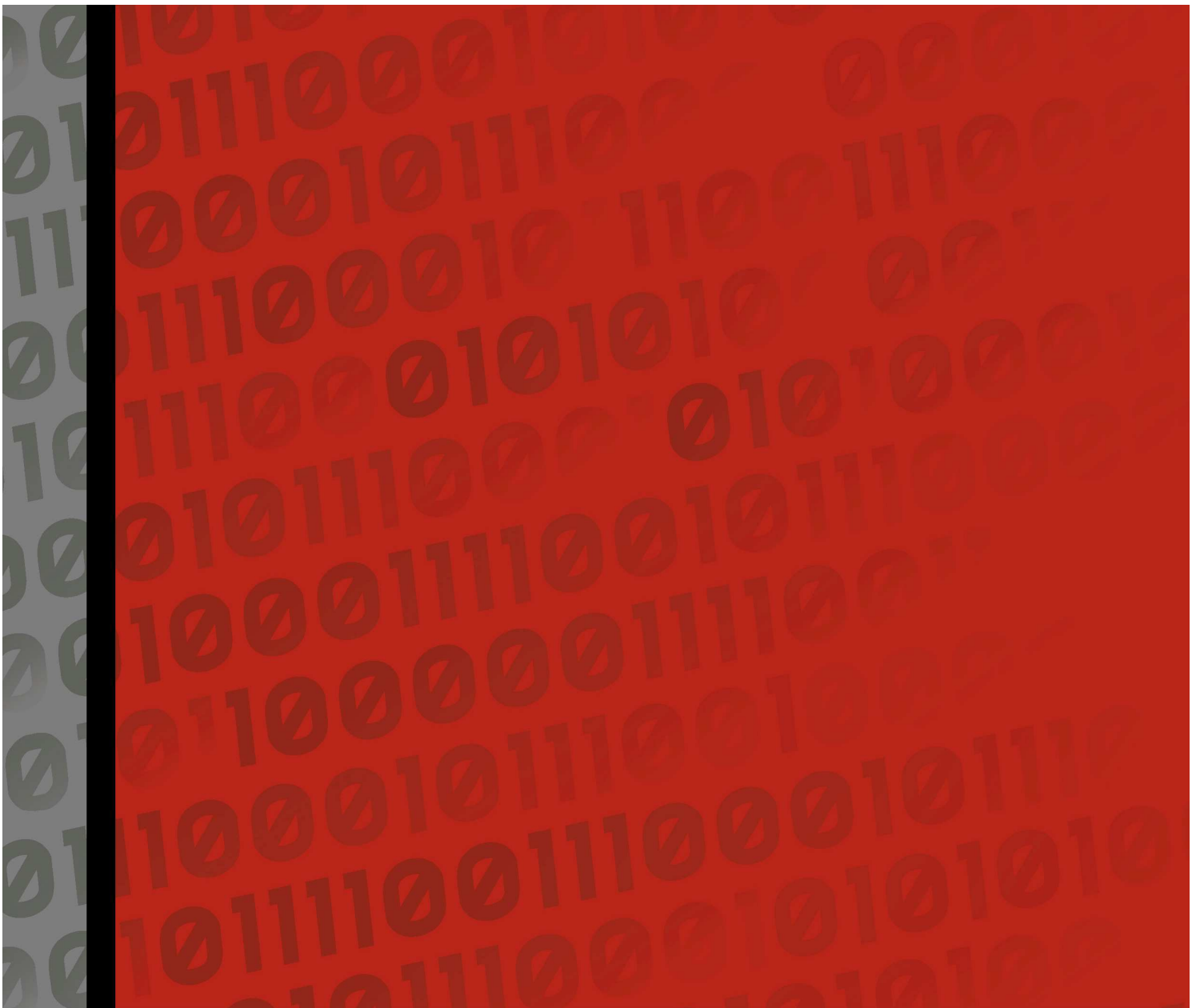




10 Port PPS pulse splitter

Product manual



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1. Introduction

The 10 port PPS splitter is designed to be installed in vessels and laboratories that have equipment that needs to be synchronised to a single PPS source. A PPS (pulse per second) is an electrical signal that is mostly outputted once a second by a GPS receiver or time source. This splitter can be used to offer this pulse to up to 10 devices. A frontpanel switch lets the operator choose from two inputs for fast system switchover to a backup system.

2. Features

- Input triggers on both 3.3V and 5V TTL levels
- Two front panel selectable inputs
- Multiple output signals
 - 5V pulse (can directly drive a 50 Ohm load)
 - RS232 level pulse
 - RS232 toggled output
- Both BNC and Sub-D style inputs and outputs
- Outputs can directly drive 50 Ohm loads
- Pulse stretching (the PPS pulse is stretched to a minimal length of 25 ms)
- 10 – 30 VDC power supply
- 19 inch 1U rack mount casing
- Presence of PPS pulse LED indication

3. Layout



4. Operation

One of the two inputs is selected by the front panel switch. The selected input is then stretched to a minimum length of 25 ms. This stretched signal is distributed to 10 output modules. Every output module has its own output drivers on RS232 level and 5V level.

The input triggers on the rising edge. The main 5V output follows this rising edge. The RS232 output follows the standard levels. At rest it outputs -12V and during the pulse +12V. The RS232 toggled output changes from one status to the other triggered by a rising flank on the input. It will maintain its output status until the next rising flank presents itself. So if the PPS pulse is set at an 1 second interval, this output will change status every second.

The 5V output pulse is present on both the BNC output and the Sub-D output. Only use one of the two outputs per port at the same time. Also do not connect to both the BNC and sub-D inputs of the same port at the same time.

A stable 10 Watt power supply should be provided.

5. Pinouts

BNC female input & output	
Center	PPS pulse
Outer	GND

Sub-D 9P male input	
Pin 1	PPS pulse
Pin 5	GND

Sub-D 9P female output

Pin 1	PPS pulse
Pin 5	GND
Pin 6	RS232 level pulse
Pin 8	RS232 level toggled output

3P male DIN power connector

Pin 2	V+ (10-30 VDC)
Pin 3	GND