

tip	sipariş numarası
ASCON352	602 400

teknik özellikler

Giriş tipi	mV, V, mA, PT100 (2, 3 ve 4 telli) ve TC (J, K, E, R ve S tipi)		
Giriş sinyal aralığı	0 .. 60mV 0 .. 100mV 0 .. 250mV 0 .. 500mV 0 .. 1V 0 .. 2V 0 .. 2.5V 0 .. 5V 0 .. 10V 0 .. 20V	-60 .. 60mV -100 .. 100mV -250 .. 250mV -500 .. 500mV -1 .. 1V -2 .. 2V -2.5 .. 2.5V -5 .. 5V -10 .. 10V -20 .. 20V	0 .. 5mA 0 .. 10mA 0 .. 20mA -5 .. 5mA -10 .. 10mA -20 .. 20mA 4 .. 20mA 0 .. 24mA 4 .. 24mA 0 .. 12mA
Giriş sıcaklık aralığı (PT100)	-150°C .. 800°C arası ayarlanabilir		
Giriş sıcaklık aralığı (TC)	J : -200°C .. 1200°C arası ayarlanabilir K : -200°C .. 1350°C arası ayarlanabilir E : -200°C .. 950°C arası ayarlanabilir R : -50°C .. 1750°C arası ayarlanabilir S : -50°C .. 1750°C arası ayarlanabilir		
Sensör uyarı akımı (PT100)	< 0.5mA		
Maksimum giriş sinyali	30V DC veya 50mA DC		
Giriş direnci	102 kΩ (Gerilim girişi) 30.2 Ω (Akım girişi)		
Ölçüm hatası	< %0.1 Tam skala		
Ara yüz	RS485		
Protokol	MODBUS RTU		
Baudrate	1200 2400 4800 9600 19200 38400 (Default) 57600		
Parite	Yok (Default) Çift Tek		
Besleme gerilimi	11 .. 30V DC		
Güç tüketimi	≤ 15mA @ 24V (I _{LOAD} = 0mA)		
Çalışma sıcaklık aralığı	-20°C .. 60°C		
Koruma	Aşırı gerilim ve ters bağlantı koruması		
İzolasyon	1.5kV _{RMS} (Cont.) , 3kV _{RMS} (5sn)		
IP sınıfı	IP20		
Bağlantı	Vidalı klemens terminali		
Montaj tipi	Raya montaj		

modbus tablosu

Giriş değeri	40001	RO	32 bit float	03H
Ortam sıcaklığı	40003	RO	32 bit float	03H
Giriş tipi	40005	R/W	32 bit integer	03H / 10H
Giriş tipi - seçenek 1	40007	R/W	32 bit integer	03H / 10H
Giriş tipi - seçenek 2	40009	R/W	32 bit integer	03H / 10H
Giriş tipi - seçenek 3	40011	R/W	32 bit integer	03H / 10H
Baudrate	40013	R/W	32 bit integer	03H / 10H
Parite	40015	R/W	32 bit integer	03H / 10H
MODBUS köle ID	40017	R/W	32 bit integer	03H / 10H
Kayıt değeri	40019	WO	32 bit integer	10H

type	order no
ASCON352	602 400

technical specifications

Input type	mV, V, mA, PT100 (2, 3 and 4 wire) and TC (J,K,E,R and S type)		
Input signal range	0 .. 60mV 0 .. 100mV 0 .. 250mV 0 .. 500mV 0 .. 1V 0 .. 2V 0 .. 2.5V 0 .. 5V 0 .. 10V 0 .. 20V	-60 .. 60mV -100 .. 100mV -250 .. 250mV -500 .. 500mV -1 .. 1V -2 .. 2V -2.5 .. 2.5V -5 .. 5V -10 .. 10V -20 .. 20V	0 .. 5mA 0 .. 10mA 0 .. 20mA -5 .. 5mA -10 .. 10mA -20 .. 20mA 4 .. 20mA 0 .. 24mA 4 .. 24mA 0 .. 12mA
Input temperature range (PT100)	-150°C .. 800°C configurable		
Input temperature range (TC)	J : -200°C .. 1200°C configurable K : -200°C .. 1350°C configurable E : -200°C .. 950°C configurable R : -50°C .. 1750°C configurable S : -50°C .. 1750°C configurable		
Sensor excitation current (PT100)	< 0.5mA		
Maximum input signal	30V DC or 50mA DC		
Input impedance	102 kΩ (Voltage input) 30.2 Ω (Current input)		
Measurement error	< %0.1 Full scale		
Interface	RS485		
Protocol	MODBUS RTU		
Baudrate	1200 2400 4800 9600 19200 38400 (Default) 57600		
Parity	None (Default) Even Odd		
Supply voltage	11 .. 30V DC		
Power consumption	≤ 15mA @ 24V (I _{LOAD} = 0mA)		
Operating temperature range	-20°C .. 60°C		
Protection	Over voltage and reverse polarity protection		
Isolation	1.5kV _{RMS} (Cont.) , 3kV _{RMS} (5sec.)		
IP class	IP20		
Connection	Screw terminals		
Mounting type	Rail mounted		

