

Aktivbox Steuergerät Version1

Stückliste

Stand: 23.07.2014

| Bauteil | Beschreibung | Lieferant | Best.-Nr. | Einzelpreis | Anzahl | Preis |
|---------------------------------------|---|-----------|-----------------|-------------|--------|-------|
| IC1L/R | 1/8 MULTIPLEXER | Reichelt | 74HC 4051 | 0.37 | 2 | 0.74 |
| IC2, IC4 | Op-Amp, DIP-8 | Reichelt | NE 5532 DIP | 0.34 | 2 | 0.68 |
| IC3 | Digitalpotentiometer, 2-Kanal, variabel, TSSOP-16 | Reichelt | AD 5262 BRU | 3.35 | 1 | 3.35 |
| | Adapter TSSOP16 (für IC3, ca. €1,50) | Ebay | | | 1 | |
| IC5 | 4 Analogschalter | Reichelt | 74HC 4066 | 0.32 | 1 | 0.32 |
| IC7 | Solid-State-Relais, U: 600V, IT: 8,0A, Ift: 8 mA | Reichelt | S202 S02 | 3.30 | 1 | 3.30 |
| IC8 | Spannungsregler 1,5A positiv, TO-220 | Reichelt | µA 7805 | 0.28 | 1 | 0.28 |
| IC9 | Spannungsregler 1,5A negativ, TO-220 | Reichelt | µA 7905 | 0.32 | 1 | 0.32 |
| IC13 | PIC-Controller DIP-40 | Reichelt | PIC 16F877A-I/P | 4.15 | 1 | 4.15 |
| IC14 | IR-Empfänger 36 kHz 950 nm Vishay TSOP4836 | Conrad | 171107 - 62 | 1.60 | 1 | 1.60 |
| IC15 | 8BIT SIPO SHIFT REGI | Reichelt | 74HC 164 | 0.28 | 1 | 0.28 |
| T1,T2,T8 | Transistor PNP TO-92 45V 0,8A 0,625W | Reichelt | BC 327-40 | 0.04 | 3 | 0.12 |
| T7,T9,T10 | Transistor NPN TO-92 45V 0,5A 0,625W | Reichelt | BC 337-40 | 0.04 | 3 | 0.12 |
| | IC-Sockel, 8-polig, doppelter Federkontakt | Reichelt | GS 8 | 0.04 | 2 | 0.08 |
| | IC-Sockel, 14-polig, doppelter Federkontakt | Reichelt | GS 14 | 0.04 | 2 | 0.08 |
| | IC-Sockel, 16-polig, doppelter Federkontakt | Reichelt | GS 16 | 0.05 | 2 | 0.10 |
| | IC-Sockel, 40-polig, doppelter Federkontakt | Reichelt | GS 40 | 0.11 | 1 | 0.11 |
| für Adapter TSSOP16 (IC3) | 36pol. Stiftheiste, gerade, RM 2,54 | Reichelt | SL 1X36G 2,54 | 0.15 | 1 | 0.15 |
| für Adapter TSSOP16 (IC3) | 20pol. Buchsenleiste, gerade, RM 2,54 | Reichelt | BL 1X20G 2,54 | 0.72 | 1 | 0.72 |
| D1-D4 | Gleichrichterdioden, DO41, 1000V, 1A | Reichelt | 1N 4007 | 0.02 | 4 | 0.08 |
| LED1 | LED, 3mm, Low Cost, rot | Reichelt | LED 3MM RT | 0.06 | 1 | 0.06 |
| Q1 | Standardquarz, Grundton, 4,0 MHz | Reichelt | 4.0000-HC49U-S | 0.13 | 1 | 0.13 |
| C1L/R-C6L/R | Wima Folienkondensator, Rm 5mm, 1,0µF | Reichelt | MKS-2 1,0µ | 0.20 | 12 | 2.34 |
| C7L/R | WIMA Folienkondensator, Rm 5mm, 470nF | Reichelt | MKS-2-5 470N | 0.16 | 2 | 0.31 |
| C8L/R,C23 | Elektrolytkondensator, 105°C, RM 2,0mm | Reichelt | RAD 105 10/63 | 0.04 | 3 | 0.12 |
| C9,C10,C20,C24 | Vielschicht-Keramikkondensator 100N, 10% | Reichelt | X7R-5 100N | 0.05 | 4 | 0.20 |
| C11,C12 | Elektrolytkondensator, 10x12,5mm, RM 5,0mm | Reichelt | RAD 470/16 | 0.04 | 2 | 0.08 |
| C13 | Entstörkondensator, X2, 275VAC / 10%, 0,22µF | Reichelt | PAN-X2-220N | 0.32 | 1 | 0.32 |
| C14,C15 | Elko radial, 105°C, low ESR, RM 5,0mm | Reichelt | RAD FC 2.200/25 | 1.00 | 2 | 2.00 |
