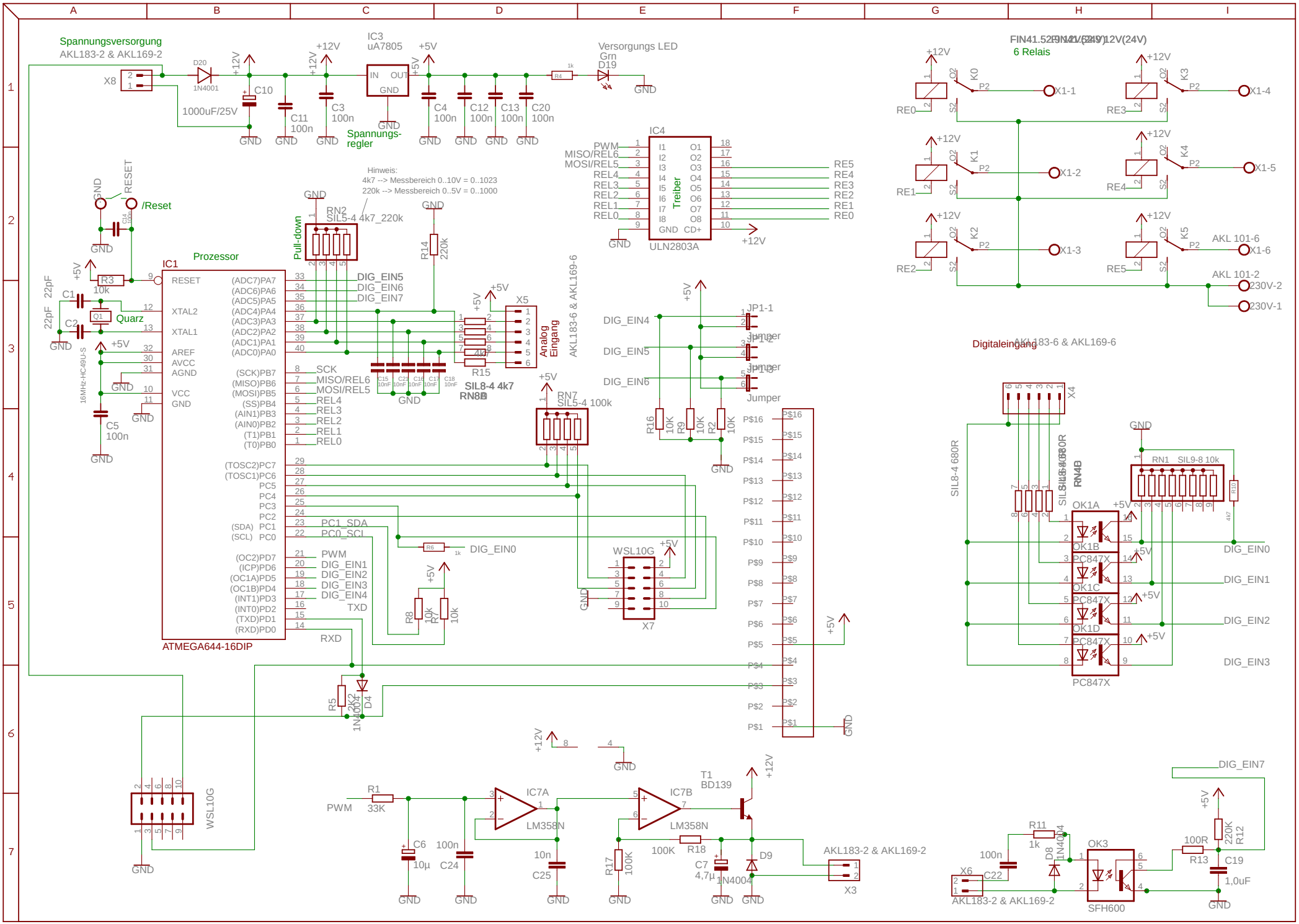

Spannungsversorgung
AKL183-2 & AKL169-2
X8
D20
1N4001
1000uF/25V
C10
C11
100n
C3
100n
IC3
uA7805
IN
OUT
GND
Spannungs-
regler
C4
100n
C12
100n
C13
100n
C20
100n
Versorgungs LED
Grn
D19
R4
1k
+12V
+5V
GND
IC4
Treiber
ULN2803A
PWM
MISO/REL6
MOSI/REL5
REL4
REL3
REL2
REL1
REL0
RE5
RE4
RE3
RE2
RE1
RE0
Hinweis:
4k7 --> Messbereich 0..10V = 0..1023
220k --> Messbereich 0..5V = 0..1000
RN2
SIL5-4 4k7_220k
Pull-down
R14
220k
/Reset
RESET
R3
10k
C1
22pF
C2
22pF
Q1
Quarz
16MHz-HC49U-S
C5
100n
IC1
Prozessor
RESET
XTAL2
XTAL1
AREF
AVCC
AGND
VCC
GND
(ADC7)PA7
(ADC6)PA6
(ADC5)PA5
(ADC4)PA4
(ADC3)PA3
(ADC2)PA2
(ADC1)PA1
(ADC0)PA0
(SCK)PB7
(MISO)PB6
(MOSI)PB5
(SS)PB4
(AIN1)PB3
(AIN0)PB2
(T1)PB1
(T0)PB0
(TOSC2)PC7
(TOSC1)PC6
PC5
PC4
PC3
PC2
(SDA) PC1
(SCL) PC0
(OC2)PD7
(ICP)PD6
(OC1A)PD5
(OC1B)PD4
(INT1)PD3
(INT0)PD2
(TXD)PD1
(RXD)PD0
ATMEGA644-16DIP
DIG_EIN5
DIG_EIN6
DIG_EIN7
SCK
MISO/REL6
MOSI/REL5
REL4
REL3
REL2
REL1
REL0
PC1_SDA
PC0_SCL
PWM
DIG_EIN1
DIG_EIN2
DIG_EIN3
DIG_EIN4
TXD
RXD
X5
Analog
Eingang
AKL183-6 & AKL169-6
R15
4k7
SIL8-4 4k7
RN8B
RN7
SIL5-4 100k
DIG_EIN4
DIG_EIN5
DIG_EIN6
JP1-1
JP1-2
JP1-3
Jumper
R16
10K
R9
10K
R2
10K
R6
1k
DIG_EIN0
R8
10k
R7
10k
WSL10G
X7
R5
2K2
D4
1N4004
WSL10G
R1
33K
PWM
C6
10µ
C24
100n
IC7A
LM358N
10n
C25
IC7B
LM358N
R17
100K
R18
100K
C7
4,7µ
1N4004
D9
T1
BD139
AKL183-2 & AKL169-2
X3
FIN41.52 FIN41.52 12V(24V)
6 Relais
K0
K1
K2
K3
K4
K5
RE0
RE1
RE2
RE3
RE4
RE5
X1-1
X1-2
X1-3
X1-4
X1-5
X1-6
AKL 101-6
AKL 101-2
230V-2
230V-1
Digitaleingang
AKL183-6 & AKL169-6
X4
SIL8-4 680R
RN4B
RN1
SIL9-8 10k
OK1A
OK1B
OK1C
OK1D
PC847X
DIG_EIN0
DIG_EIN1
DIG_EIN2
DIG_EIN3
DIG_EIN7
R11
1k
D8
1N4004
X6
C22
100n
AKL183-2 & AKL169-2
OK3
SFH600
R13
100R
R12
220K
C19
1,0uF