



AMPLIFIER

AS2TC

Adjustment manual

AS2TC_07_03.19_EN_U

TECHNICAL FEATURES

The weight conversion is done by a ADC Σ 24-bit converter.

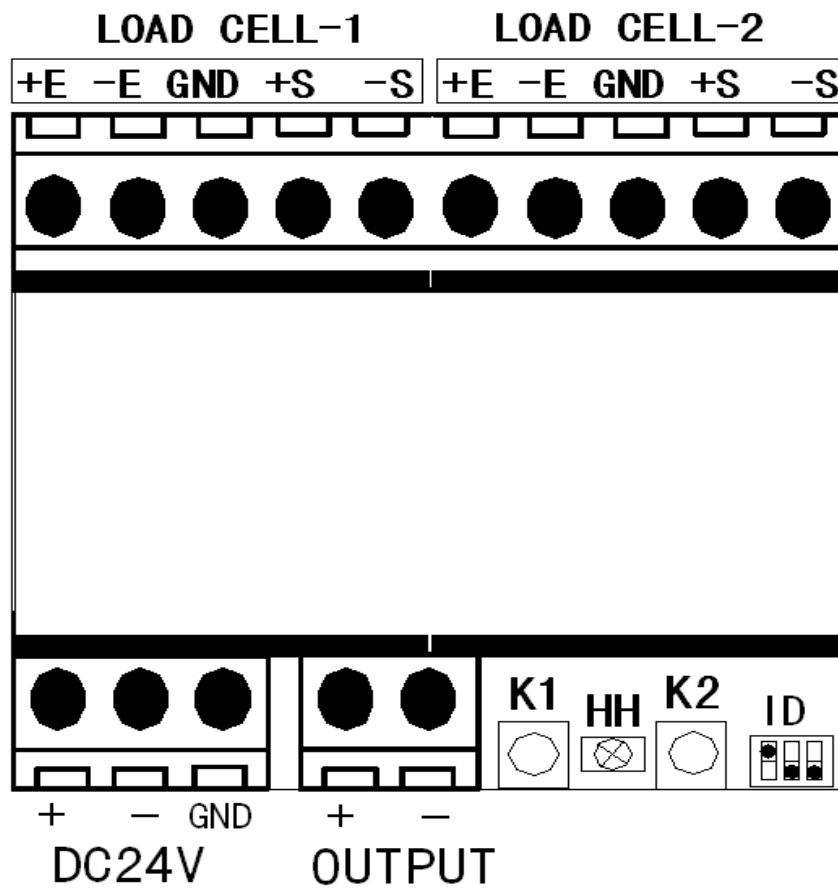
Full digital conversion, no analogue controllers such as potentiometers.

Analogue output is debugged by two buttons, zero value and full scale value only need to be set at the same time.

1 Accuracy:	1/10000
2 Non-linearity:	$\leq 0.008\%$ F.S
3 Thermal drift zero:	$\leq 0.4\mu\text{V} /$
4 Temperature coefficient in full range:	$\leq 10\text{ppm} /$
5 Input signal range in full range:	-30 mV ~ + 30mV
6 Mimic imputation signal sensitivity:	0.5uV / d (Minimum) 1.5uV / d (recommended)
7 Adjustment range:	+ - 50% FS

8 Display:	There is no display
9 Working temperature:	-30 °C ~ 60
10 Relative humidity:	≠ 90% (condensation)
11 Power supply:	+18 ~ + 26VDC,> 0.5A
12 Load cell excitation voltage:	DC 5V 1.5A
13 Optional outputs:	0 ~ 5V, 0 ~ 10V, 4 ~ 20mA

CONNECTION DIAGRAM



LOAD CELL CONNECTION

+E: Power supply + load cell

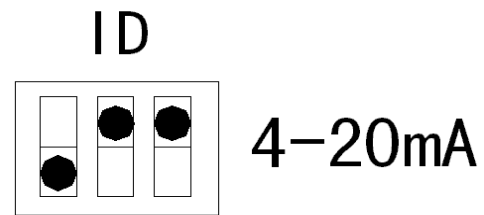
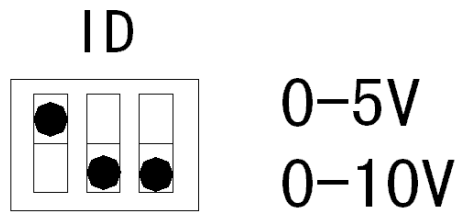
-E: Power supply - load cell