| C16,C17,C19 | Elektrolytkondensator, 105°C, RM 2,0mm | Reichelt | RAD 105 47/35 | 0.04 | 3 | 0.12 |
| C21,C22 | Keramik-Kondensator 22P | Reichelt | KERKO 22P | 0.05 | 2 | 0.10 |
| R1L/R-R12L/R, R19R/L, R22R/L, R26R/L, | Metallschichtwiderstand 100 K-Ohm | Reichelt | METALL 100K | 0.05 | 30 | 1.47 |
| R13R/L-R18R/L, R21R/L, R24R/L, R47* | Metallschichtwiderstand 1,00 K-Ohm | Reichelt | METALL 1,00K | 0.05 | 17 | 0.83 |
| R20R/L, R23R/L, R28-R34, R65 | Metallschichtwiderstand 2,70 K-Ohm | Reichelt | METALL 2,70K | 0.05 | 12 | 0.59 |
| R25R/L | Metallschichtwiderstand 4,70 K-Ohm | Reichelt | METALL 4,70K | 0.08 | 2 | 0.16 |
| R27R/L | Metallschichtwiderstand 20,0 Ohm | Reichelt | METALL 20,0 | 0.08 | 2 | 0.16 |
| R35-R38 | Metallschichtwiderstand 22,0 K-Ohm | Reichelt | METALL 22,0K | 0.08 | 4 | 0.33 |
| R46, R60,R61, R63, R64, R69-R71 | Metallschichtwiderstand 10,0 K-Ohm | Reichelt | METALL 10,0K | 0.05 | 10 | 0.49 |
| R62 | Metallschichtwiderstand 100 Ohm | Reichelt | METALL 100 | 0.08 | 1 | 0.08 |
| R66 | Metallschichtwiderstand 560 Ohm | Reichelt | METALL 560 | 0.08 | 1 | 0.08 |
| R67 | Spindeltrimmer, waschbar, 19mm, 10 K-Ohm | Reichelt | 962-20 10K | 0.23 | 1 | 0.23 |
| VDR1 | Varistor,RM 7,5mm, 0,6W, 250VAC =JVR14N391K | Reichelt | VDR-0,6 250 | 0.14 | 1 | 0.14 |
| KL1-KL3 | Anreihklemme 3-polig, RM5,08 | Reichelt | AKL 057-03 | 0.31 | 2 | 0.62 |
| SV1R/L-SV5R/L, SV7R/L | Cinchkupse, Einbauprint, 2-fach | Reichelt | CBP 2 | 0.53 | 6 | 3.18 |
| SV6, SV8 | Klinken-Steckverb. 3.5 mm Buchse, Cliff FC68129 | Conrad | 736730 - 62 | 1.00 | 2 | 2.00 |
| SV14a/b | Platinensteckverbinder gerade, braun, 2-polig | Reichelt | PS 25/2G BR | 0.31 | 1 | 0.31 |
| SV10a/b-SV12a/b | Platinensteckverbinder gerade, braun, 5-polig | Reichelt | PS 25/5G BR | 0.57 | 3 | 1.71 |
| SV13, SV15a, (JP1) | 36pol. Stiftheiste, gerade, RM 2,54 | Reichelt | SL 1X36G 2,54 | 0.15 | 1 | 0.15 |
| SV15b | 20pol. Buchsenleiste, gerade, RM 2,54 | Reichelt | BL 1X20G 2,54 | 0.72 | 1 | 0.72 |
| JP1 | Kurzschlussbrücke, schwarz, RM 2,54 | Reichelt | JUMPER 2,54 SW | 0.05 | 1 | 0.05 |
| Ta1-Ta6 | Kurzhubtaster 6,6x7,4mm,Höhe:3,15mm,12V,horiz | Reichelt | TASTER 3305 | 0.13 | 6 | 0.78 |
| Ta7 | Kurzhubtaster 6x6mm, Höhe: 4,3mm, 12V, vertikal | Reichelt | TASTER 3301 | 0.11 | 1 | 0.11 |
| SW1 | Wippschalter, 1-polig AUS, 10(4)A/250V~ | Reichelt | WIPPE 1801.1146 | 1.15 | 1 | 1.15 |
| TR1 | Trafo 1,5VA, 2x 6V, 2x 125mA | Reichelt | EI 30/12,5 206 | 2.50 | 1 | 2.50 |
| F1 | Feinsicherung 5x20mm, träge 2,0A | Reichelt | TRÄGE 2,0A | 0.32 | 1 | 0.32 |
| | Sicherungshalter für Feinsicherung 5 x 20 mm | Conrad | 532908 - 62 | 0.25 | 1 | 0.25 |
| | LCD Dot-Matrix-Modul, 2x16 Zeichen, blau | Reichelt | LCD 162C BL | 9.75 | 1 | 9.75 |
| | Streifenrasterplatine, Hartpapier, 200x100mm | Reichelt | H25SR200 | 1.80 | 2 | 3.60 |
| | Gerätebuchse, Schraubmontage | Reichelt | S KEB1 | 0.95 | 2 | 1.90 |

