

Pliant: readily yielding to influence

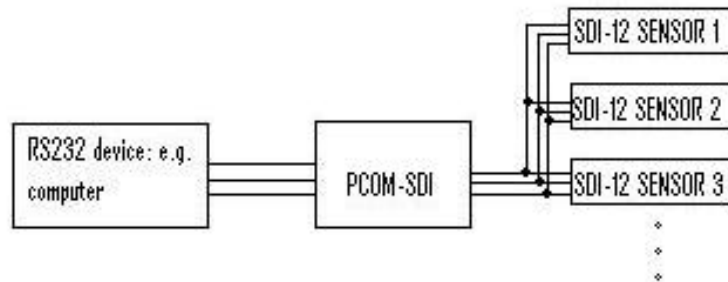
## PCOM-SDI

RS232 to SDI-12 Communications interface



### PCOM-SDI: Pliant RS232 to SDI-12 Master Interface

The AMASSER **PCOM-SDI** provides an interface between RS232 and SDI-12 devices. In its standard configuration it serves as an interface between a RS232 host such as a computer or programmable controller, and a SDI-12 slave such as a sensor. Alternatively, it can also be configured so that the SDI-12 device is the master. The standard configuration is depicted below.



Supporting up to 10 SDI-12 slaves (sensors), the PCOM-SDI enables its user to operate in SDI-12 transparent mode thus bestowing the complex protocol restraints of SDI-12 upon the unit. The host need only send ASCII messages to the AMASSER PCOM-SDI via its RS232 port to obtain data from or setup the SDI-12 sensors on the bus. These messages can be any SDI-12 command supported by the sensors. Upon receiving a command from the RS-232 host, the PCOM-SDI then forwards it to the sensor and performs all the necessary communications and timings to obtain the final response from the sensor as prescribed by the SDI-12 protocol, including the D command, retries, timeouts, etc... The PCOM-SDI then transmits the response from the SDI-12 sensor to the host via the RS232 interface.

#### **Firmware Support Providing:**

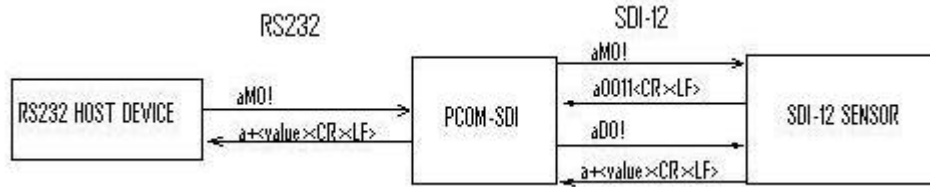
- SDI-12 Transparent Mode (Manual SDI-12 Communications)
- Master SDI-12 task engine, auto retries, auto data buffer retrieval & auto command time-outs
- Simple RS232 Host Protocol
- up to 72 byte messages
- Configurable from Auto-retrieve mode to Manual-Retrieve mode (see below)

#### **Hardware Features:**

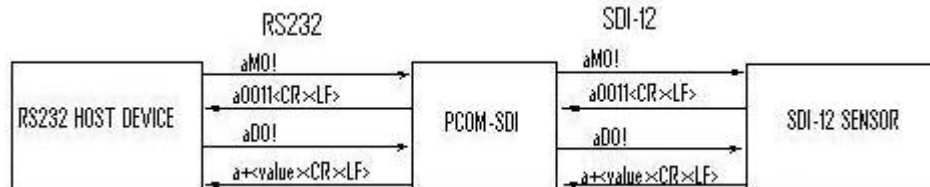
- 1 SDI-12 Serial Digital Interface (10 sensor support) port
- RS-232 Communications Port at 9600 baud (or 19200 baud)

## AUTO-RETRIEVE vs MANUAL-RETRIEVE MODE

The PCOM-SDI is user-configurable to either automatically retrieve data from the sensor:



or to do so in Manual-Retrieve mode:



### SDI-12 Protocol

For detailed information on SDI-12 protocol, visit the SDI-12 Support Group's web-site at <http://www.sdi-12.org>

# PCOM-SDI

### Specifications

Processor - Atmel 89S8252  
Word Size : 8 bit data - 8 bit instruction  
Memory : 8 Kbytes ROM, 256 bytes RAM  
EEPROM 2 kbytes

#### Standard Input/Output

- ASCII strings via RS232 data line (standard configuration: RS232 master)  
Can also be configured for SDI-12 master
- SDI-12 port for SDI-12 slaves (standard configuration): Master SDI-12 task engine, auto retries, auto data buffer retrieval & auto command time-outs.  
Can also be configured for RS232 slaves

#### Connectors

- DB9S (RS232)
- Tinned ends (SDI-12, +12VDC, Ground)

#### Power Supply

Requires 8 to 30 VDC source

#### PHYSICAL CHARACTERISTICS

*Custom packaging available*

**PCOM-SDI:** Height - 25 mm. (1 in.)  
Width - 60 mm. (2.3 in.)  
Depth - 95 mm. (3.75 in.)

#### Environmental Characteristics

Operating : -40 to +55 C  
Storage : -60 to +100C  
Humidity : <= 100% non-condensing

The above information is believed to be true at the time of printing. AMASS Data Technologies Inc. reserves the right to modify specifications without notice. All trademarks are owned by their respective companies.

AMASS Data Technologies Inc., 812 Proctor Avenue, Ogdensburg, New York 13669  
TEL: (819) 827-0077 FAX (819) 827-4305 Email: [amassinf@amassdata.com](mailto:amassinf@amassdata.com)