Newflow

NÅNO ACCESSORY

P567 Raw Out Module User Manual

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Document Information

Document Identifier ROM_UM

Rev	Date	Changes	Prepared	Checked	Authorised
Draft	18/01/18	Original Draft	MOB		
R1	22/05/18	Reworked diagrams and hook-up connection table	MOB	DGS	MOB
R2	08 June 2018	Pin descriptions clarified	MOB	DGS	MOB
R3	21 April 2023	Several name changes and typo errors corrected	MOB	MPFJ	MOB

1 Purpose of the P567 Raw Out Module

When operated as a prover computer or when used in conjunction with a separate prover computer, the NÅNO is equipped with a Raw Pulse Bus to allow the turbine meter pulses (or manufactured pulses from, say, a Coriolis meter) to be moved between different machines, without software intervention. For optimum signal integrity and FCC compliance, the Raw Pulse Bus utilises differential signalling, as used for example by RS485 communications.

Although this is ideal for sending pulse trains between NÅNOs, it cannot be directly connected to systems using a single-ended arrangement.

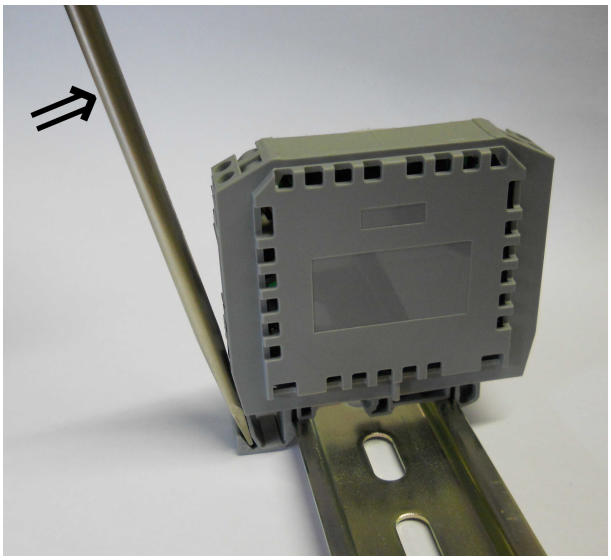
The P567 Module takes in the differential signals from the NÅNO Flow Computer Raw-Pulse bus, and converts it to a strong but protected 12V output push-pull output which should connect to any prover computer without needing signal conditioners or amplifiers. An optional robust open collector is also available by removing an internal jumper.