56.04

Aktivbox Steuergerät Version2

Stückliste

Stand: 23.07.2014

| Bauteil | Beschreibung | Lieferant | Best.-Nr. | Einzelpreis | Anzahl | Preis |
|---|---|-----------|-----------------|-------------|--------|-------|
| IC1L/R | 1/8 MULTIPLEXER | Reichelt | 74HC 4051 | 0.37 | 2 | 0.74 |
| IC2, IC4 | Op-Amp, DIP-8 | Reichelt | NE 5532 DIP | 0.34 | 2 | 0.68 |
| IC3 | Digitalpotentiometer, 2-Kanal, variabel, TSSOP-16 | Reichelt | AD 5262 BRU | 3.35 | 1 | 3.35 |
| | Adapter TSSOP16 (für IC3, ca. €1,50) | Ebay | | | 1 | |
| IC5 | 4 Analogschalter | Reichelt | 74HC 4066 | 0.32 | 1 | 0.32 |
| IC6 | Solid-State-Relais, U: 600V, Ir: 0,6A, Ift: 10mA | Reichelt | S26M D02 | 0.89 | 1 | 0.89 |
| IC7 | Solid-State-Relais, U: 600V, IT: 8,0A, Ift: 8 mA | Reichelt | S202 S02 | 3.30 | 1 | 3.30 |
| IC8,IC10 | Spannungsregler 1,5A positiv, TO-220 | Reichelt | µA 7805 | 0.28 | 2 | 0.56 |
| IC9 | Spannungsregler 1,5A negativ, TO-220 | Reichelt | µA 7905 | 0.32 | 1 | 0.32 |
| IC11 | OPTOKOPPLER | Reichelt | LTV 815 | 0.36 | 1 | 0.36 |
| IC12 | OPTOKOPPLER = (4x) KB 815 | Reichelt | LTV 845 | 1.15 | 1 | 1.15 |
| IC13 | PIC-Controller DIP-40 | Reichelt | PIC 16F877A-I/P | 4.15 | 1 | 4.15 |
| IC14 | IR-Empfänger 36 kHz 950 nm Vishay TSOP4836 | Conrad | 171107 - 62 | 1.60 | 1 | 1.60 |
| IC15 | 8BIT SIPO SHIFT REGI | Reichelt | 74HC 164 | 0.28 | 1 | 0.28 |
| T1-T3,T8 | Transistor PNP TO-92 45V 0,8A 0,625W | Reichelt | BC 327-40 | 0.04 | 4 | 0.16 |
| T4 | Transistor PNP TO-126 80V 1,5A 12,5W | Reichelt | BD 140 CDIL | 0.16 | 1 | 0.16 |
| T5 | Transistor NPN TO-126 80V 1,5A 8W | Reichelt | BD 139 CDIL | 0.16 | 1 | 0.16 |
| T6,T7,T9,T10 | Transistor NPN TO-92 45V 0,5A 0,625W | Reichelt | BC 337-40 | 0.04 | 4 | 0.16 |
| | IC-Sockel, 8-polig, doppelter Federkontakt | Reichelt | GS 8 | 0.04 | 2 | 0.08 |
| | IC-Sockel, 14-polig, doppelter Federkontakt | Reichelt | GS 14 | 0.04 | 2 | 0.08 |
| | IC-Sockel, 16-polig, doppelter Federkontakt | Reichelt | GS 16 | 0.05 | 2 | 0.10 |
| | IC-Sockel, 40-polig, doppelter Federkontakt | Reichelt | GS 40 | 0.11 | 1 | 0.11 |
| für Adapter TSSOP16 (IC3) | 36pol. Stiftheiste, gerade, RM 2,54 | Reichelt | SL 1X36G 2,54 | 0.15 | 1 | 0.15 |
| für Adapter TSSOP16 (IC3) | 20pol. Buchsenleiste, gerade, RM 2,54 | Reichelt | BL 1X20G 2,54 | 0.72 | 1 | 0.72 |
