

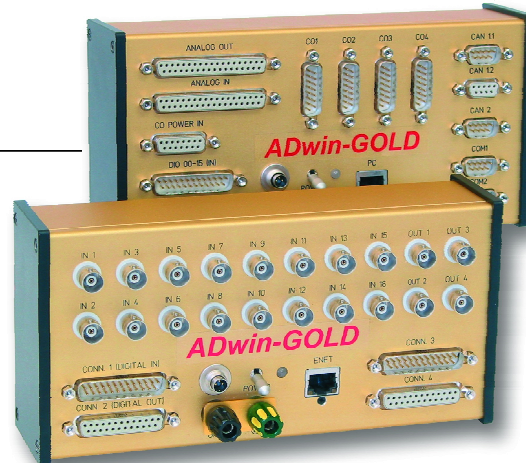
# ADwin-Gold

## Compact Real-Time Designs

The **ADwin-Gold** is a powerful Real-Time system in a very compact and robust design. It includes many system features in a small package at a reasonable price. The **ADwin-Gold** is housed in a reliable, metal enclosure and includes: a fast, local Real-Time CPU and memory; analog and digital inputs and outputs; as well as a USB or Ethernet interface for the communication with a PC. The local CPU enables input and output response times of 1  $\mu$ s or less

The analog inputs are connected via two 8-channel MUX and two PGA to 2 $\times$ 16-bit and 2 $\times$ 14-bit ADCs. Signal acquisition is controlled by the ADwin's CPU, and the sampling rate is determined by the ADC conversion time, MUX settling time, and CPU workload. It is always possible to acquire two channels without any phase-shift, important for correlated signals.

The **ADwin-Gold** has 2- or 8-analog outputs. The output range is  $\pm$ 10V with a settling time of 10  $\mu$ s to FSR and 3- $\mu$ s FSR/10. Parallel updating is achieved by using one DAC per channel, with one register per DAC. It is possible to write new values into the register, and then start the conversion for all channels with a single command synchronously.



**ADwin-Gold** provides 32 programmable digital input and output channels at 5V-TTL/CMOS level, plus an Event input. The channels can be software selected in blocks of 8 as inputs or outputs.

Optional configurations allow additional features such as counters, quadrature encoder interfaces, RS-232/485, automotive CANbus interfaces, CANopen<sup>1</sup>, LINbus<sup>2</sup> and SSI interfaces.

**ADwin-Gold** can be used in laboratories, on a DIN-rail in industrial machines, or in mobile and in-vehicle applications.

<b>ADwin-Gold</b>	
	<b>ADwin-Gold System features:</b> 2 $\times$ 8 analog inputs, $\pm$ 10V multiplexed to 2 $\times$ 16-bit ADC (5 $\mu$ s) and 2 $\times$ 14-bit ADC (0.5 $\mu$ s), 2 analog outputs 16-bit DAC (3 $\mu$ s), 16 digital inputs, 16 digital outputs D-SUB, 1 trigger input, 1 processor ADSP21062, 32-bit, 40-MHz, 256 KB internal RAM, 16 MB ext. RAM, 2m power supply cable to the desktop computer, compact metal enclosure
<b>ADwin-Gold-ENET</b>	<b>ADwin-Gold</b> with integrated Ethernet interface (10/100 MBit/s), BNC sockets for analog signals
<b>ADwin-Gold-D-ENET</b>	<b>ADwin-Gold</b> with integrated Ethernet interface (10/100 MBit/s), D-SUB sockets for analog signals
<b>ADwin-Gold-USB</b>	<b>ADwin-Gold</b> with integrated USB interface, BNC sockets for analog signals
<b>ADwin-Gold-D-USB</b>	<b>ADwin-Gold</b> with integrated USB interface, D-SUB sockets for analog signals
<b>ADwin-Gold Options</b> (manufacturing options only, later upgrading is not possible)	
<b>Gold-CAN</b>	Option of 2 $\times$ CAN-BUS (High-Speed), 2 $\times$ RS-232/485, 4 $\times$ SSI decoder (only available for <b>ADwin-Gold-D</b> )
<b>Gold-CAN-LS</b>	Option of 2 $\times$ CAN-BUS (Low-Speed), 2 $\times$ RS-232/485, 4 $\times$ SSI decoder (only available for <b>ADwin-Gold-D</b> )
<b>Gold-CO1</b>	Option of four 32-bit counters, which can individually operate in the following modes: period width measurement, impulse measurement or up/down counters with clock/direction or 4-edge evaluation. Input signal: 5 V differential (RS422)
<b>Gold-DA</b>	6 additional analog outputs, 16-bit DACs (3 $\mu$ s)
<b>Gold-MEM64</b>	Memory expansion from 16 MB ext. memory to 64 MB and memory expansion from 256 KB internal memory to 512 KB
<b>Gold-Boot</b>	Flash EPROM boot-loader for stand-alone operation without PC, only in combination with an Ethernet interface
<b>Gold-Mount</b>	DIN-rail installation kit
<b>Accessories</b>	
<b>Gold-Pow</b>	External power supply (12V DC) for the <b>ADwin-Gold</b> (10-35V)

1) via software; 2) via software and driver



