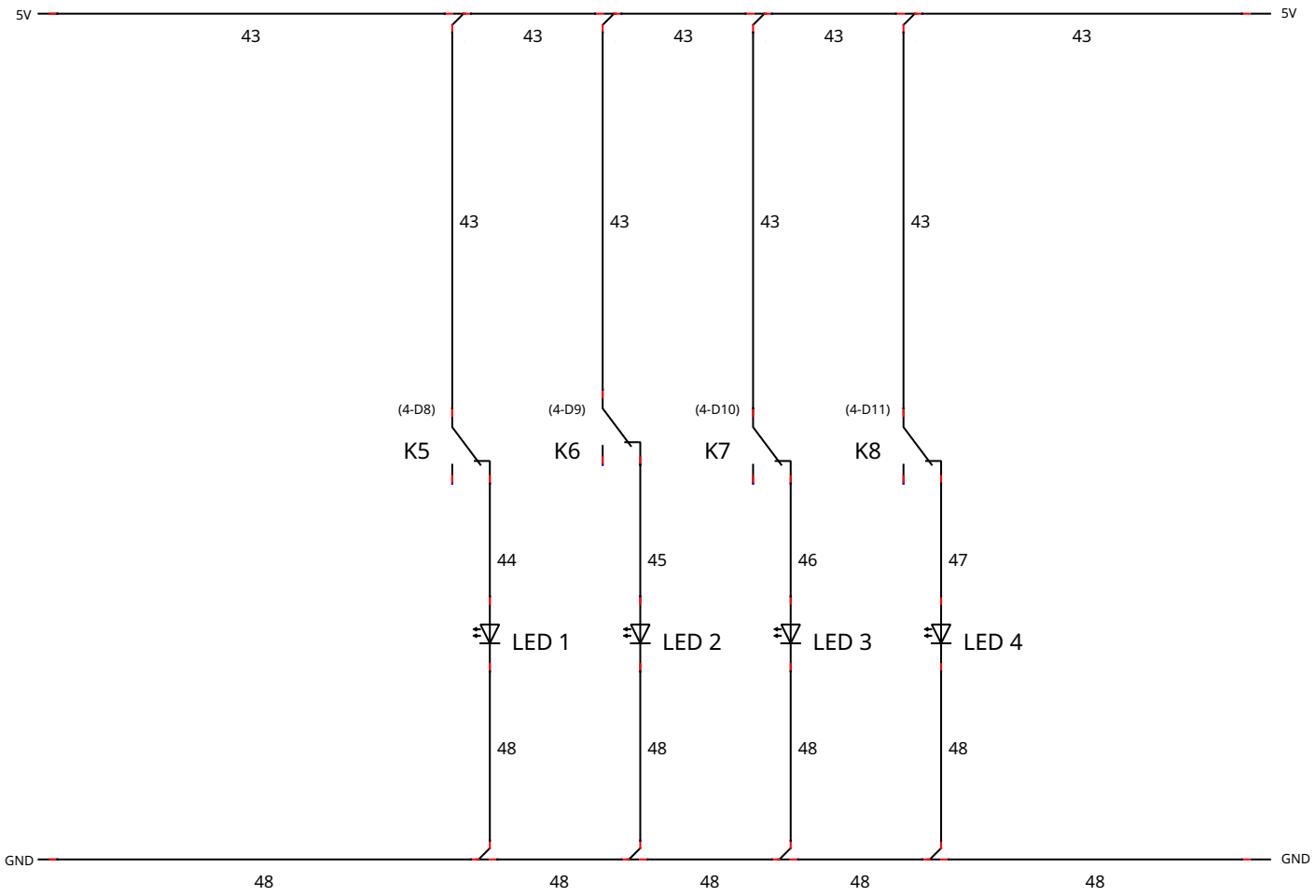
Author: Sérgio Carmo	Digital Outputs	File: Digital Outputs
Date:		Folio: 4/10



S_ALARM	S_MIN	S_MAX	SW_AUTO	SW_MAN

S_Alarm - Alarm level water sensor
S_MIN - Min level water sensor
S_MAX - Max level water sensor
SW_Auto - Push Button Auto Mode
SW_MAN - Switch Manual mode
R1, R2 - 10 k ohm resistor

