

SA15 – Binary I/O SA-Adapter™

- **8 binary I/O channels**
- **15-pin HD-Sub connector**
- **Optically isolated**

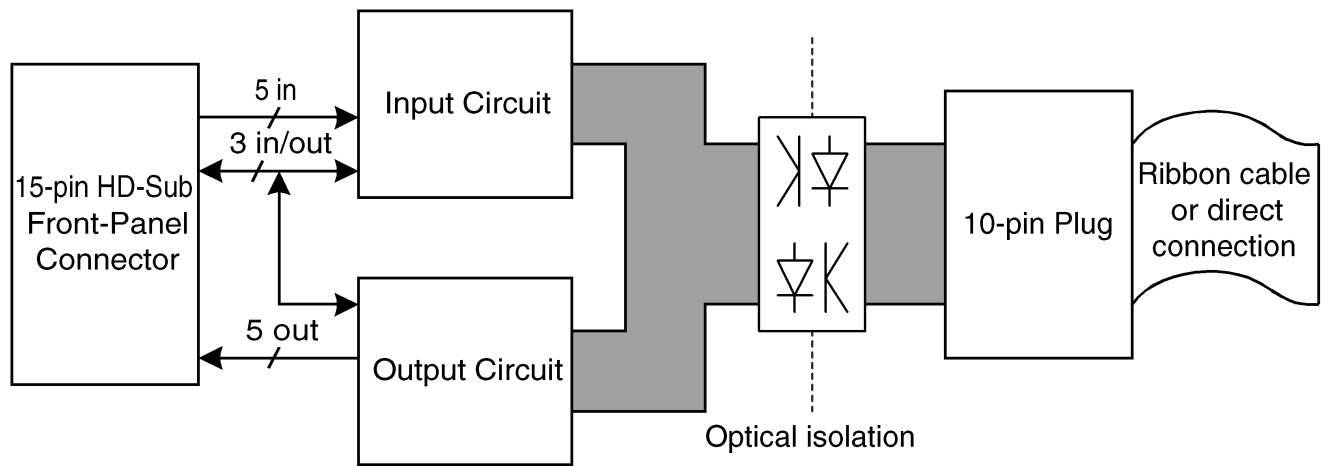


The SA15 provides five binary inputs, five binary outputs and three binary bidirectional inputs/outputs. The supported logic level is 3.3V up to 24V. The output current for each channel is 500mA (sinking), but the maximum overall current is 2.5A.

SA-Adapters™ are small universal boards providing the physics for legacy serial I/O, fieldbus interfaces and other small I/O functions. One serial line is provided per adapter, which can be plugged directly to the CPU

board as a mezzanine. Alternatively, the adapter can be connected to the front panel via ribbon cable. The SA concept allows to add additional I/O interfaces to many of MEN's CPU boards, enhancing flexibility with regard to the line transceivers and isolation requirements. SA-Adapters™ can be used on the majority of MEN's SBCs. Whether a specific SA-Adapter™ (or a mix of different SA-Adapters™) fits on a specific CPU board is determined by a combination of mechanical, performance, FPGA and operating system criteria and needs to be verified for every board configuration requested.

Diagram



Technical Data

Interface Type	■ Binary I/O □ 5 outputs □ 5 inputs □ 3 bidirectional inputs/outputs
Peripheral Connections	■ Via front panel on a shielded 15-pin HD-Sub receptacle connector
Installation	■ As a piggy-back board directly on a CPU board ■ Via ribbon cable
Electrical Specifications	■ Isolation voltage: 500V AC ■ Supply voltage/power consumption: +5 V (4.85 V..5.25 V), tbd. ■ MTBF: 733 000 h @ 50°C (derived from MIL-HDBK-217F)
Mechanical Specifications	■ Dimensions: 32 mm x 42 mm ■ Weight: tbd.
Environmental Specifications	■ Temperature range (operation): □ 0..+60°C □ Industrial temperature range on request □ Airflow: min. 10 m³/h ■ Temperature range (storage): -40..+85°C ■ Relative humidity (operation): max. 95% non-condensing ■ Relative humidity (storage): max. 95% non-condensing ■ Altitude: -300 m to + 3 000 m ■ Shock: 15 g/11 ms ■ Bump: 10 g/16 ms ■ Vibration (sinusoidal): 2 g/10..150 Hz ■ Conformal coating on request
Safety	■ PCB manufactured with a flammability rating of 94V-0 by UL recognized manufacturers
EMC	■ Tested according to EN 55022 (radio disturbance), IEC1000-4-2 (ESD) and IEC1000-4-4 (burst)

Ordering Information

Standard SA15 Models	You can find a more detailed overview of possible carrier board/SA-Adapter™ combinations along with software support in our option matrix (PDF).	
	08SA15-00	8 binary I/O channels, -40..+85°C with qualified components, no RoHS
Documentation	20SA15-00	SA15 User Manual

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