

# VxWorks CAN Starter Kit

**Not recommended for new designs!**

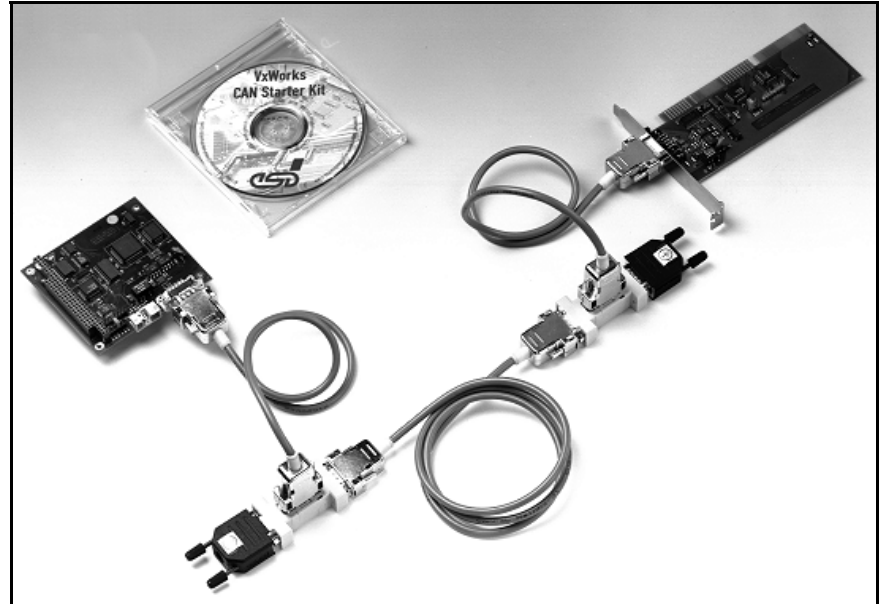
## CAN-Starter-Kit

You always wanted to know

- what is CAN ?
- how does CAN work ?
- how can CAN be applied ?

## Here is your solution

- interface board for PC/104:  
CAN-PC104/200 with the three major CAN controllers
- interface board for ISA bus: CAN-ISA/200
- CAN cables, T-connectors and termination
- drivers, operator software and example program for VxWorks, Windows NT and Windows 95/98
- operating manual



## Three CAN Controllers

The basic module of the kit consists of a CAN-PC104/200 interface board for the VxWorks target. This board is equipped with the three major CAN controllers Intel 82527, Siemens 81C91 and Philips SJA1000, each representing the FULL or BASIC CAN operation mode to meet the user's individual requirements.

The second module is a CAN-ISA/200 for the PC host, which uses a SJA1000 for communication.

The kit comes with the complete CAN wiring: cables, T-connectors and termination plugs. To complete the set esd offers a MBX-Power-PC board as an option.

## Complete VxWorks and Windows Software

Each option of the CAN starter kit is shipped completely with the software drivers. VxWorks for the CAN-PC104/200 module in source code as a low level driver for each of the three CAN controllers including interrupt support, while Windows NT/95/98 for the PC board are objects (DLL).

## More Than an Evaluation Kit

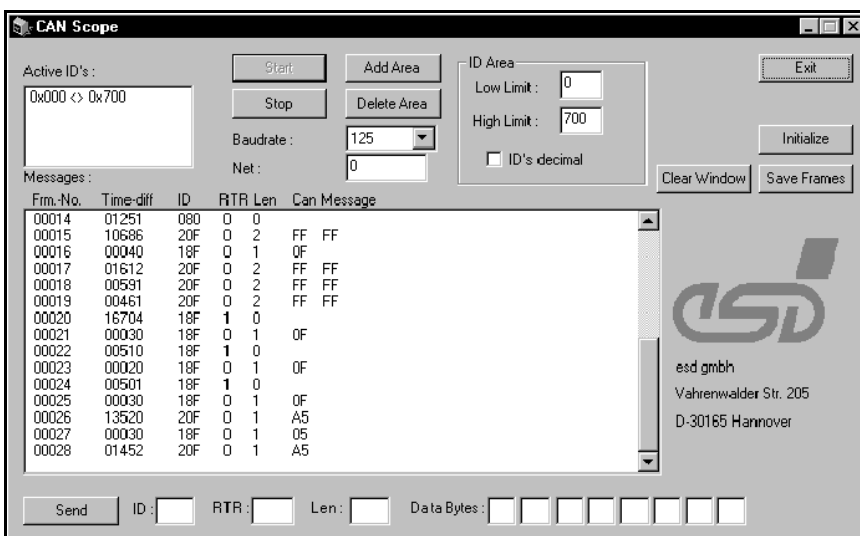
The parts of the CAN starter kit can be reused and comply with the CiA standards and industrial requirements. You can connect further components to your CAN network without great efforts. Of course, all CAN nodes are electrically isolated.

## Really simple

The complete package is designed for gaining knowledge and experience with CAN in an application.

After all components are interconnected according to the documentation and the drivers are installed, you can already start.

With one Mbit per second you can transfer data from the VxWorks to the Windows system and vice versa. Really simple!