modbus table

Input value	40001	RO	32 bit float	03H
Ambient temperature	40003	RO	32 bit float	03H
Input type	40005	R/W	32 bit integer	03H / 10H
Input type - option 1	40007	R/W	32 bit integer	03H / 10H
Input type - option 2	40009	R/W	32 bit integer	03H / 10H
Input type - option 3	40011	R/W	32 bit integer	03H / 10H
Baudrate	40013	R/W	32 bit integer	03H / 10H
Parity	40015	R/W	32 bit integer	03H / 10H
MODBUS slave ID	40017	R/W	32 bit integer	03H / 10H
Record value	40019	WO	32 bit integer	10H

MODBUS RTU açıklamaları

Giriş tipi 0 : Gerilim / akım
1 : PT100
2 : TC

Giriş tipi "Gerilim / akım" ise;

Giriş tipi - seçenek 1				
	0, 1, 2	3, 4, 5, 6	7, 8, 9	
Giriş tipi - seçenek 2	0	0 .. 60mV	-60 .. 60mV	0 .. 5mA
	1	0 .. 100mV	-100 .. 100mV	0 .. 10mA
	2	0 .. 250mV	-250 .. 250mV	0 .. 20mA
	3	0 .. 500mV	-500 .. 500mV	-5 .. 5mA
	4	0 .. 1V	-1 .. 1V	-10 .. 10mA
	5	0 .. 2V	-2 .. 2V	-20 .. 20mA
	6	0 .. 2.5V	-2.5 .. 2.5V	4 .. 20mA
	7	0 .. 5V	-5 .. 5V	0 .. 24mA
	8	0 .. 10V	-10 .. 10V	4 .. 24mA
	9	0 .. 20V	-20 .. 20V	0 .. 12mA

"Giriş tipi - seçenek 3", değeri mutlaka 9 olmalıdır.

Giriş tipi "PT100" ise;

Giriş tipi - seçenek 1		
0, 1, 2	3, 4, 5, 6	7, 8, 9
PT100-2W	PT100-3W	PT100-4W

"Giriş tipi - seçenek 2", değeri mutlaka 9 olmalıdır.

"Giriş tipi - seçenek 3", değeri mutlaka 9 olmalıdır.

Giriş tipi "TC" ise;

Giriş tipi - seçenek 1				
0, 1	2, 3	4, 5	6, 7	8, 9
J tipi TC	K tipi TC	E tipi TC	R tipi TC	S tipi TC

"Giriş tipi - seçenek 2", değeri mutlaka 9 olmalıdır.

"Giriş tipi - seçenek 3", değeri mutlaka 9 olmalıdır.

Baudrate						
0	1	2	3	4	5	6
1200	2400	4800	9600	19200	38400	57600

Parite		
0	1	2
Yok	Çift	Tek

Köle ID 1 .. 247

Kayıt değeri Değişikliklerin kaydı için 100 yazılmalıdır.

hata durumu bildirimi

Hata Durumu	LED Gösterimi
gerilim çıkışı modu: kısa devre durumu	Err: <input type="checkbox"/>

bağlantılar

Besleme girişi	DC+, DC-
Analog çıkış	V, Gnd (Gerilim çıkış) I, Gnd (Akım çıkış)
Giriş bağlantısı	mV girişi : 4 (+), 5 (-) V girişi : 6 (+), 2 (-) mA girişi : 5 (+), 2 (-) 2 telli bağlantı : 4 ve 3 3 telli bağlantı : 4 ve 2, 3 4 telli bağlantı : 1, 4 ve 2, 3 TC bağlantısı : 4, 5

MODBUS RTU descriptions

Input type 0 : Voltage / current
1 : PT100
2 : TC

If Input type is "Voltage / current";

Input type - option 1				
	0, 1, 2	3, 4, 5, 6	7, 8, 9	
Input type - option 2	0	0 .. 60mV	-60 .. 60mV	0 .. 5mA
	1	0 .. 100mV	-100 .. 100mV	0 .. 10mA
	2	0 .. 250mV	-250 .. 250mV	0 .. 20mA
	3	0 .. 500mV	-500 .. 500mV	-5 .. 5mA
	4	0 .. 1V	-1 .. 1V	-10 .. 10mA
	5	0 .. 2V	-2 .. 2V	-20 .. 20mA
	6	0 .. 2.5V	-2.5 .. 2.5V	4 .. 20mA
	7	0 .. 5V	-5 .. 5V	0 .. 24mA
	8	0 .. 10V	-10 .. 10V	4 .. 24mA
	9	0 .. 20V	-20 .. 20V	0 .. 12mA

"Input type - option 3" value must be a 9.

