# SKiiP3 Parallel Board 4-fold

## Parallel Board for SKiiP3

**SKiiP3 Parallel Board 4-fold**

### Features

- Driving 4 SKiiP in parallel for higher load current
- The controller drives 4 SKiiP3 subsystems through one interface
- Short pulse suppression and extension
- Generation of dominant dead time for all paralleled SKiiP3
- F-Option board can be easily mounted
- Detection and handling of error signals from paralleled SKiiP3
- Handling of analogue signals from paralleled SKiiP3
- Monitoring of internal generated supply voltages
- Can be mounted using M4 metal screws
- Coated with varnish
- Climate class acc. to IEC60721-3-3: 3K3
- Protection level acc. to IEC 60529: IP00

### Typical Applications*

- Paralleling of 4 GB type SKiiP3
- Using one controller for driving all paralleled SKiiP3

### Footnotes

[1] Supply voltage for connected SKiiP subsystems
[2] Operation temperature is real ambient temperature around the board. Please note: by longterm operation near upper limit of temperature the life time decreases.
[3] Current consumption of parallel board without SKiiP subsystems

**Absolute Maximum Ratings**

| Symbol | Conditions | Values | Unit |
|---|---|---|---|
| $V_s$ | Power Supply [1] | 19.2 ... 28.8 | V |
| $V_{iH}$ | Input signal voltage | 15 + 0.3 | V |
| $T_{op}$ | Operating temperature [2] | -40 ... 85 | °C |
| $T_{stg}$ | Storage temperature | -40 ... 85 | °C |

**Characteristics**

| Symbol | Conditions | min. | typ. | max. | Unit |
|---|---|---|---|---|---|
| $V_s$ | supply voltage non stabilized | 19.2 | 24 | 28.8 | V |
| $I_{S0}$ | Supply current (no load) [3] | | 75 | | mA |
| $I_s$ | Supply current primary side | | = 75 + 4 * $I_s$(SKiiP) | | mA |
| $V_{IT+}$ | Input treshold voltage (HIGH) | 12.3 | | | V |
| $V_{IT-}$ | Input threshold voltage (LOW) | | | 4.6 | V |
| $R_{IN}$ | Input resistance | | 10 | | kΩ |
| $C_{IN}$ | Input capacitance | | 1 | | nF |
| $t_{d(on)IO}$ | Input-output turn-on signal propagation time | | 1 | | µs |
| $t_{d(off)IO}$ | Input-output turn-off signal propagation time | | 1 | | µs |
| $t_{SIS}$ | short pulse suppression time | | 0.625 | | µs |
| $t_{d(err)}$ | Error input-output propagation time | | 9 | | µs |
| $t_{pRESET}$ | Error memory reset time | | 0.009 | | ms |
| $t_{TD}$ | Top-Bot interlock dead time | | 4 | | µs |
| w | Weight | | 110 | | g |
| MTBF | Mean Time Between Failure @ Ta = 40°C, max. load | | 0.83 | | $10^6$h |
| HxWxD | Dimensions | | 180x93 x27 | | mm |

This is an electrostatic discharge sensitive device (ESDS), international standard IEC 60747-1, Chapter IX

* The specifications of our components may not be considered as an assurance of component characteristics. Components have to be tested for the respective application. Adjustments may be necessary. The use of SEMIKRON products in life support appliances and systems is subject to prior specification and written approval by SEMIKRON. We therefore strongly recommend prior consultation of our staff.