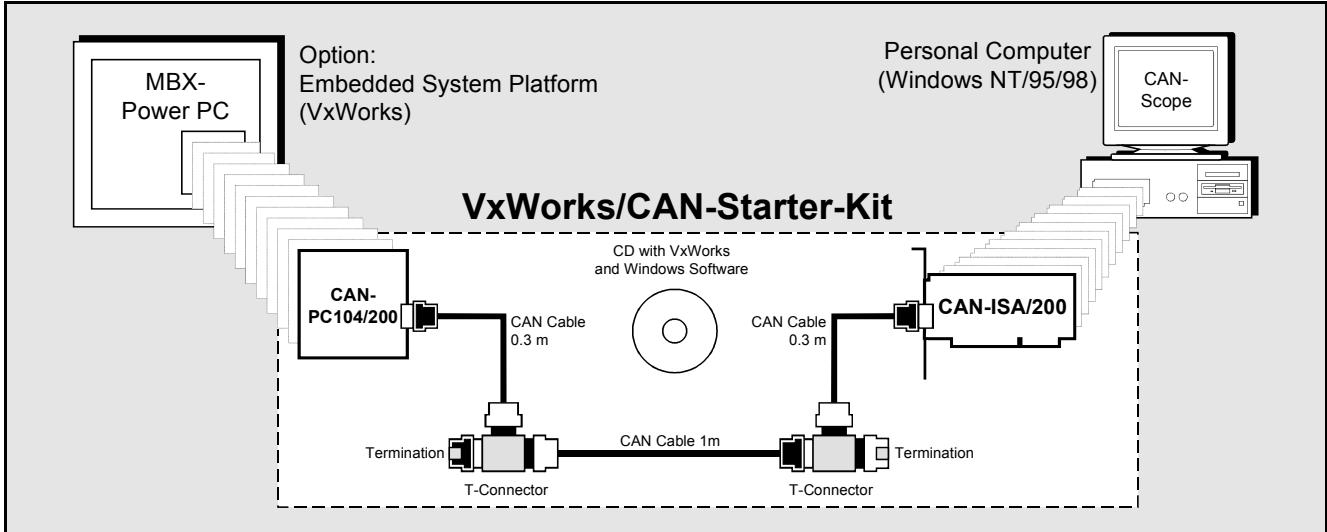
Operator routine CAN-Scope

## CAN-Scope

The Windows software at the PC offers the self explaining monitor and test program CAN-Scope. It is easy to use and shows all messages of the CAN bus. You can even send CAN messages without programming, just tick some boxes of the CAN-Scope window. Moreover, there is a little interpreter that executes batch typed files. All run completely in parallel to your own applications.

A demo program is included as a source code to show you how the PC card can be accessed by your own programs. Caused by the standardized software interface of the esd boards the contained demo program, as well as your application, will also run with other esd PC boards.

# VxWorks CAN Starter Kit



## Technical Specifications:

### CAN-PC104/200:

VxWorks target interface:	PC/104, 8 bit data, IRQ: 1 of 12
CAN controllers:	Intel 82527, Siemens 81C91 and Philips SJA1000
CAN interface:	differential, electrically isolated, 1 Mbit/s, ISO11898

### CAN-ISA/200:

PC host interface:	ISA, 8 bit data, IRQ: 1 of 12
CAN controller:	Philips SJA1000, CAN 2.0 A/B
CAN interface:	differential, electrically isolated, 1 Mbit/s, ISO11898

### CAN wiring:

Cables:	shielded twisted pair bus cables, one male and one female connector each, connector plugs case made of chrome plated plastic
T-connectors:	two female and one male connector each
Termination plugs:	120 ohm termination resistor, 4.8 mm fast-on male connector to connect CAN_GND to earth potential

### Software of CAN Starter Kit:

CAN-PC104/200:	VxWorks driver for each controller of the board
CAN-ISA/200:	Windows NT/95/98 driver, CAN-Scope analysing program, demo program as a source code

### General:

Temperature:	0...50 °C
Humidity:	max. 90 %, non-condensing
Supply voltage of CAN boards:	5 VDC

## Order information:

Designation	order no.
<b>Basic VxWorks Starter Kit</b>	C.2032.02
1 CAN-PC104/200 board with three controllers	
1 CAN-ISA/200 board, CAN2.0A/B, SJA1000	
2 CAN cables 0.3 m	
1 CAN cable 1.0 m	
2 T-connectors	
1 termination plug female	
1 termination plug male	
1 CD-ROM with software drivers and CAN-Scope	
1 set of documentation	
<b>Option: MBX board 821</b>	C.2032.40
1 Motorola MBX board with PowerPC 821, 40 MHz, 4 MB DRAM, 4 MB Flash including VxWorks BSP	
<b>Option: MBX board 860</b>	C.2032.41
1 Motorola MBX board with PowerPC 860, 40 MHz, 4 MB DRAM, 4 MB Flash including VxWorks BSP	
<b>Option: MBX power supply</b>	C.2032.42
1 PC-type power supply for 110 / 230 VAC with cable set for MBX board	
<b>Option: Embedded industrial PC board</b>	A.0510.01
1 CPU AMD 5x86, 133 MHz, 4 MB DRAM, 4 MB Flash, 2x RS-232, Ethernet 10Base T, PC 104 interface, including VxWorks BSP	
<b>Option: CBM-DIO8 Extension</b>	C.2032.44
1 CBM-DIO8 I/O-Module, CSK simulation adapter, power supply for 110-24 VAC or 24 VDC, T-connector, CAN cable 1.0 m	

**CAN Higher Layer Protocols - CANopen or DeviceNet -**  
Available on stock on request for various CAN interfaces.