




**Newflow**

**NANO  
ACCESSORY**

**P542 (SCU) Signal  
Conditioning Unit  
Manual**





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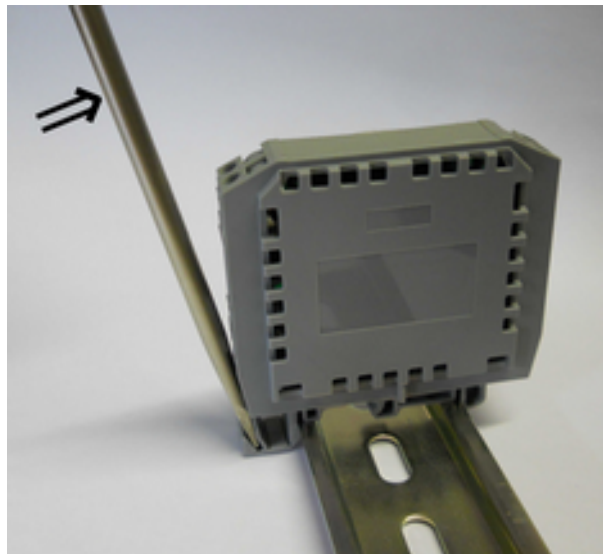
MMXIX

## 1 Mounting and removing

The P542 SCU is designed to be attached to 35mm symmetrical Top Hat rail to TS35/7.5 DIN, EN50022 or asymmetric G-type rail to EN50035.

To mount the device, put the fixed foot (shown on the right hand side in the photograph below) in to the rail and then press the movable foot down until it clicks on the rail.

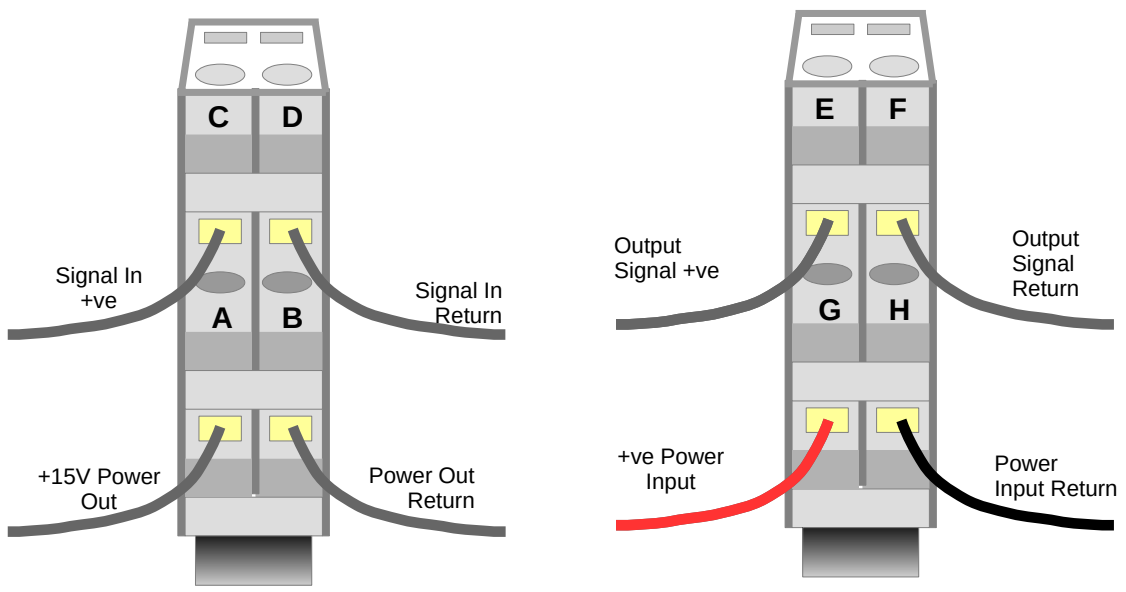
To remove, put the blade of a large flat -bladed screwdriver into the slot connected to the movable foot, as shown below, and push in the direction indicated by the arrow. This will move the movable foot outwards, and the unit can be removed easily from the rail.



