

DGPS

Serial interface converter



The DGPS interface converter provides 4 isolated RS-232 interfaces. Each interfaces is electrically isolated from the others. The DGPS can be used to connect systems working on different electric potentials, minimising the susceptibility for electromagnetic interferences.

- 3 interfaces RS-232 5-wire, individually galvanically isolated
- 1 interface RS-232 3-wire
- 4 digital inputs, individually galvanically isolated, capable to generate interrupts
- Power supply of 24 V
- Housing mountable on DIN rail or mounting plate

DGPS

Features



Serial Interfaces

The RS-232 3-wire interface is designed as service or programming interface. It is galvanically connected to the computer core, but isolated from the supply voltage. Baudrates upto 57600 Baud are supported.

Three additional RS-232 5-wire interfaces are implemented. RTS/CTS are supported as bidirectional handshake signals. Each of the interfaces is individually galvanically isolated. Baudrates upto 115 KBAud are supported.

Digital Inputs

The **DGPS** isolated interface converter provides four digital inputs for 24 V signals. The inputs are individually galvanically isolated. The state of each input is monitored by a LED.

The inputs are connected to the TPU of the MC68332, thus all timing acquisition functions of the TPU (Counter, frequency measurement, quadrature decoder,...) are usable. The inputs are capable of generating interrupts on rising and/or falling edges. The input signal frequency is limited to 1 kHz.

Power supply

The **DGPS** converter requires a supply voltage of 18-30 V_{DC}. The board is protected from power supply polarity reversal; an EMV protection circuit assures troublefree operation in an industrial environment.

Memory

The memory configuration of the DGPS can be adapted to the needs of the application:

- up to 512 KByte EPROM (32-pin JEDEC socket)
- up to 512 KByte FLASH, on board programmable
- up to 512 KByte SRAM, with back-up battery

Real-time clock

A real-time clock is buffered by the on board battery and supplies time and date.

Housing Connectors

The **DGPS** converter comes in an aluminum housing in the dimensions 186 x 105 x 80 mm. It can be mounted to a mounting plate or TS-35 DIN rails.

The serial interfaces are connected using one combined 25 pin SubD connector. Power supply and digital inputs are provided by a 12 pin Combicon-connector with pluggable screw terminals.

Programming

The realtime operating system RTOS-UH is in the standard scope of supply and includes drivers for all function blocks. Application programming in ANSI-C, PEARL-90 and according to IEC 61131-3 is supported.