

# COM364

## Universal Interface

The Softcon universal interface is used in a variety of applications, generally converting data from one format to another, e.g. from serial to data/clock, from data/clock to Wiegand. The interface is also used in small installations as a batch reader, opening a latch (via the on-board relay) when cards match a certain criteria, e.g. the site and client code are correct, or ISO mag cards with 10 characters are read.

The functions of the interface depend on the software (SW) loaded in the on-board processor. Available options are selected via DIP switched. The current SW options available are:

### 1. Barcode Interface

The interface reads data from serial reader tied to the serial RS232 port at selected baud, 1 start, 1 stop, 8 bits, selected parity. Data is sent to the data/clock port, numbers only.

Current Implementations available are:

- ✓ **Universal Barcode:**
- ✓ The data can only be numbers (e.g. 1859285). The numbers are transmitted starting with the number set by DIP2, ending with the number set by DIP 1. For example if DIP2 is set to 2 and DIP1 is set to 5, 8592 is sent.
- ✓ **MVG Barcode:**
- ✓ A fixed amount of characters and certain characters at certain positions are expected.
- ✓ **Standard Barcode:**
- ✓ The eleven numbers read off the barcode are sent.
- ✓ **Suni Barcode:**
- ✓ Two types of cards are used, one contains certain letters at fixed positions which must reference to the selection of DIP1, while the other expects certain fixed numbers located at fixed card locations.
- ✓ **Genref Barcode:**
- ✓ Data on the card starts with three characters GEN, followed by 5 numbers, followed by other data.
- ✓ **STFW Barcode:**
- ✓ Data on the card starts with the upper case letters STW and is followed by 1 to 4 numbers. The data sent is 5 digits and is the number read from the card.
- ✓ **Medu Barcode:**
- ✓ Data on the card contains 1 to 8 digits, preceded with characters P,S or other. The first number sent is 0 (if P read), 2 (if S read) or 4 (if other read), followed by the last 7 digits read (with leading zeroes if less than 7 was read).
- ✓ **BAFR Barcode:**
- ✓ 6 characters are read from the card. Data send start with the digits 133, followed by the 6 digits.
- ✓ **FRTI Barcode:**
- ✓ Data on the cards has 6 digits. Data send always starts with 2 zeroes, followed by 6 digits read from the card.
- ✓ **End8 Barcode:**
- ✓ The interface sends the last 8 digits of 10 digits read from the card.



Photo5

### 2. Mag Interface

The data read from MAG cards is transmitted on the serial RS232 port at 9600 baud, 1 start, 1 stop, 8 bits, and no parity. The data string ends with a carriage return (0D hex).

### 3. Wiegand Interface

The data read from 26 to 34 bit Wiegand cards is transmitted as 8 characters on the serial RS232 port. The data string ends with a carriage return (0D hex). The data is also sent to the data/clock interface.

The baud and parity is with DIP1 (5 to 8). The mode is set with DIP1 (8) and the client and site code with DIP2 and DIP1 1 to 4 respectively:

<b>DIP1 (1 to 4)</b>	<b>Site code.</b>	On = 0, off = 1. SW1-1 is LSB (e.g. 1 and 3 off = site 5).
<b>DIP1 (1-5, 1-6)</b>	<b>Baud rate.</b>	9600 = off, off 4800 = on, off 2400 = off, on 1200 = on, on
<b>DIP1 (7)</b>	<b>Parity.</b>	No parity = off Even parity = on
<b>DIP1 (8)</b>	<b>Mode.</b>	Normal = off Special start characters = on. Data is; 05xxxx01? 0 where xxxx is card number.
<b>DIP 2 (1 to 8)</b>	<b>Client code.</b>	On = 0, off = 1. SW1-1 is LSB (e.g. 5 on = client 239).

If client=255 (DIP 2 all off) and site=15 (DIP 1, 1 to 4 off), client and site is ignored and data string contains the client and site code and card number. Client=0 (DIP 2 all on) and site=0 (DIP 1, 1 to 4 on), client and site is ignored and data string contains 5 digits card number. Any other client and site code settings are checked and the data is only sent if the client and site codes of the cards are correct – data is 5 characters card number. When parity errors are read from the reader or the client or site are incorrect (except site/client set to 0 or 255/15), the red LED is displayed, else green is displayed and the latch is opened.

Should the interface receive from the serial port, the reader transmits debugging information when a card is read.