## 2 Specifications

<b>Supply Voltage</b>	18 to 32 V DC at under 50 mA
<b>Dimensions</b>	2 1/2" (64mm) wide by 2 1/2" (64mm) tall
<b>MountingNeeds</b>	23/32" (18.3mm) length of top-hat DIN Rail to EN50022
<b>Input Sensitivity</b>	Approximately 20mV at 5Hz to 500Hz, rising to 100mV at 10KHz. With Jumper LK3 fitted, sensitivity reduced by 30 times
<b>Output Signal</b>	12V Push-Pull output, or open collector, up to 30V
<b>Output Power</b>	15V @ 50mA Auxiliary supply
<b>Visual Indication</b>	Blue power LED and a red signal LED

### 3 Wiring the Unit



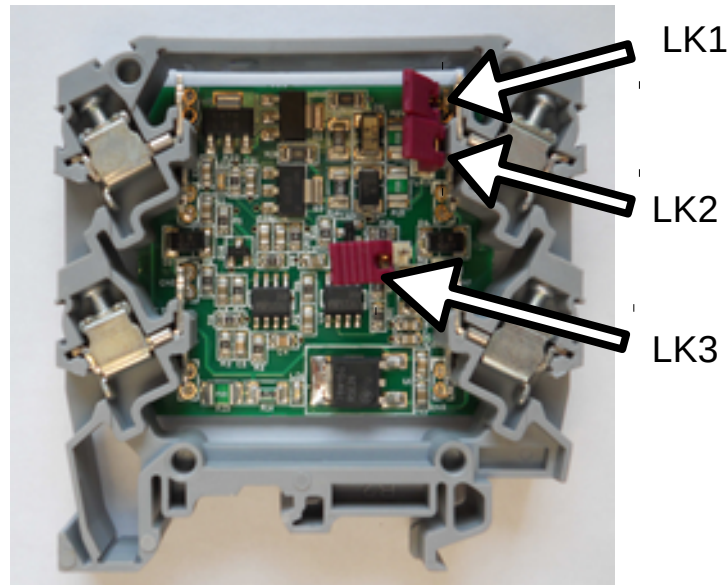
Pin Name	Pin Description	CIU Equivalent
A	+15V Power Out	J1 Pin 1
B	Power Out Return	J1 Pin 2
C	Signal In +ve	J1 Pin 4
D	Signal In Return	J1 Pin 3
E	Output Signal +ve	J2 Pin 4
F	Output Signal Return	J2 Pin 3
G	+ve Power Input (15V to 32V)	J2 Pin 1
H	Power Input Return	J2 Pin 2

## 4 Setting the Jumpers (Bit Links)

There are 3 jumper links in the P542 SCU.

In normal circumstances these should be left in the default position but for special installation situations, they may be changed after removing the front cover plate.

Jumper Links LK1 & LK2 determine the output type and LK3 switches the gain setting.



LK1	LK2	Description
Fitted	Fitted	Default position. The output is a strong, 12V nominal, push-pull output
Open	Fitted	Output has a weak pull-up and is driven Low (Open Collector, up to 30V)
Fitted	Open	Output has a weak pull down and is driven high (Open Emitter)
Open	Open	Invalid option, the output is disconnected

LK3 is normally open circuit, which is high gain mode. As shown in the photograph, the jumper is physically present, but is only connected to one pin, hence the circuit is open. Should the gain need to be reduced, due to noisy signals, the gain can be reduced by fitting the jumper fully, connecting to both pins of LK3.

## 5 Operation

A blue LED will show through the gaps in the cover when the power is applied. A red LED will light when the input signal is detected. At very low frequencies, the red LED will be seen to flash, but will appear to be on continuously at most normal flowing conditions.