

EXTIO Signaling

7.5 Tagsurance HF version 3.x

Tagsurance HF version 3.x has DA-15 female connector where EXTIO signals can be connected. The connector pinout and electrical connection interfaces are described below.

Pin	Function	Pin	Function
1	N.C.	9	RFU
2	RFU	10	RFU
3	GND	11	+5 VDC ¹
4	GND	12	Logic 0-level reference
5	TRIG -	13	Logic 1-level reference
6	TRIG +	14	RFU
7	Busy/Ready	15	RFU
8	Pass/Fail	Shield	GND

1) The maximum output current is 20 mA

The high and low levels of the output pins 7 and 8 are set by the pins 12 and 13. The voltage level of pin 13 must be higher than the voltage of pin 12.

The trigger signal is a 5-24 V differential signal between pins 5 and 6. If a unipolar signal is preferred, pin 5 can be grounded to either pin 3 or pin 4.

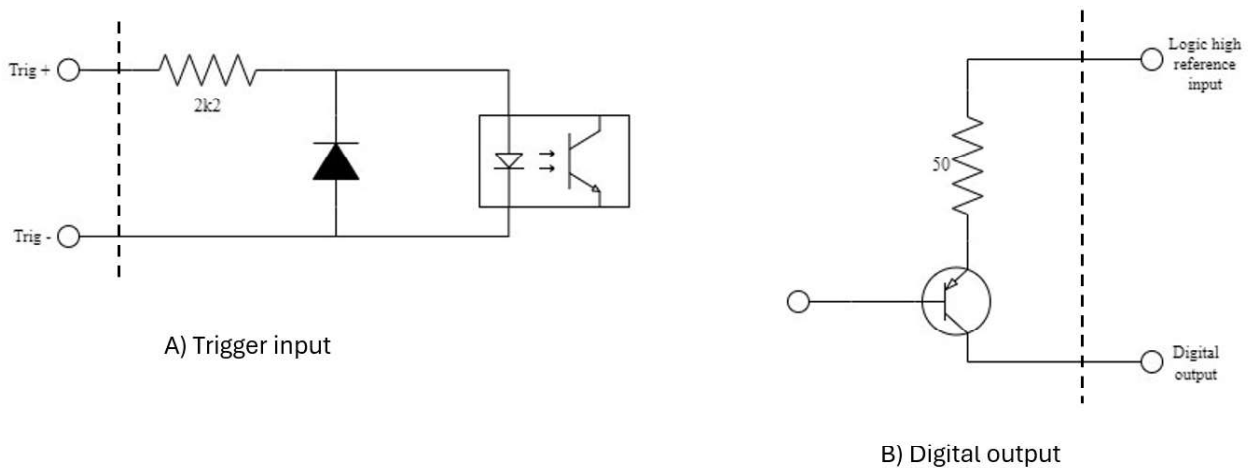


Figure 27: EXTIO signal electrical connection interfaces in Tagsurance HF version 3. x

7.6 Tagsurance HF version 1.x & 2.x



Figure 28: DB25 EXTIO connector that can be used to connect signals to the Tagsurance HF EXTIO port

Pin	Function	Pin	Function
1	Power input (18-24VDC)	14	+5V out
2	Power input (18-24VDC)	15	Logic high reference input
3	Power GND	16	Trigger threshold level
4	Power GND	17	Trigger input
5	Ext Power enable (active low)	18	Busy/ready output
6	Digital output (RFU)	19	Pass/fail output
7	Digital output (RFU)	20	Digital output (RFU)
8	Digital output (RFU)	21	Digital output (RFU)
9	Digital output (RFU)	22	Digital output (RFU)
10	Digital input (RFU)	23	Digital output (RFU)
11	Signal ground	24	Digital input (RFU)
12	Analog input positive (RFU)	25	Digital input (RFU)
13	Analog input negative (RFU)	Shield	GND

Pins 1-5 are related to application of external power source. It can be connected to pins 1-4. Pin 5 is external power enable pin and needs to be grounded when external power source is applied.

Pins 6-10 are 3V3 compatible logic pins (reserved for future use).

Pin 11 is signal ground.

Pins 12-13 are differential analog input pins relative to signal ground at Pin 11 (Reserved for future use).

Pin 14 is an isolated +5Vdc, 100mA voltage output.

Pin 15 is logic high level input pin relative to pin 11. It sets the high voltage level at output pins 18-23. When these pins are used, pin 11 should be connected to ground and DC level at pin 15 must be 0V or higher.