If Input type is "PT100";

Input type - option 1		
0, 1, 2	3, 4, 5, 6	7, 8, 9
PT100-2W	PT100-3W	PT100-4W

"Input type - option 2" value must be a 9.

"Input type - option 3" value must be a 9.

If Input type is "TC";

Input type - option 1				
0, 1	2, 3	4, 5	6, 7	8, 9
J typeTC	K type TC	E type TC	R type TC	S type TC

"Input type - option 2" value must be a 9.

"Input type - option 3" value must be a 9.

Baudrate						
0	1	2	3	4	5	6
1200	2400	4800	9600	19200	38400	57600

Parity		
0	1	2
None	Even	Odd

Slave ID 1 .. 247

Record value Enter "100" to save the changes

failure indication

Failure Status	LED Indication
voltage output mode: short circuit	Err: <input type="checkbox"/>

connections

Power input	DC+, DC-
Analog output	V, Gnd (Voltage input) I, Gnd (current input)
Input connection	mV input : 4 (+), 5 (-) V input : 6 (+), 2 (-) mA input : 5 (+), 2 (-) 2 wire connection : 4 and 3 3 wire connection : 4 and 2, 3 4 wire connection : 1, 4 and 2, 3 TC connection : 4, 5

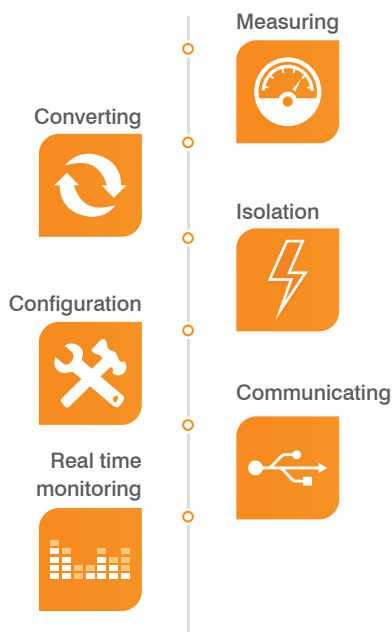


ASCON (Analog Signal Converter)

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?

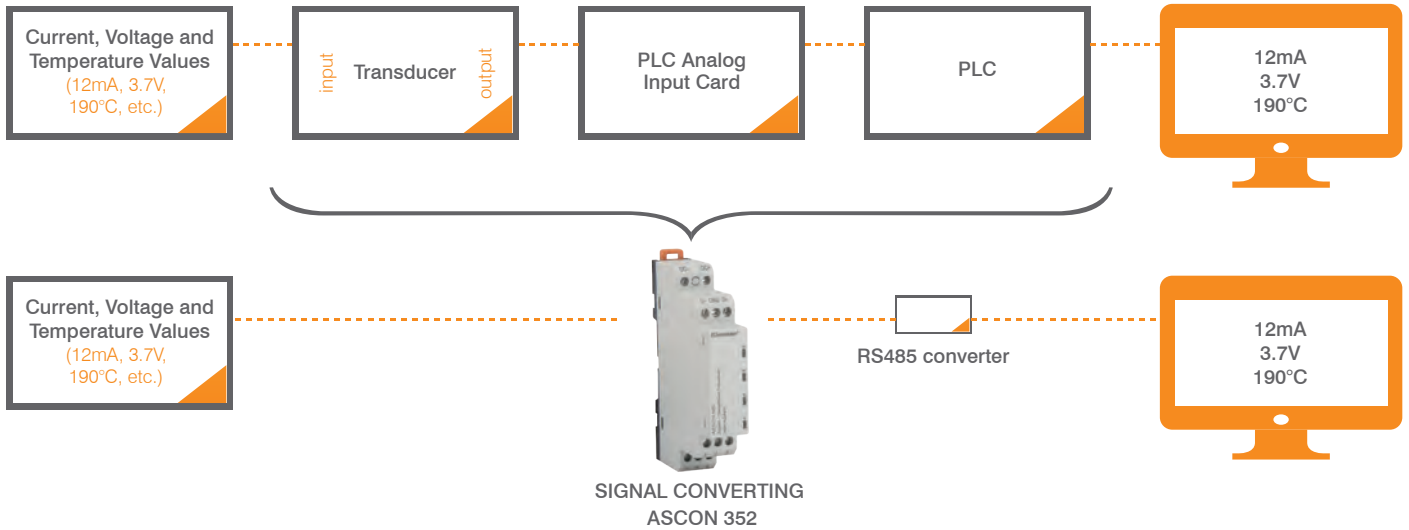
- Scada System
- Electric power plants and substations
- Industrial Process
- Energy management systems
- Medium voltage modular cabinets
- Control and safety systems
- Telecontrol systems

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°C to +800°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 K : -200°C .. 1350 °C configurable E : -200°C .. 950 °C configurable R: -50°C .. 1750 °C configurable 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