

ARITHMETIC CONVERTER ADDER/SUBTRACTOR for 3 SIGNALS A, B, C

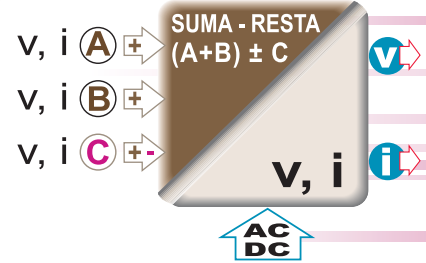
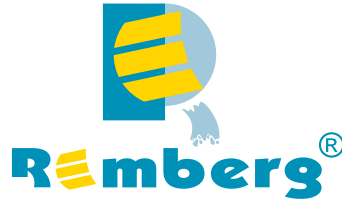
SUMA RESTA Plus

4/20mA

0/10V

A+B

A+B+C



AC DC

A-C

SENSOR EXCITATION

4/20mA (Passive)

+ SUM of 2 or 3 VARIABLES

+ AVERAGE OF 2 OR 3 TEMPERATURES

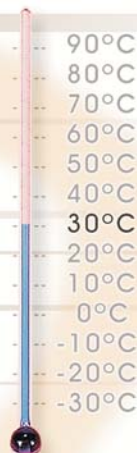
DIFFERENTIAL PRESSURE MEASUREMENT

SUBTRACTION OF 2 VARIABLES

A



B



A+B/2



4bar

A



C

1bar

A - C 3bar



- EXTENDED UNIVERSAL POWER SUPPLY

ACDC 20.. 250VAC-DC

DOUBLE OUTPUT

0/20mA, 4/20mA, 0/5mA

0/10V, 0/5V, -10/+10V

TECHNICAL CHARACTERISTICS

INPUTS A+B+C

2-3 0-4/20mA inputs
 120Ω resistor per input
 Overcurrent protection
 24VDC passive loop excitation

2-3 0/10V inputs
 500K input impedance
 Reverse polarity protection

Leave the unused input unconnected

UNIVERSAL

Power supply voltage 24/230VAC-DC
 Extended range 20.. 250VAC-DC
 Maximum consumption 2,5W

POWER SUPPLY

EMC 2014/30/EU (electromagnetic compatibility)
 DBT 2014/35/EU (Low Voltage Directive) for industrial environments.
 CE Interference immunity according to EN 61000-6-2.
 Interference emission according to EN 61000-6-3.
 Installation category II. Pollution degree 2 EN 61010-1.

ENVIRONMENTAL

Working temperature - 10/+60°C
 Storage temperature - 40/+80°C
 Heat-up time 5 minutes
 Temperature coefficient 50 ppm/°C

PRECISION

Maximum global error 0.05%
 Thermal drift 0,5μA/°C 0,2mV/°C

OUTPUT

Average A+B/2 SUM of 2 signals
 Arithmetic A+B+C/3 SUM of 3 signals
 A - C A>B Output 4/20mA 0/10V
 A=B Output 12±8mA 0/±10V

Current 4/20mA, 0/20mA, 0/5mA, ...
 Maximum load capacity <700Ω
 Reverse polarity protected

Voltage 0/10V, -10/+10V, 0/5V
 Maximum load capacity ≥1K
 Short-circuit protected

Response time (10... 90%) 50ms
 Cut-off frequency 11Hz

DESCRIPTION

Arithmetic module that performs the addition (arithmetic mean) or subtraction of 2-3 analog signals (optionally 4) of 0-4/20 mA or 0/10 V process signals.

The addition/subtraction selection is easily performed using a switch.

It features 4/20 mA loop excitation.

Very useful in applications for averaging temperatures or obtaining differential pressure using pressure sensors.

It features a universal 24 V-230 V (20-250 VAC-DC) power supply with wide ranges.

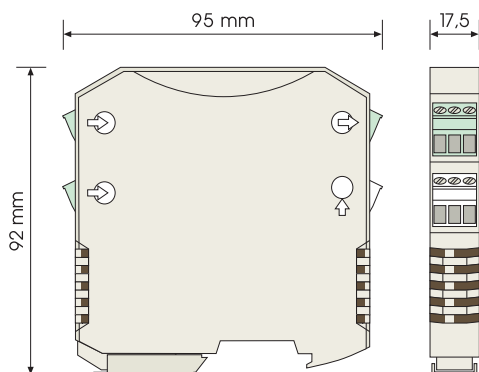
In the A+B+C ADDER configuration, it adds two or three 0-4/20mA or 0/10V analog input signals.

