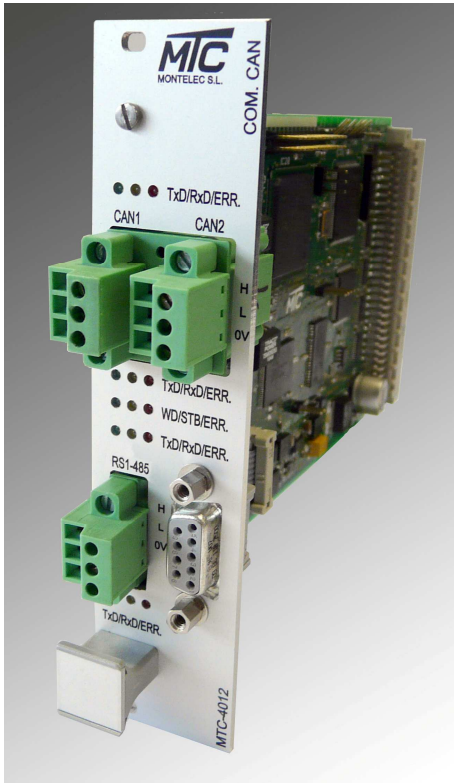


### DESCRIPTION

**MTC-4012** is a communication card with its own processor. It has two **OpenCAN / CAN** ports, one **RS-485** and one **PROFIBUS DP**, all with adaptable internal protocol.



#### CAN

In this mode, it can work accordingly to OpenCAN standard as master or slave with any device supporting EDS file.

On the other hand can also work with proprietary CAN protocol for communications between Montelec PLCs.

#### RS-485

The RS485 is used as general purpose.

#### Profibus DP

Profibus mode allows the card to work as a DP slave, ie to communicate mainly with Siemens PLCs. To this end, three *EDS* configuration files are provided allowing three frame sizes: 16, 32 or 64 words.

This card offers very fast communication with OpenCAN remotes due to a dual port memory and the dedicated processor. With this card, FASTCan programming blocks are not needed.

Two peripheral refreshing modes can be programmed:

- Cyclic reading (RTR)
- On status change detection reading (DEVICE PROFILE)

Some of its main features are:

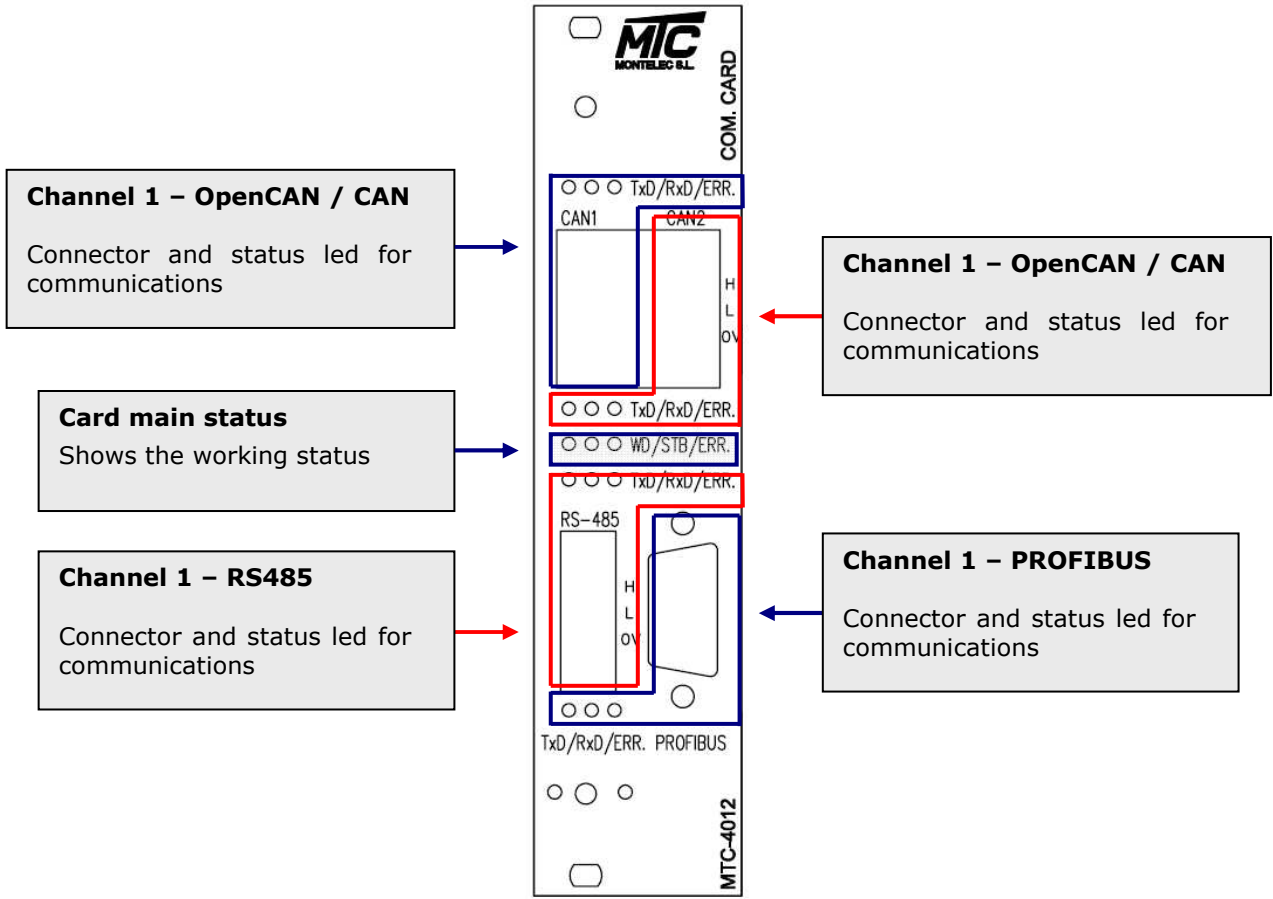
- **Internal adaptable protocol by user**
- **Considerable increase in the refreshing rate of the periphery**
- **All in one card: OpenCAN / CAN, RS485 and PROFIBUS communications**
- **Easy update of the firmware even from internet**

