

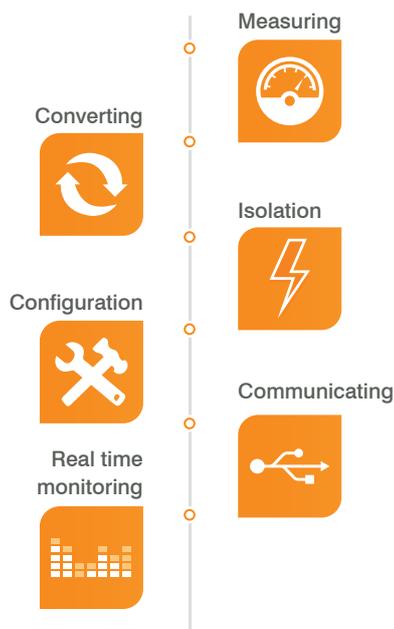


ASCON ( Analog Signal Converter )

## Defining ASCON Transducers in simple terms

**ASCON transducer** is an electronic device that changes one form of energy into another. It converts temperature, voltage and current parameters into V, mV, mA and RS485 outputs.

### Which actions are executed?



ASCON transducers **measure** input parameters and **convert** them to another signal form continuously.

Input, output and supply parts are electrically isolated from one another in order to provide protective **isolation**.

It is possible to **configure** different input ranges and output types by means of adjustment knobs.

Measured values can be transmitted to a PC through serial **communication** so that **real time analog signal monitoring** without PLC analog card is possible.

### Which market are they used frequently?

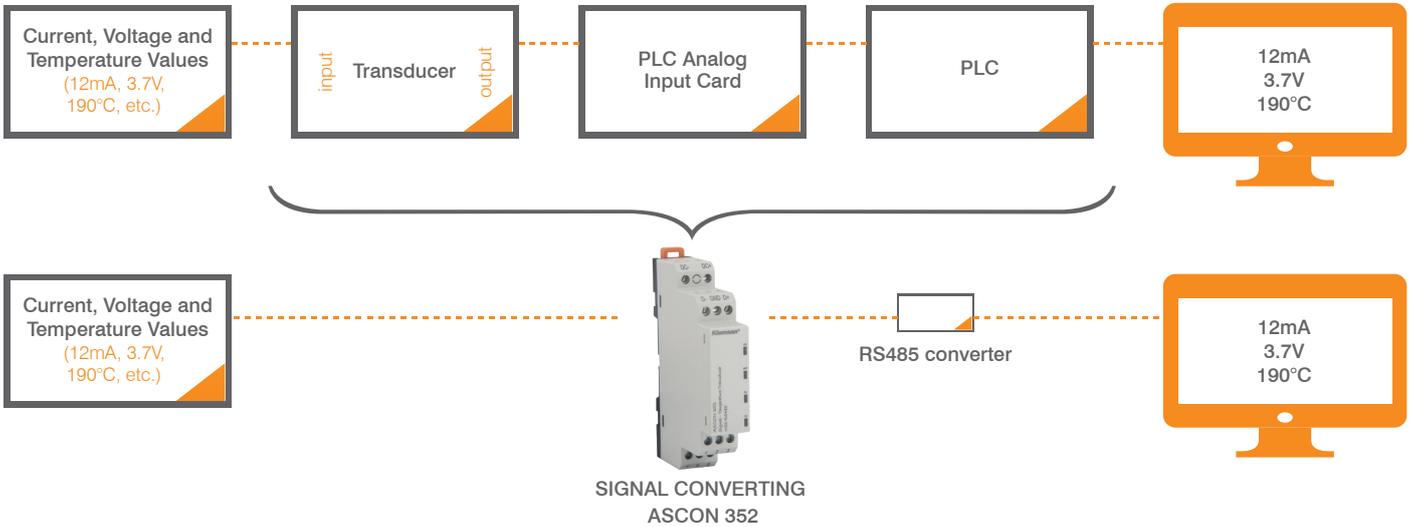
- Scada System
- Electric power plants and substations
- Industrial Process
- Energy management systems
- Medium voltage modular cabinets
- Control and safety systems
- Telecontrol systems

### Benefits and Advantages

- Serial Data Output
- Extended input range for voltage and current signals
- Extended temperature input range for PT100 and termocouple sensors
- Easy configuration with knobs
- Excellent linearity
- Electrical isolation with a high test voltage
- Low residual noise
- Highly compact and light weight
- Self-Extinguishing plastic housing

# Real Time Analog Signal & Temperature Monitoring

Voltage, current and temperature values which are read by ASCON 352, can be monitored instantaneously by a computer through serial data output. No need to use PLC analog input cards anymore.



## Industrial Process Applications



Measurement of temperature is a vital part of instrumentation in petrochemical industries, heating systems, refrigerating applications etc. Thermocouple sensors are often used for their excellent temperature response. ASCON 331 presents best solution with combining TC sensors with PLC/Scada system.

## Air conditioning and liquid temperature measurement



RTD's provide wide temperature input range from  $-150^{\circ}\text{C}$  to  $+800^{\circ}\text{C}$  when accuracy and stability are a requirement of the customer's specification in an industrial process in order to keep it in desired degree.

## I/O applications



Conversion voltage and current of measurands, integration them with SCADA and RTU system.

|                        |       | ASCN 311  | ASCN 321  | ASCN 331   | ASCN 352  |
|------------------------|-------|---|---|--|---|
|                        |       |  |  |   |  |
| Definition             |       | Configurable Signal Transducer  | Configurable PT100 Transducer   | Configurable Thermocouple Transducer   | Signal - Temperature Transducer with RS485  |
| Order Number           |       | 602300  | 602310  | 602320   | 602400  |
| Casing Width(mm)       |       | 17,5  | 17,5  | 17,5   | 17,5  |
| Connection             |       | Screw terminal  | Screw terminal  | Screw terminal   | Screw terminal  |
| Mounting               |       | Rail Mount  | Rail Mount  | Rail Mount   | Rail Mount  |
| Supply Voltage         |       | 11-30 VDC   | 11-30 VDC   | 11-30 VDC  | 11-30 VDC   |
| Input                  | Type  | DC Voltage and Current (mV,V,mA)  | PT100 (2,3,4 wires)   | Termocouple (J,K,E,R and S types)  | mV, V, mA, PT100 (2, 3 and 4 wire) and Termocouple (J,K,E,R and S types )           |
|                        | Range | 30 signal combinations; 4-20mA, 0-10V, ... etc                                    | -150°C .. 800°C configurable  | J : -200°C .. 1200 °C configurable<br>K : -200°C .. 1350 °C configurable<br>E : -200°C .. 950 °C configurable<br>R: -50°C .. 1750 °C configurable<br>S : -50°C .. 1750 °C configurable | ASCN 352 involves all input ranges which are indicated in left tables.              |
| Output                 | Type  | DC Voltage and Current (mV,V,mA)  | DC Voltage and Current (mV,V,mA)  | DC Voltage and Current (mV,V,mA)   | RS485 data output   |
|                        | Range | 10 signal combinations; 4-20mA, 0-10V, ... etc                                    | 10 signal combinations; 4-20mA, 0-10V, ... etc                                    | 10 signal combinations; 4-20mA, 0-10V, ... etc   | -   |
| Isolation              |       | 3 way - 1.5 kV Rms  | 3 way - 1.5 kV Rms  | 3 way - 1.5 kV Rms   | 3 way - 1.5 kV Rms  |
| Communication Protocol |       | -   | -   | -  | Modbus RTU  |