GND: Ground

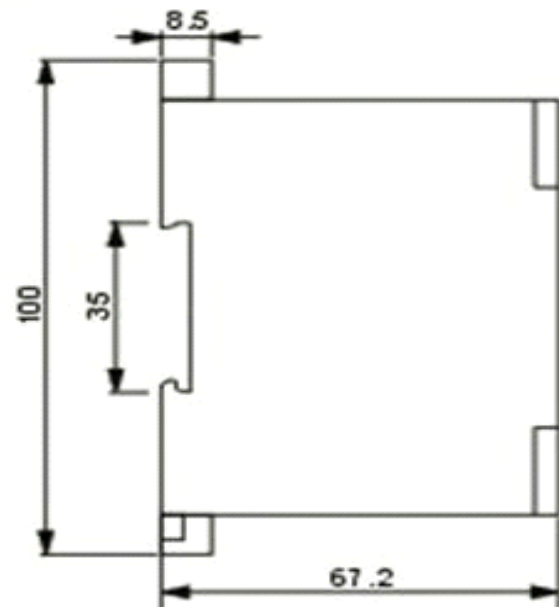
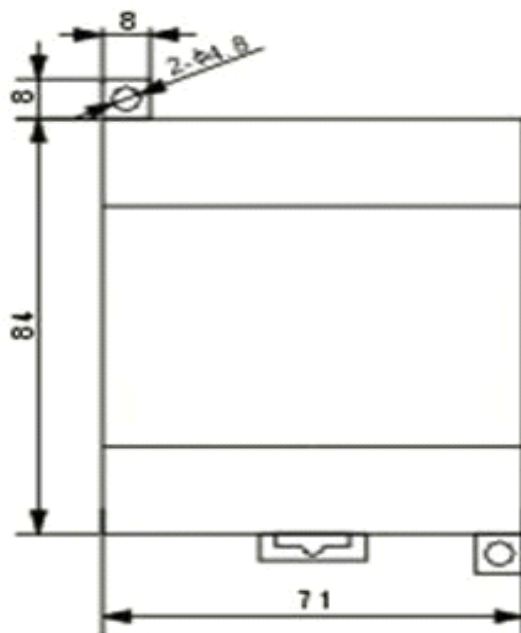
+S: Signal + load cell

-S: Signal - load cell

SWITCH CONFIGURATION



Dimensions in mm



STARTING UP THE EQUIPMENT

Zero calibration

With the weighing system unloaded, press and hold the K1 button for 5 seconds until the HH light is red, then release the K1 button.

While the HH light is active the K1 button will lower the signal and the K2 button will raise the signal, each pressure will increase or decrease slowly, if you keep K1 or K2 pressed for 2 seconds this increase or decrease will be faster.

Perform the necessary operation with K1 or K2 until you read 0V, 4 mA or the zero signal you want to set.

Once you have the desired signal, wait until the HH light goes out and you have set the no-load signal of the weighing system stored in the amplifier.

Calibration of known weight

Place the load on the weighing system and hold it steady, press and hold the K2 button for 5 seconds until the HH light is red, then release the K2 button and you are in the weight adjustment mode.

While the HH light is active the K1 button will lower the signal and the K2 button will raise the signal, each pressure will increase or decrease slowly, if you hold down K1 or K2 for 2 seconds this increase or decrease will be done faster.

Carry out the necessary operation with K1 or K2 until the signal is read in V or mA according to the weight that we have in the weighing system with respect to the full scale of the weighing system.

Once you have the desired signal, wait until the HH light goes out and you will have set the signal proportional to the weight that you have in the weighing system load system stored in the amplifier.

Method of calculating load calibration, analogue output range calibration and analogue output configuration during calibration.

Suppose the maximum weight capacity of the weight is 10 KG, we use a weight of 5 KG during calibration,

Without weight it should show 4mA or 0 V depending, and when we do the weight calibration with 5 kg the signal to adjust should be 12 mA (4mA of the zero + 7,5mA of the 5kg since the full scale 10 kg would be 20mA, if we have 20-4mA = 16 mA of signal in total, doing a simple calculation for each kg we have $1,6\text{mA} \times 5 \text{ kg} = 8\text{mA}$).

In the case of 0-10V volts each kg would be 1V so with 5kg we must adjust until we have a 5V signal.

Please note:

The output protection restriction: when the output exceeds 22 mA in the overload state, it will return to 4 mA.

when the output is higher than 10.5 V in the overload state, it will return to 0 V.