# COM360/1

## Optic Fiber Converter

Converts copper links (RS232/RS485) to Fiber optical links.

Provides fiber optical Local Area Network in multi-drop or ring configurations.

Enhances the cable length to 4700M between nodes/repeater (based on multi- or single-mode fiber).

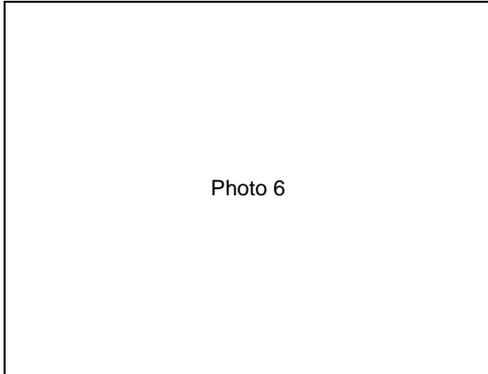


Photo 6

## Features

- ✓ Converts copper networks to Fiber optic networks.
- ✓ Reduces the probability of lightning damage.
- ✓ Multi-mode or Single-mode.
- ✓ SMA connectors or ST connectors. Increased distance between nodes, no limit to total LAN length as with copper.
- ✓ Unit can be housed in the standard Softcon controller box for easy installation.
- ✓ Transmit/Receive status LED's for diagnostic purposes.

## Offices

Pretoria  
Cape Town

## Distributors

Australia	UK
France	Spain
Holland	Zimbabwe

softcon@softconserv.com  
www.softconserv.com

## Communication Interface

The COM360/1 types of communication interfaces help **SOFTCON** products to cope with the problem of long cable runs.

### COM360/361 - OPTIC FIBRE CONVERTER

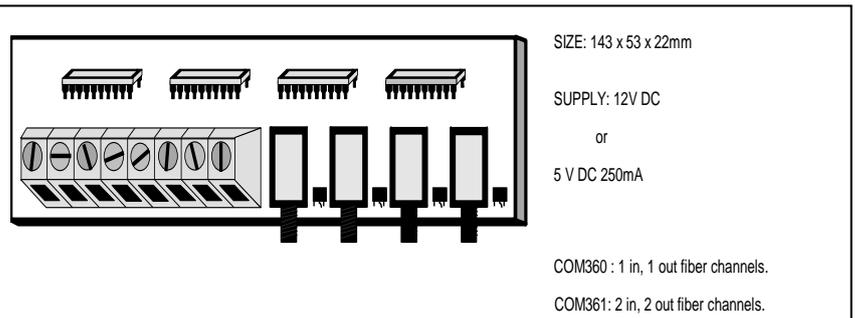
**Softcon's** optic fiber converter converts from RS232 or RS485 to fiber, or from fiber to RS232. Two versions are available:

- COM360 - RS232/RS485 to 2 channel fiber.
- COM361 - RS232/RS to 4 channel fiber.

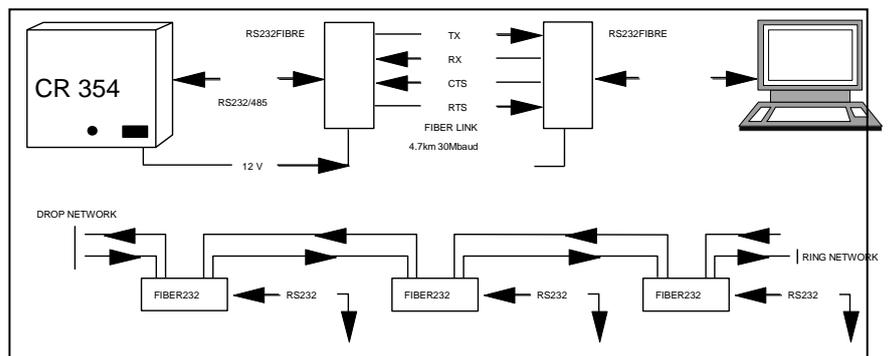
One converter is required at each device connected to the fiber, including at the mux card.

The use of an optic fiber LAN, ensures that the total distance which can be covered by the LAN increases substantially, and the distance between each controller connected to the LAN increases to 4700 meters.

## RS232/RS485 to Fiber Converter



## Configurations



Softcon

SOFTWARE CONTROL SERVICES USA, INC  
SOFTWARE CONTROL SERVICES (PTY) LTD

Control by micro processor is our business

"You name it, we'll control it"