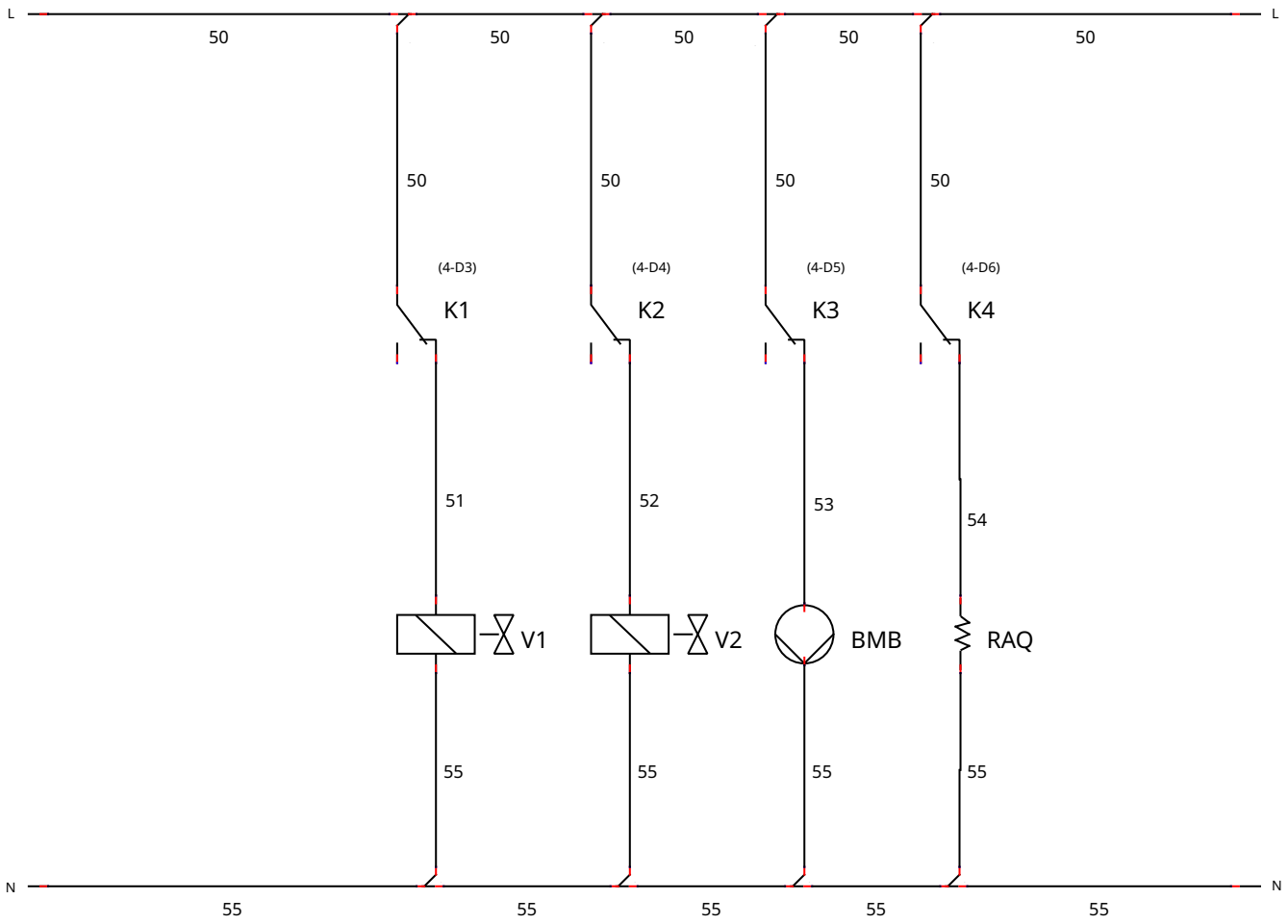
Author: Sérgio Carmo	Digital Inputs	File: Digital Inputs
Date:		Folio: 5/10



LED AUTO	LED ALARM	LED MAX	LED MIN

R5 - Relay Output 5
R6 - Relay Output 6
R7 - Relay Output 7
R8 - Relay Output 8
LED 1 - Auto Mode Indicator
LED 2 - Alarm Indicator
LED 3 - Max Water Level Indicator
LED 4 - Min Water Level Indicator