2 Mounting and removing

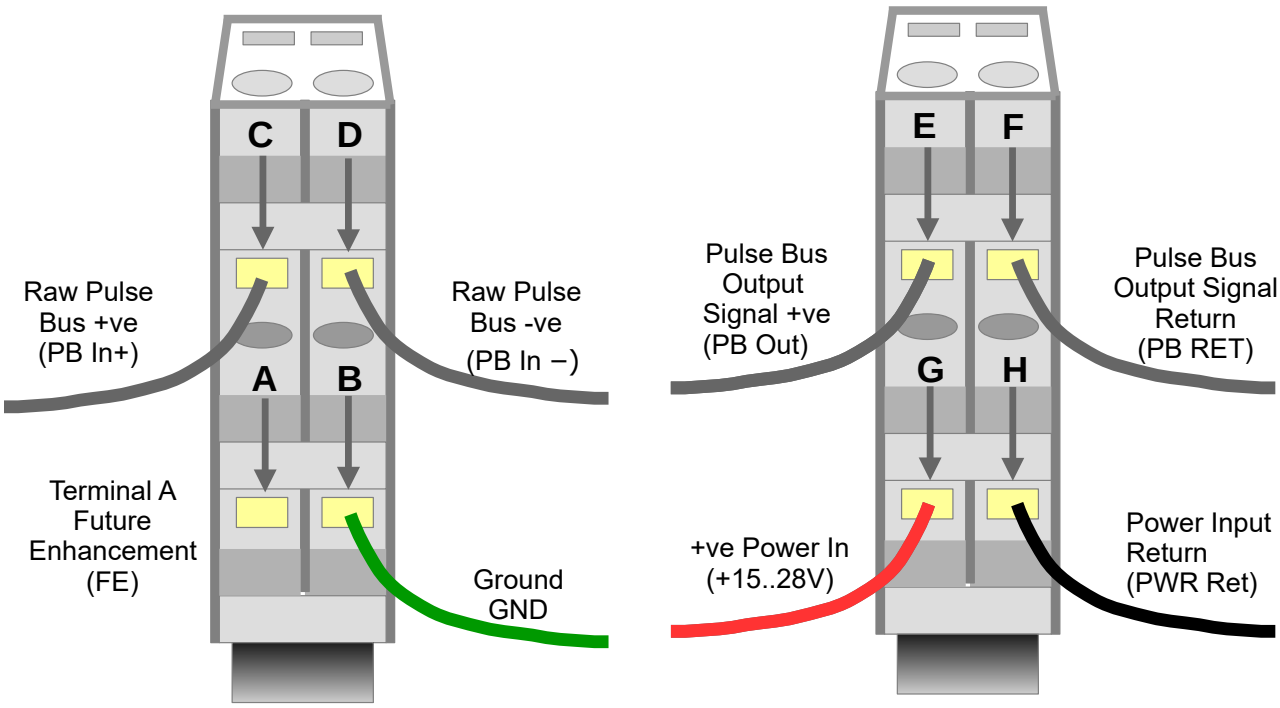
The P567 Raw Out Module is designed to be attached to 35mm symmetrical Top Hat rail to TS35/7.5 DIN, EN50022 or asymmetric G-type rail to EN50035.

To mount the device, put the fixed foot (shown on the right hand side in the photograph below) into 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.



3 Wiring the Unit and Link Settings



Pin Name	Pin Description	Label Name (Short Name)	Connection To
A	Reserved for **F**uture **E**nhancement	**F.E.**	Do Not Connect
B	**Ground**	**GND**	NÅNO PE
C	Raw **P**ulse **B**us **In+**	**PB In+**	NÅNO TB5-44
D	Raw **P**ulse **B**us **In−**	**PB In−**	NÅNO TB5-45
E	**P**ulse **B**us **Out**put Signal +ve	**PB Out**	Prover Pulse Input
F	**P**ulse **B**us Output Signal **Ret**urn	**PB RET**	Prover Signal Ground
G	+ve Power Input (**15** V to **28 V**)	**+15..28V**	Positive connection to Power supply
H	**P**ower Input **Ret**urn	**PWR Ret**	Power Supply 0V

3.1 Setting the Jumpers/Links

There is one jumper link (LK1) in the P567 Raw Out Module. This allows the unit to be either an open-collector output (link removed) or a Totem-pole (Active) output when the jumper link is fitted.

The link is fitted by default, giving an active totem-pole type output.

4 Operation

A blue LED will show through the gaps in the cover when the power is applied.

With the input not connected or driven low, a Green LED will also be visible. When the input is driven to a high level, a Red LED will light.

When driven with a very low frequency, the Green & Red LEDs may be seen to flash, but at a higher frequency (normal flowrate conditions), both LEDs will appear to be on continuously.

Input State	Output Level with LK1 fitted	Output Level with LK1 removed	LED Color Blue will always be on if module is powered
Disconnected	Output driven High	Open Collector is OFF	GREEN
Input driven Low	Output driven High	Open Collector is OFF	GREEN
Input driven High	Output driven Low	Open Collector is ON	RED

5 Specifications

DC Supply 15 V to 28 V DC at less than 50 mA

Input Level NÅNO Raw Pulse Bus or other RS485 signal compatible levels

Output (LK1 fitted) 12 V Totem Pole output

Output (LK1 removed) Open-Collector, 30V Maximum