To obtain a standard 0-4/20mA or 0/10V output, divide the result by 2 or 3.

This operation is the same for SUM or AVERAGE. Either operation is defined by the user when scaling the full scale value in the output receiver. This is done by associating double the input (SUM) or the input value (AVERAGE).

In the A-C SUBTRACTOR configuration, it subtracts two analog input signals: 0-4/20mA or 0/10V.

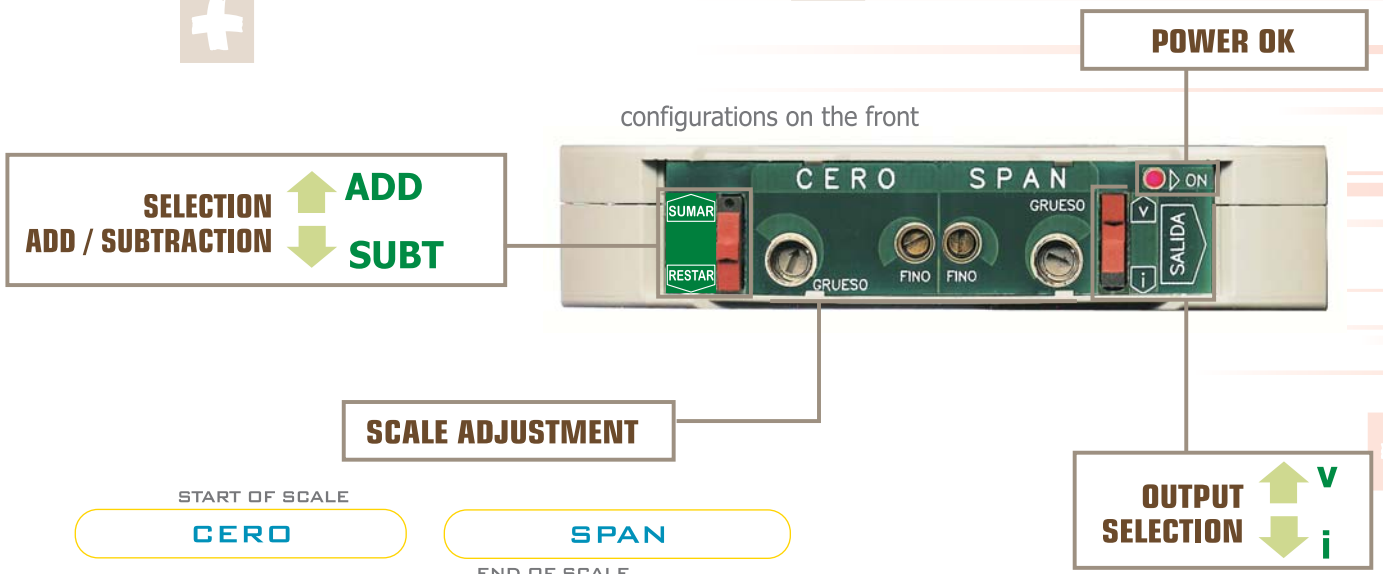
If the subtraction can be + and -, the scale start would be 12mA or 5V (0/±10V is also possible).



FORMAT

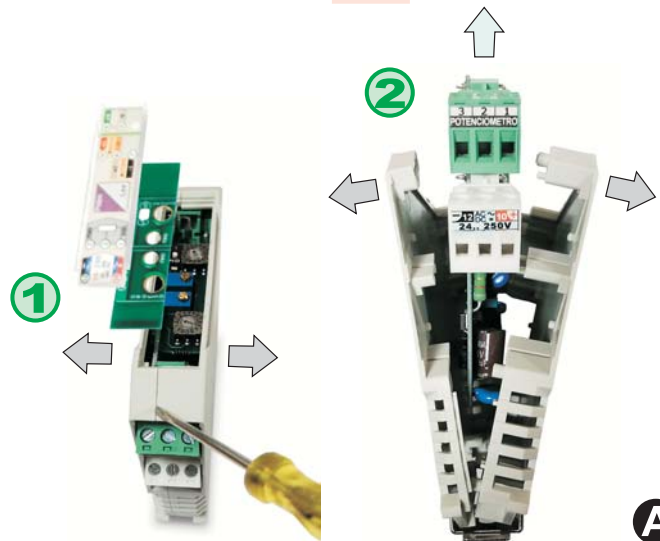
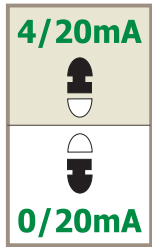
IP20 protection
 Flammability class V₀ according to UL94
 Ergonomic enclosure. Quick-mount via EN50022 rail
 Material: Polyamide PA6.6
 Connection: Plug-in screw terminals
 Protection against misalignment of encoder terminals
 Tightening torque for screws (M3): 0.5 Nm
 Connection cable: < 2,5mm², 12AWG 250V/12A
 Weight: 100 g