Author: Sérgio Carmo	Outputs 5v	File: Outputs 5v
Date:		Folio: 6/10

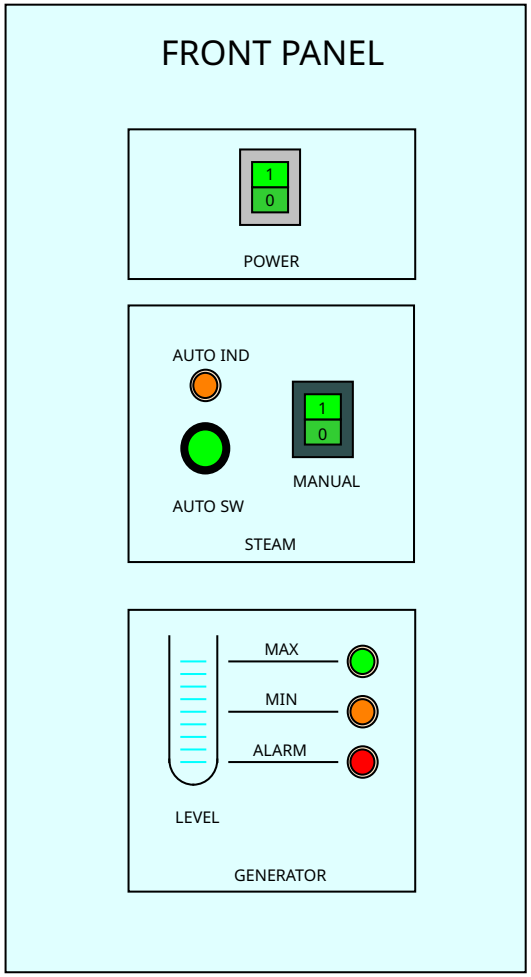


V1	V2	BMB	RAQ

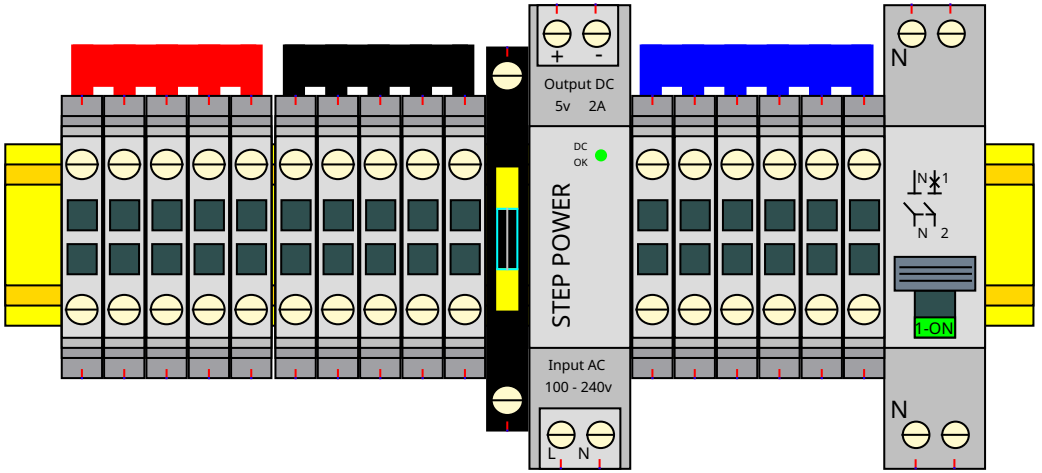
R1 - Relay Output 1
R2 - Relay Output 2
R3 - Relay Output 3
R4 - Relay Output 4
V1 - Cold Water Electronic Valvule In
V2 - Vapor Electronic Valvule out
BMB - Water Pump
RAQ - Water Heater