| D1-D4 | Gleichrichterdiode, DO41, 1000V, 1A | Reichelt | 1N 4007 | 0.02 | 4 | 0.08 |
| D5, D6 | Planar Epitaxial Schottkdiode, DO35, 100V, 0,15A | Reichelt | 1N 4148 | 0.02 | 2 | 0.04 |
| LED1 | LED, 3mm, Low Cost, rot | Reichelt | LED 3MM RT | 0.06 | 1 | 0.06 |
| Q1 | Standardquarz, Grundton, 4,0 MHz | Reichelt | 4.0000-HC49U-S | 0.13 | 1 | 0.13 |
| C1L/R-C6L/R | Wima Folienkondensator, Rm 5mm, 1,0µF | Reichelt | MKS-2 1,0µ | 0.20 | 12 | 2.34 |
| C7L/R | WIMA Folienkondensator, Rm 5mm, 470nF | Reichelt | MKS-2-5 470N | 0.16 | 2 | 0.31 |
| C8L/R,C23 | Elektrolytkondensator, 105°C, RM 2,0mm | Reichelt | RAD 105 10/63 | 0.04 | 3 | 0.12 |
| C9,C10,C20,C24 | Vielschicht-Keramikkondensator 100N, 10% | Reichelt | X7R-5 100N | 0.05 | 4 | 0.20 |
| C11,C12 | Elektrolytkondensator, 10x12,5mm, RM 5,0mm | Reichelt | RAD 470/16 | 0.04 | 2 | 0.08 |
| C13 | Entstörkondensator, X2, 275VAC / 10%, 0,22µF | Reichelt | PAN-X2-220N | 0.32 | 1 | 0.32 |
| C14,C15 | Elko radial, 105°C, low ESR, RM 5,0mm | Reichelt | RAD FC 2.200/25 | 1.00 | 2 | 2.00 |
| C16-C19 | Elektrolytkondensator, 105°C, RM 2,0mm | Reichelt | RAD 105 47/35 | 0.04 | 4 | 0.16 |
| C21,C22 | Keramik-Kondensator 22P | Reichelt | KERKO 22P | 0.05 | 2 | 0.10 |
| R1L/R-R12L/R, R19R/L, R22R/L, R26R/L, R13R/L-R18R/L, R21R/L, R24R/L, R47* | Metallschichtwiderstand 100 K-Ohm | Reichelt | METALL 100K | 0.05 | 30 | 1.47 |
| R20R/L, R23R/L, R28-R34, R65 | Metallschichtwiderstand 1,00 K-Ohm | Reichelt | METALL 1,00K | 0.05 | 17 | 0.83 |
| R25R/L, R43, R27R/L | Metallschichtwiderstand 2,70 K-Ohm | Reichelt | METALL 2,70K | 0.05 | 12 | 0.59 |
| R35-R38 | Metallschichtwiderstand 4,70 K-Ohm | Reichelt | METALL 4,70K | 0.08 | 3 | 0.25 |
| R39-R42, R44-R46, R50-R61, R63, R64, R68-R71 | Metallschichtwiderstand 20,0 Ohm | Reichelt | METALL 20,0 | 0.08 | 2 | 0.16 |
| R48* | Metallschichtwiderstand 22,0 K-Ohm | Reichelt | METALL 22,0K | 0.08 | 4 | 0.33 |
| R49* | Metallschichtwiderstand 10,0 K-Ohm | Reichelt | METALL 10,0K | 0.05 | 25 | 1.23 |
| R62 | Metallschichtwiderstand 1,50 K-Ohm | Reichelt | METALL 1,50K | 0.08 | 1 | 0.08 |
| R66 | Metallschichtwiderstand 330 Ohm | Reichelt | METALL 330 | 0.08 | 1 | 0.08 |
