



The model AK30 is an universal process indicator with advanced features.

All its inputs, outputs and options are fully user configurable.

APPLICATIONS

The model AK30 is multipurpose process indicator to be used for temperature, pressure, weight, and many other applications.

The instrument can be equipped with an analog retransmission output, serial communications or 24Vdc transmitter power supply.

GENERAL FEATURES

Standard:

Universal Input

Fully configurable input for thermocouple, RTD, voltage, current loop or strain gage.

Strain gage excitation

Gage excitation output: 10Vdc.

Transducer Calibration

The CAL function is specific for plastic melt pressure. (see P500 series of SALVIO transducers).

Alarms

Equipped with 2 SPST fully configurable alarm relay output.

Rear wiring

The wiring is made with screwed terminals. The recommended terminals are 'fork' type.

Options:

AK37 module: To have the 24Vdc transmitter power supply.

AK35 module: User selectable analog retransmission 0..20mA, 4..20mA, 0..5Vdc or 0..10 Vdc.

AK36 module: RS485 MODBUS/RTU protocol serial communications.

SPECIFICATIONS

Case

1/8 DIN 43700 (96x48 mm , horizontal mounting), front removeable.

Display

Type: 5 red digits, 7 LED segments, 13 mm for the process value.
2 alarm status indicators.

Thermocouple Input

User configurable:

Type: J : 0..600°C (Fe-CuNi , IEC584)

L : 0..600°C (Fe-CuNi , DIN43710)

K : 0..1200°C (NiCr-NiAl , IEC584)

N : 0..1200°C (NiCrSi-NiSi , IEC584)

T : 0..400°C (Cu-CuNi , IEC584)

R : 0..1600°C (Pt / 13%Rh-Pt , IEC584)

S : 0..1600°C (Pt / 10%Rh-Pt , IEC584)

Cold junction compensation accuracy: better than 0.5°C after 30 minutes.

Sensor break indication: Up Scale

Measuring units: °C or °F

Measuring resolution: 14 bit

Measuring accuracy: better than +/- 0.25% fsv (full scale value).

RTD Input

2 user configurables ranges:

-99.9..200.0°C Pt100 (IEC751)

-200..600°C Pt100 (IEC751)

Configuration: 3 wires

Sensor break indication: Up Scale

Measuring units: °C or °F

Indicating resolution: 1 or 0.1 °C/°F

Measuring accuracy:

Better than +/- 0.3°C in the range of -99..200.0°C
and +/- 1°C in the range of -200..600°C

Linear current input

Input signal: 0..20mA or 4..20mA , user configurable.
Measuring range: configurable between 0 and 99999.
Sensor break: Up Scale.
Configurable decimal point.
Input impedance: 150Ω

Linear voltage input

Input signal: 0..5Vdc or 0..10Vdc, user configurable.
Measuring range: configurable between 0 and 99999.
Sensor break: Up Scale.
Configurable decimal point.
Input impedance: > 1MΩ

Strain Gage input

350Ω strain gage.

Transducer excitation

Gage excitation: 10Vdc (100 mA)

Alarm relays

SPST relay (1A@250 Vac).

Transmitter power supply (as option)

24 Vdc output (40mA).

Power supply

85..265 Vac , 50/60 Hz.
Optionally: 21..53 Vac/Vdc.

Power consumption

8VA.

Room conditions

Operating: 0..50°C
Storage: -10..60°C
Humidity: 0..95 % HR without condensation

Protection degree

IP50 in the front

Case

ABS self extinguishing

Dimensions

48 x 96 x 98 mm.

Panel cutoff

45,5 x 91,5 mm. (+/- 0,5 mm.)

Weight

220 grs.

CE conformity (in industrial and commercial environment)

Safety: EN61010

Immunity EMI: EN50082-1

EN61000-4-2, electrostatic discharges

EN61000-4-3, radiated fields

EN61000-4-4, burst

EN61000-4-5, surge

EN61000-4-6, injected currents

EN61000-4-8, magnetic field

EN61000-4-11, PQT

EMI emission: EN50081-1

EN55022-b, conducted

EN55022-b, radiated

Armonics: EN61000-3-2

Voltage variations: EN61000-3-3

OPTIONS

All options are Plug & Play and user configurable

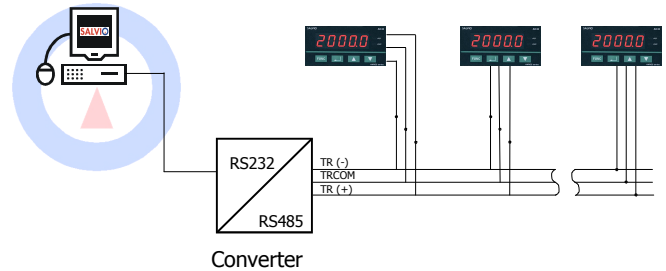
RS485 serial communications

Multiple instruments linked via a single communications loop with MODBUS/RTU™ protocol (AK36 module).