Author: Sérgio Carmo	Output 230V	File: Output 230V
Date:		Folio: 7/10

FRONT PANEL



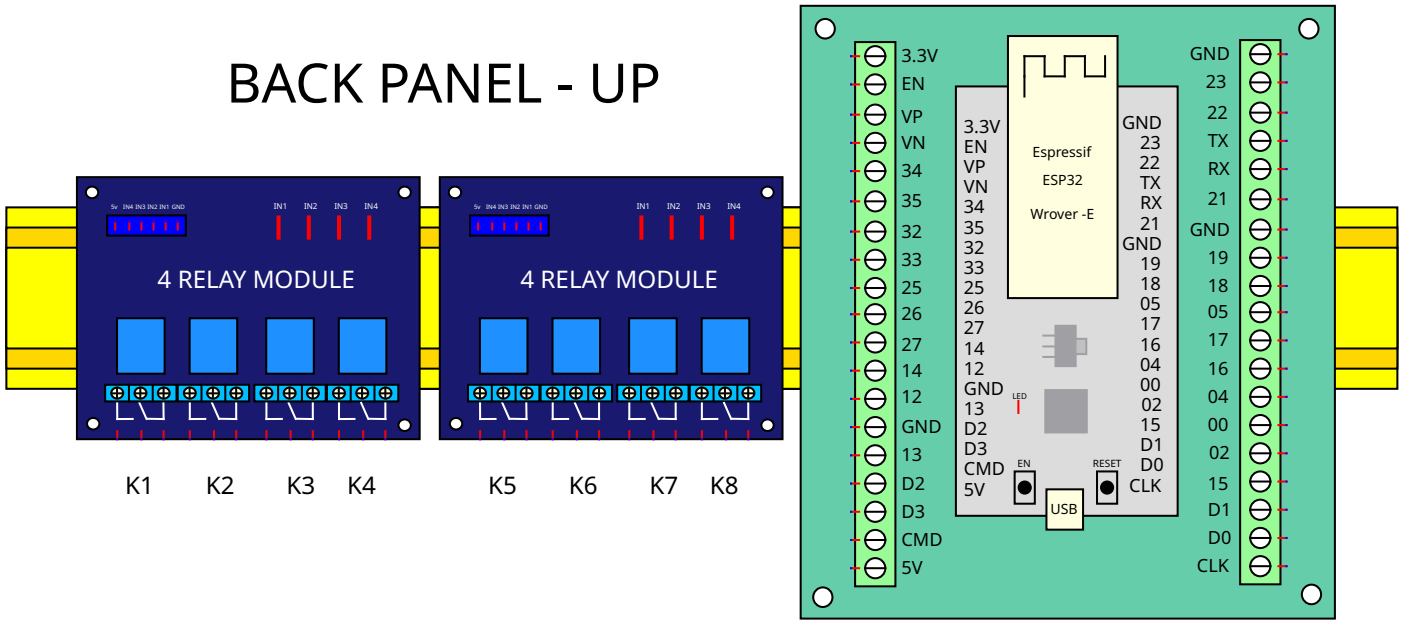
SIDE PANEL



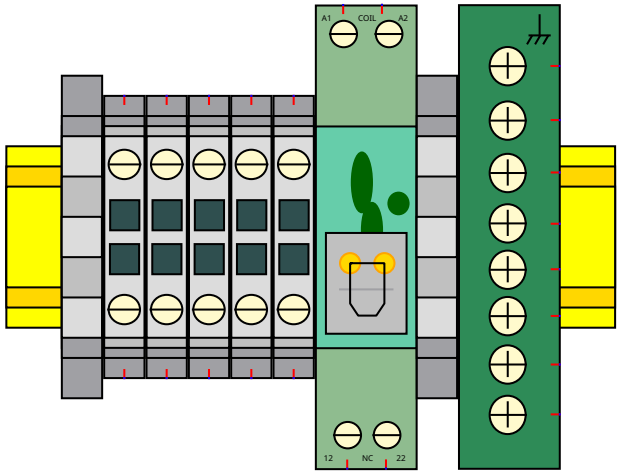
F1 PS1 Q1

Author: Sérgio Carmo	Layout: Front + Side	File: Layout: Front + Side
Date:		Folio: 8/10

BACK PANEL - UP



BACK PANEL - DOWN



Author: Sérgio Carmo	Layout: Back	File: Layout: Back
Date:		Folio: 9/10

Scheme	Symbol	Quantity	Description	Manufacturer	Ref. Manufacturer	Supplier	Ref. Supplier
		1	Circuit Breaker	Schneider	iDPN N C 16A		
		1	Main Switch With Built-in 240V Neon Indicator				
		1	Bus Power Supply 5V	Phoenix Contact			
		1	Fuse				
		1	Esp32 Wrover-E	EspressIf			
		1	Esp32 Expansion Board		616		
		2	4 Relay Module		2PH63083A		
		3	Liquid Proximity Sensor				
		1	Push Button				
		1	240V Relay				
		2	10k ohm Resistor				
		4	5V LED Indicator				
		2	240V Water Valve	M.M	B297DVE		
		1	240V Water Pump	Gorman Rupp Industries			
		1	240V Water Heater				
		1	Push Switch Button With Built-in 240V Neon Indicator				
		29	Bus Connector				
		1	Bus Connector 8 Outputs				
		4	Bus Holder				