Pin 17 is unipolar trigger input and compatible with voltages from 3,3V up to 24V. Minimum trigger pulse length is 5µs.

Pin 16 is trigger threshold adjustment pin. Default trigger threshold level is at 38% (pin 16 is floating). It can be adjusted by adding a pull-up resistor to +5V output (increases threshold), or pull-down resistor to signal ground (lowers threshold level). For details, please see Figure 29.

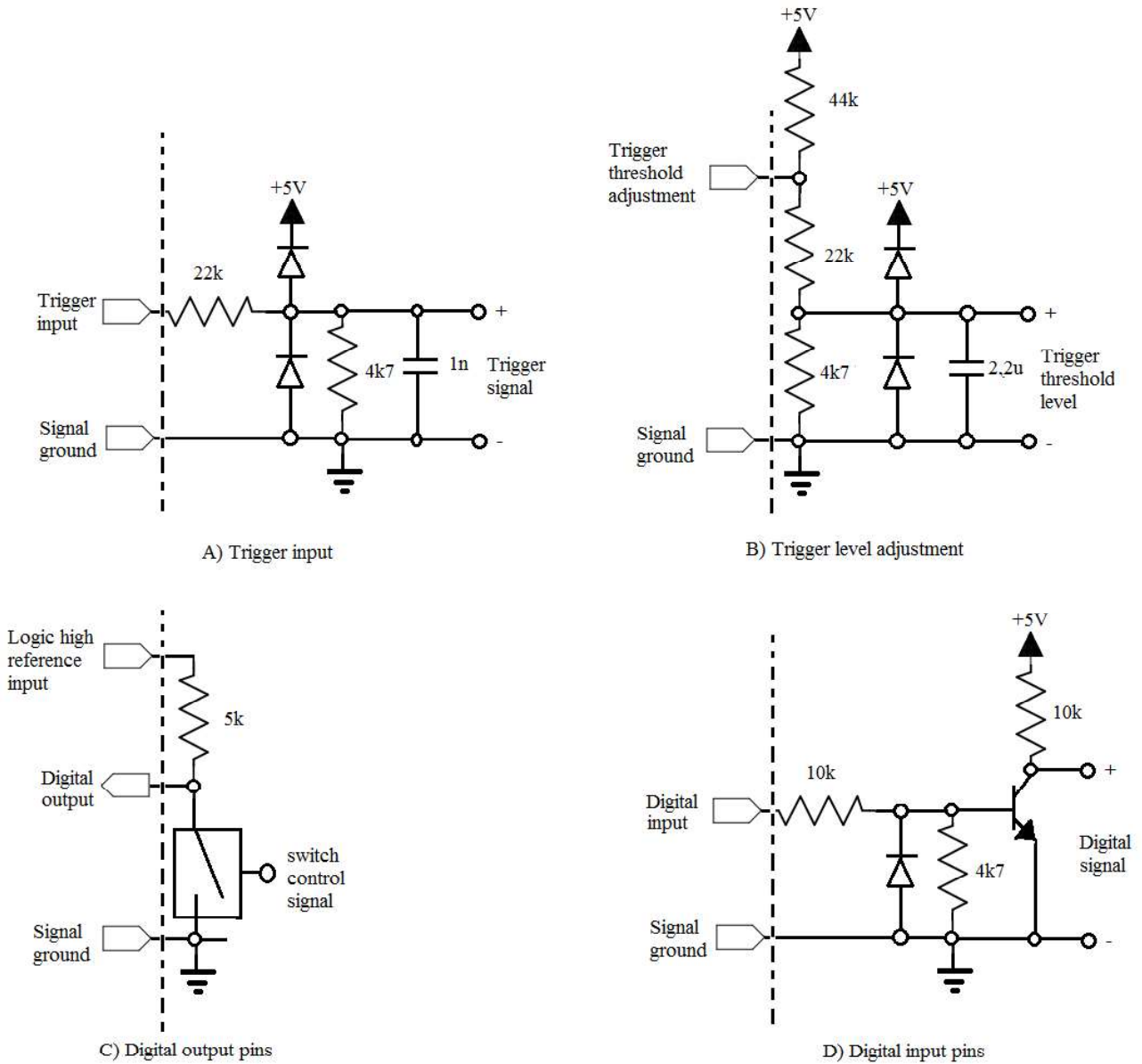


Figure 29: EXTIO signal electrical connection interfaces in Tagsurance HF version 2.x