230 V AC

Wall_Plug

Line
Earth
Neutral

EMERGENCY Switch
POWER Switch

ON/OFF Switch & Fuse For Whole System

13Amp, 20x5 mm Fuse

Over pressure safety Switch For Compressor Danfoss KP-35

Compressor ON / OFF

Switch

Contactor

Compressor
2 hp
180 LPM at 3 bar
150 LPM at 6 bar

Earth

AC to DC Power Supply 24V DC, >100W

L E N
ACDC_SMPS
+24V
GND

GND

DANGER
HIGH VOLTAGE
230V AC

DC
LOW VOLTAGE
24V DC MAX

DC to DC Converter +5V for Arduino

+24V +5V
DCDC_Buck
GND GND

Any Arduino Baord or Compatible will work here

Arduino_Nano

3V3
D13 D12
3V3 D11   D11
Aref D10   D10
A0 D9   D9
A1 D8
A2 D7
A3 D6
A4 D5
A5 D4   D4
A6 D3   D3
A7 D2   D2
+5V GND
RST RST
GND D0
Vin D1

I2C_SDA
I2C_SCL

5V

GND

4 Relay Board
Relay Coil 5V

GND
+5V
IN4
IN3
IN2
IN1
Relay_Board

NO4
COM4
NO3
COM3
NO2
COM2
NO1
COM1

230V AC here !
Can be avoided if you use a 24V DC coil contactor

Solenoid Sieve A
Solenoid Sieve B
Solenoid Equalise (not used)

Fan Fan Fan Fan

SCK/D13 (16)   (15) D12/MISO
+3V3 (17)   (14) ~D11/MOSI
AREF (18)   (13) ~D10/SS
A0/D14 (19)   (12) ~D9
A1/D15 (20)   (11) D8
A2/D16 (21)   (10) D7
A3/D17 (22)   (9) ~D6
SDA/A4/D18 (23)   (8) ~D5
SCL/A5/D19 (24)   (7) D4
A6/D20 (25)   (6) ~D3
A7/D21 (26)   (5) D2
+5V (27)   (4) GND
RESET (28)   (3) RESET
GND (29)   (2) D0/RX
VIN (30)   (1) D1/TX

DHT22
VCC IO GND

Buzzer

SW_Compressor

LED_RGBA

3V3
5V
D2
D3
D4
D9
D10
D11
GND

10k

TEMP/HUMIDITY SENSOR
BUZZER
PUSH BUTTON
LED RGB

ADS1115IDGS
ALERT/RDY VDD
SCL   AIN0
SDA   AIN1
ADDR   AIN2
GND   AIN3

5V
I2C_SCL
I2C_SDA
GND

Keep connection from OOM102 to ADS1115 as short as possible

OOM102
VCC
SIG
GND

OXYGEN SENSOR
OOM102 WITH
ADS1115 A/D CONVERTER
I2C INTERFACE

RST
DC
CS
CLK
DIN
GND
VCC

I2C_SCL
I2C_SDA
GND
5V

OLED

WAVESHARE 2.23" OLED
128 x 32 pixel
I2C INTERFACE

System Voltage	AC to DC Converter Output Voltage	Relays Coil voltage	Fan & Solenoids Voltage	Compressor Voltage
12V DC System	12V	5V	12V	230V AC Supply
24V DC system	24V	5V	24V	230V AC Supply

Original by: Ashish Pardeshi
Redrawn by: Anool Mahidharia
Sheet: /
File: M1902_wiring.sch
Title: M1902_Wiring
Size: A3   Date: 2021-06-29   Rev: V0.2
KiCad E.D.A. kicad 5.1.9-73d0e3b20d88ubuntu20.04.1   Id: 1/1