CONFIGURATIONS

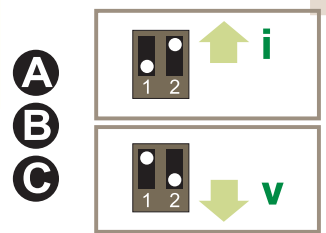


ZERO and SPAN adjustment is performed in two steps:
 1. COARSE adjustment
 2. FINE adjustment

OUTPUT SELECTION



settings inside access



INPUT SELECTION

* All must be selected in **V** or **i**.



CONFIGURATION for A-C INPUTS

SUBT.

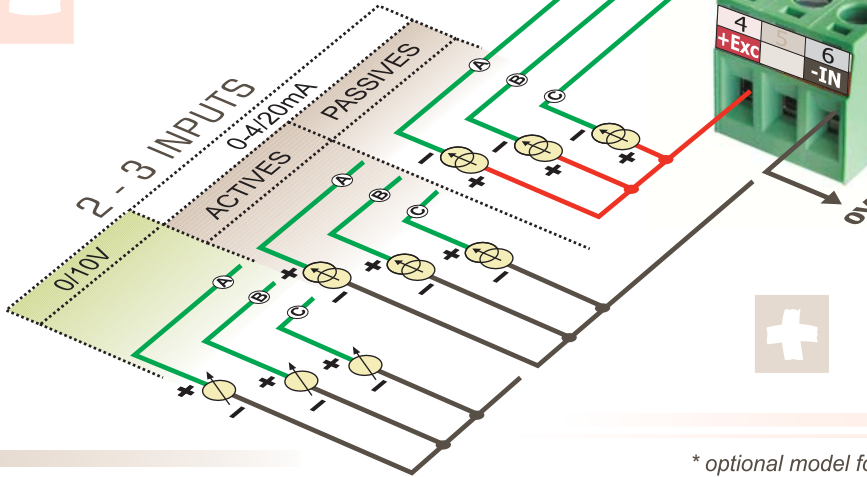
unused **B**

SUBTRACTION OF 2 INPUTS. 0-4/20mA or 0/10V

Leave the input unconnected **B**

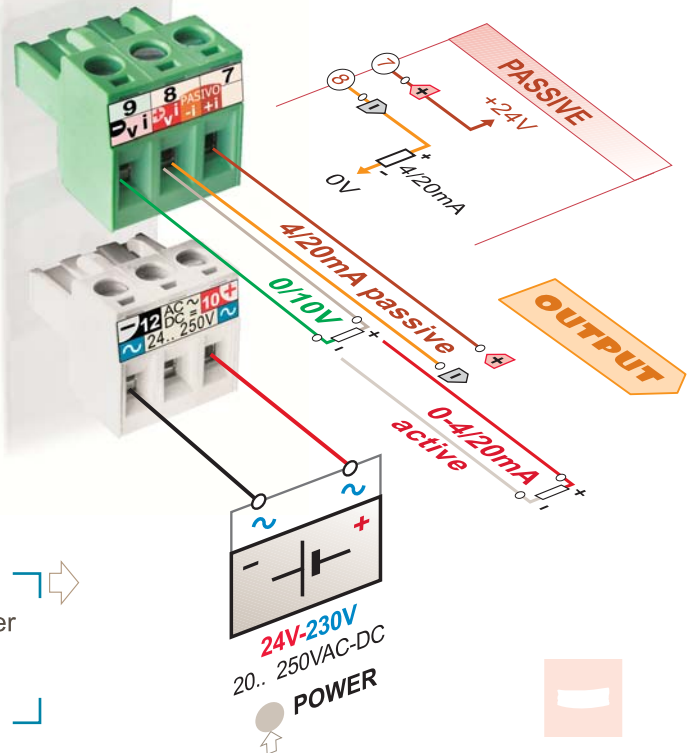
CONNECTED

Easily adjustable current (0-4/20mA) and voltage (0/10V) inputs, as well as intermediate ranges.



* optional model for 4 inputs

Easily adjustable current (0-4/20mA) and voltage (0/10V, 0±10V) outputs, as well as intermediate ranges.



POWER SUPPLY

24 Universal continuous and alternating power
 230 24/230VAC-DC 20.. 250VAC-DC