There is the **AKROSOFT** software for an easier configuration

The communications link is RS485 , 2 wire + common , half duplex.

There is an specific instructions manual for the communications protocol.



Linear retransmission

The AK30 indicator can be equipped with the AK35 module that will install the user configurable analog retransmisión output.

Can be configured as direct or reverse. The range is also user configurable.

Can be selected as:

0..20 mA (500Ω max.)

0..5 Vcc (20 mA max.)

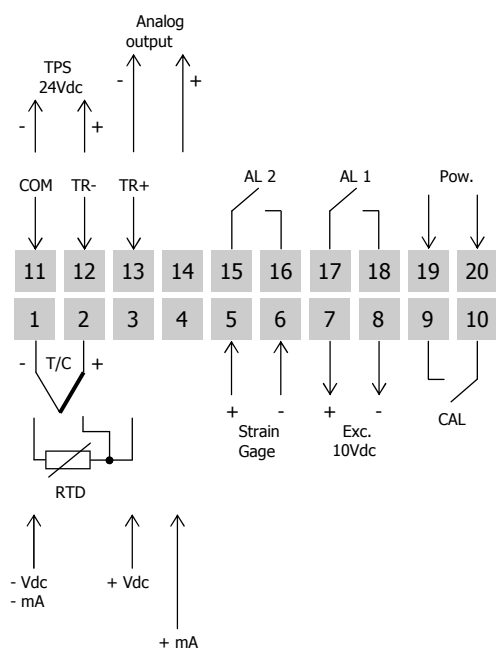
4..20 mA (500Ω max.)

0..10 Vcc (20 mA max.)

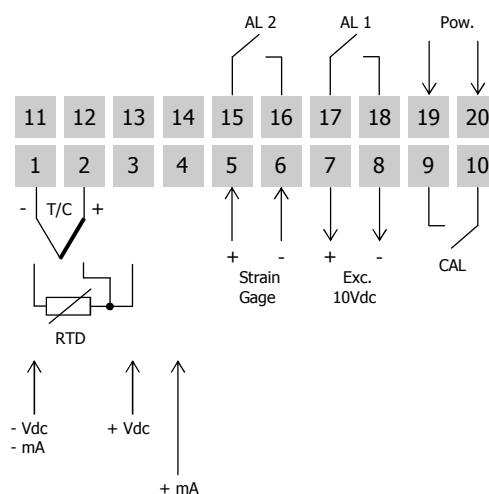
Transmitter power supply

With the AK37 module, the instrument can be equipped with a 24Vdc power supply for an anlog transmitter.

Wiring depending on the options



Base wiring



Ordering guide

Model	Base Options	Power Supply
	0: No options 1: AK35 analog output 2: AK36 serial communications 4: AK37 transmitter power supply	1: 85..265 Vac 50/60 Hz 2: 21..53 Vac/Vdc
AK30	1	1

Example: AK30-11

The AK35, AK36 and AK37 can be ordered separately.

SALVIO BUSQUETS, S.A.
 Les Corts, 10
 08349- CABRERA DE MAR (BARCELONA)
 Tel: (+34) 937566234 Fax: (+34) 937566046
 www.salbus.com



The model AK32 is an industrial indicator with 2 input channels.

The first channel can be configured for process or temperature signals. The second channel is to be used for strain gage pressure reading.

All its inputs, outputs and options are fully user configurable.

APPLICATIONS

The main application for the AK32 indicator is to be used in temperature and pressure monitoring in plastic extrusion processes.

The instrument can be equipped with an analog retransmission output, serial communications or 24Vdc transmitter power supply.

GENERAL FEATURES

Standard:

Universal Input

Fully configurable input for thermocouple, RTD, voltage, current loop or strain gage.

Strain gage excitation

Gage excitation output: 10Vdc.

Transducer Calibration

The CAL function is specific for plastic melt pressure. (see P500 series of SALVIO transducers).

Alarms

Equipped with 2 SPST fully configurable alarm relay output.

Rear wiring

The wiring is made with screwed terminals. The recommended terminals are 'fork' type.

Options:

AK37 module: To have the 24Vdc transmitter power supply.