### APPLICATION

Any application requiring the use of communications like OpenCAN / CAN or RS485 between PLCs and remote devices such as:

- **Remote I/O cards**
- **Magneto-resistive displacement sensors**
- **Absolute encoders**
- **Drives**
- **Frame sending between PLCs**

### FRONTAL COVER ELEMENTS DESCRIPTION



Below is the meaning of the LEDs:

| CHANNELS | LED   | Meaning   |
|----------|-------|---|
| CHANNELS | ▪ TxD | Transmission  |
|          | ▪ RxD | Reception   |
|          | ▪ ERR | Error in Transmission / Reception                   |
| CARD     | ▪ WD  | Watchdog. Supervision of communication with the CPU |
|          | ▪ STB | Updating status of the firmware                     |
|          | ▪ ERR | Card configuration error                            |

### TECHNICAL SPECIFICATIONS

|  |
|--|
| <b>Size format</b>   |
| <ul style="list-style-type: none"> <li>▪ Europe size card</li> </ul>   |
| <b>Architecture</b>  |
| <ul style="list-style-type: none"> <li>▪ Own processor</li> <li>▪ PLC DPR interface</li> </ul>   |
| <b>I/O Signals</b>   |
| <ul style="list-style-type: none"> <li>▪ Opto-coupling before TxD and RxD signals</li> <li>▪ DC/DC (5V/5V) stage for 0V isolation with respect to each channel</li> </ul>  |
| <b>LEDs</b>  |
| <ul style="list-style-type: none"> <li>▪ Data flow .....TxD, RxD (normally flashing)</li> <li>▪ Transmission or reception error .....ERR (normally OFF)</li> <li>▪ CPU supervision, Watchdog ..... WD (normally flashing)</li> <li>▪ Firmware updating ..... STB (normally OFF)</li> </ul>                     |
| <b>OpenCAN / CAN</b>   |
| <ul style="list-style-type: none"> <li>▪ Ports quantity .....2</li> <li>▪ End of line resistor .....switch configurable (<math>\infty\Omega</math>, 60<math>\Omega</math>, 120<math>\Omega</math>)</li> <li>▪ Minimum speed .....10Kbit/s</li> <li>▪ Maximum speed ..... 1Mbit/s</li> </ul>                    |
| <b>RS-485</b>  |
| <ul style="list-style-type: none"> <li>▪ Ports quantity .....1</li> <li>▪ End of line resistor .....switch configurable (<math>\infty\Omega</math>, 60<math>\Omega</math>, 120<math>\Omega</math>)</li> </ul>  |
| <b>PROFIBUS</b>  |
| <ul style="list-style-type: none"> <li>▪ Ports quantity .....1</li> <li>▪ Mode ..... slave Profibus DP</li> <li>▪ Communication speed ..... self-configurable</li> <li>▪ EDS file   ..... supplied by Montelec</li> <li style="padding-left: 40px;">  ..... configurable frames of 16, 32, 64 words</li> </ul> |