| R67 | Metallschichtwiderstand 100 Ohm | Reichelt | METALL 100 | 0.08 | 1 | 0.08 |
| R67 | Metallschichtwiderstand 560 Ohm | Reichelt | METALL 560 | 0.08 | 1 | 0.08 |
| VDR1 | Spindeltrimmer, waschbar, 19mm, 10 K-Ohm | Reichelt | 962-20 10K | 0.23 | 1 | 0.23 |
| KL1-KL3 | Varistor,RM 7,5mm, 0,6W, 250VAC =JVR14N391K | Reichelt | VDR-0,6 250 | 0.14 | 1 | 0.14 |
| SV1R/L-SV5R/L, SV7R/L | Anreihklemme 3-polig, RM5,08 | Reichelt | AKL 057-03 | 0.31 | 3 | 0.93 |
| SV6, SV8 | Cinchbuchse, Einbauprint, 2-fach | Reichelt | CBP 2 | 0.53 | 6 | 3.18 |
| SV9a/b, SV14a/b | Klinken-Steckverb. 3.5 mm Buchse, Cliff FC68129 | Conrad | 736730 - 62 | 1.00 | 2 | 2.00 |
| SV10a/b-SV12a/b | Platinensteckverbinder gerade, braun, 2-polig | Reichelt | PS 25/2G BR | 0.31 | 2 | 0.62 |
| SV13, SV15a, (JP1) | Platinensteckverbinder gerade, braun, 5-polig | Reichelt | PS 25/5G BR | 0.57 | 3 | 1.71 |
| SV15b | 36pol. Stiftheiste, gerade, RM 2,54 | Reichelt | SL 1X36G 2,54 | 0.15 | 1 | 0.15 |
| SV16-SV20 | 20pol. Buchsenleiste, gerade, RM 2,54 | Reichelt | BL 1X20G 2,54 | 0.72 | 1 | 0.72 |
| SV21, SV22 | Einbaukupplung,gewinkelt,PCB,Öfn.Stift Ø1,3mm | Reichelt | LUM 1613-20 | 0.94 | 5 | 4.70 |
| JP1 | Klinkeneinbaubuchse, 3,5mm Stereo, gew., PCB | Reichelt | LUM 1503-07 | 0.59 | 2 | 1.18 |
| Ta1-Ta6 | Kurzschlussbrücke, schwarz, RM 2,54 | Reichelt | JUMPER 2,54 SW | 0.05 | 1 | 0.05 |
| Ta7 | Kurzhubtaster 6,6x7,4mm,Höhe:3,15mm,12V,horiz | Reichelt | TAISTER 3305 | 0.13 | 6 | 0.78 |
| SW1 | Kurzhubtaster 6x6mm, Höhe: 4,3mm, 12V, vertikal | Reichelt | TAISTER 3301 | 0.11 | 1 | 0.11 |
| SW2 | Wippschalter, 1-polig AUS, 10(4)A/250V~ | Reichelt | WIPPE 1801.1146 | 1.15 | 1 | 1.15 |
| TR1 | Kippschalter, print, 1-polig, 2A-250VAC, Ein-Ein | Reichelt | AS 500APC | 2.20 | 1 | 2.20 |
| F1 | Trafo 1,5VA, 2x 6V, 2x 125mA | Reichelt | EI 30/12,5 206 | 2.50 | 1 | 2.50 |
| | Feinsicherung 5x20mm, träge 2,0A | Reichelt | TRAGE 2,0A | 0.32 | 1 | 0.32 |
| | Sicherungshalter für Feinsicherung 5 x 20 mm | Conrad | 532908 - 62 | 0.25 | 1 | 0.25 |
| | LCD Dot-Matrix-Modul, 2x16 Zeichen, blau | Reichelt | LCD 162C BL | 9.75 | 1 | 9.75 |
| | Streifenrasterplatine, Hartpapier, 200x100mm | Reichelt | H25SR200 | 1.80 | 3 | 5.40 |
| | Gerätebuchse, Schraubmontage | Reichelt | S KEB1 | 0.95 | 2 | 1.90 |