AK35 module: User selectable analog retransmission 0..20mA, 4..20mA, 0..5Vdc or 0..10 Vdc.

AK36 module: RS485 MODBUS/RTU protocol serial communications.

SPECIFICATIONS

Case

1/8 DIN 43700 (96x48 mm , horizontal mounting), front removeable.

Display

Type: dual display, 5 red digits, 7 LED segments, 13 mm for the process value.

2 alarm status indicators.

Thermocouple Input

User configurable:

Type: J : 0..600°C (Fe-CuNi , IEC584)

L : 0..600°C (Fe-CuNi , DIN43710)

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R : 0..1600°C (Pt / 13%Rh-Pt , IEC584)

S : 0..1600°C (Pt / 10%Rh-Pt , IEC584)

Cold junction compensation accuracy: better than 0.5°C after 30 minutes.

Sensor break indication: Up Scale

Measuring units: °C or °F

Measuring resolution: 14 bit

Measuring accuracy: better than +/- 0.25% fsv (full scale value).

RTD Input

2 user configurables ranges:

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Configuration: 3 wires

Sensor break indication: Up Scale

Measuring units: °C or °F

Indicating resolution: 1 o 0,1 °C/°F

Measuring accuracy:

Better than +/- 0.3°C in the range of -99..200.0°C
and +/- 1°C in the range of -200..600°C

Linear current input

Input signal: 0..20mA or 4..20mA , user configurable.
Measuring range: configurable between 0 and 99999.
Sensor break: Up Scale.
Configurable decimal point.
Input impedance: 150Ω

Linear voltage input

Input signal: 0..5Vdc or 0..10Vdc, user configurable.
Measuring range: configurable between 0 and 99999.
Sensor break: Up Scale.
Configurable decimal point.
Input impedance: > 1MΩ

Strain Gage input

350Ω strain gage.

Transducer excitation

Gage excitation: 10Vdc (100 mA)

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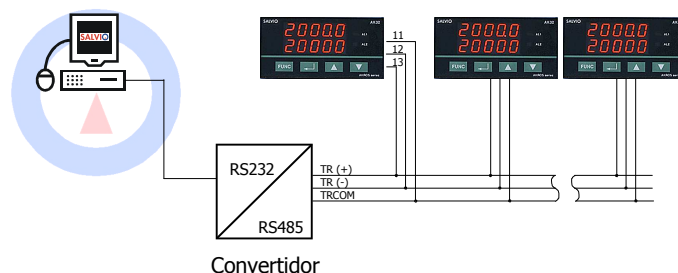
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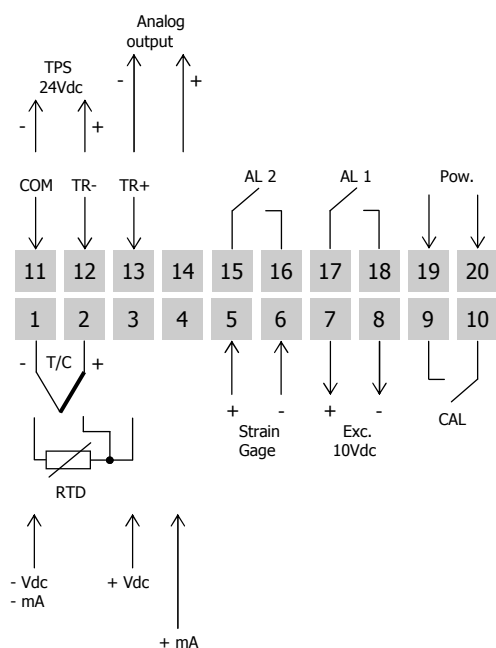
4..20 mA (500Ω max.)

0..10 Vcc (20 mA max.)

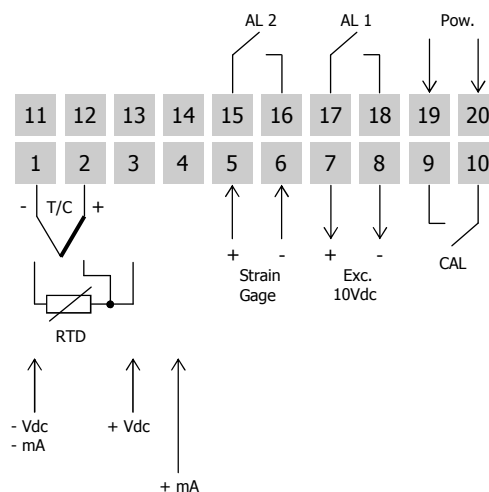
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Wiring depending on the options



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