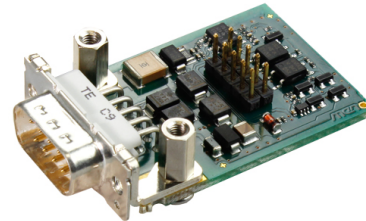


SA24M – IBIS Master SA-Adapter

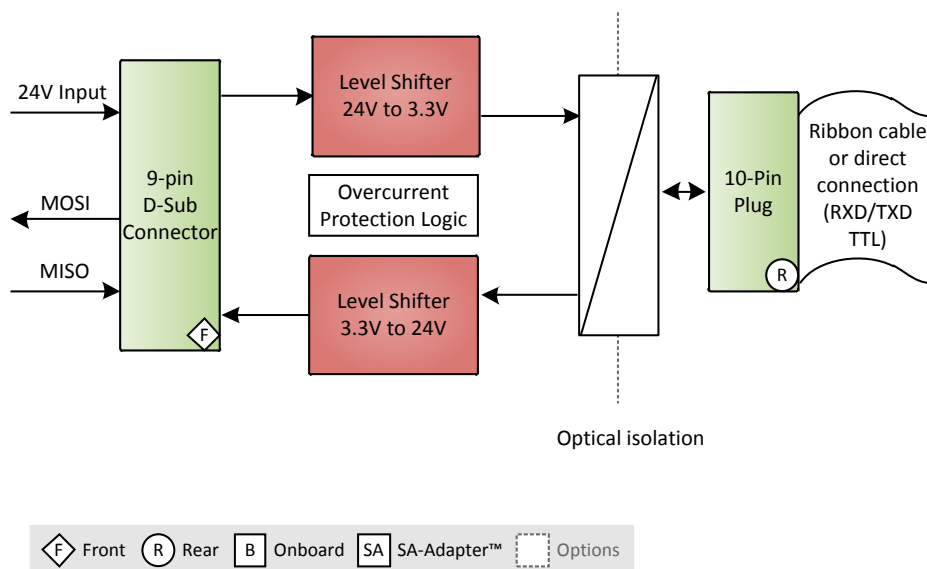
- **1 channel master**
- **Over-current and short-cut protection**
- **Optical isolation**
- **-40 to +85°C screened**



The SA24M provides one IBIS master interface with an external 24V supply. While a fieldbus master controls the data traffic, the data transfer between master and slave participants is initiated only by the master. IBIS is a fieldbus used in public transport vehicles. It is based on a UART structure and can therefore be combined with MEN boards that support any kind of UART interfaces together with SA-Adapter slots. 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 and box PCs, enhancing flexibility with regard to the line transceivers and isolation requirements. 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

Interfaces	■ IBIS master on front connector □ External 24V power supply on front connector for IBIS signal level □ Standard IBIS data rate (1200 bit/s) up to standard UART data rate (up to 9600 bit/s) ■ Serial TTL Interface on 10-pin SA-Adapter connector
Installation	■ As a piggy-back board directly on a carrier board ■ Via ribbon cable
Peripheral Connections	■ Via front panel on a shielded 9-pin D-Sub receptacle connector
Electrical Specifications	■ Isolation voltage: □ 750V DC or 500V AC between isolated side and digital side ■ Supply voltage/power consumption: □ Digital side +5V (-3%/+5%), 10 mA typ. (25 mA max.) □ Isolated side +24V (-30%/+25%), 10mA typ. (110 mA max., when loopback on pin 1/2) ■ MTBF: tbd @ 40°C according to IEC/TR 62380 (RDF 2000)
Mechanical Specifications	■ Dimensions: 32mm x 42mm ■ Weight: □ 18g (Master)
Environmental Specifications	■ Temperature range (operation): □ -40..+85°C (qualified) ■ Temperature range (storage): -40..+85°C ■ Relative humidity (operation): max. 95% non-condensing ■ Relative humidity (storage): max. 95% non-condensing ■ Altitude: -300m to + 3,000m ■ Shock: □ 50 m/s², 30 ms (EN 61373) □ 15 g, 11 ms (EN 60068-2-27) ■ Vibration (function): 2.02 m/s², 5 Hz to 150 Hz (EN 61373) ■ Vibration (lifetime): 11.44 m/s², 5 Hz to 150 Hz (EN 61373) ■ Conformal coating
Safety	■ Flammability □ UL 94V-0
EMC	■ EN 50121-3-2 (conducted disturbance) ■ IEC 61000-4-4 (burst) ■ IEC 61000-4-6 (conducted disturbances)

**Up-to-date information,
documentation and
ordering information:**
www.men.de/products/sa24m/

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