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SM301-EX External Trigger **Manual**

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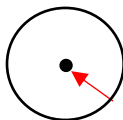
External-EX Trigger Mode

SM301-EX supports External Trigger Mode and can operate in synchronization with external events. In External Trigger Mode, connect an external trigger device to the rear panel of the spectrometer and send a TTL signal to the spectrometer to begin the measurement. External Trigger Input Connector uses Mini SMB type. You can purchase Mini SMB cable separately.

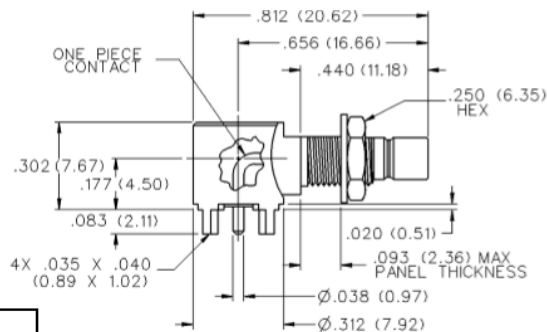
1. SM301-EX Backside Panel



Figure 1. SM301-EX Backside Panel



Connector Part Number: J719-ND
Type: Mini SMB
External Trigger Input



GOLD PLATED	NICKEL PLATED	"A"
131-3701-501	131-3701-506	.083 (2.11)

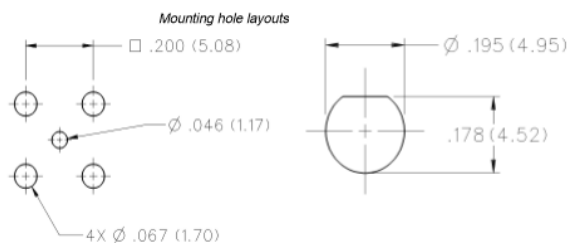


Figure 2. External Trigger Input Connector Drawing

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2. Trigger Input TTL Signal

Input signal recognition mode of External Trigger mode is Falling Edge and Rising Edge mode.

Falling Edge mode is when the TTL signal changes from High (5V) → Low (0V).

Rising Edge mode recognizes when the TTL signal changes from Low (0V) → High (5V).

A. Falling Edge



Figure 3. Falling Edge TTL Input

B. Rising Edge

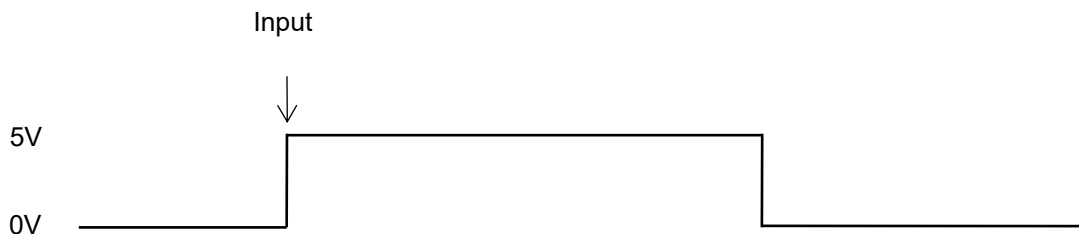


Figure 4. Rising Edge TTL Input

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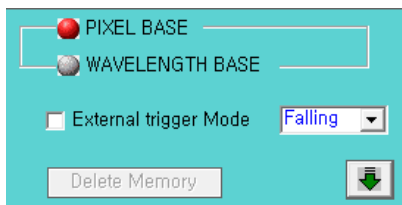
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3. Software Settings API Functions

A. SM32ProForSM301R6



You can set External Trigger Mode with this button.



After checking and setting the external trigger mode, the SM301-EX will wait until the trigger is inputted. To set internal trigger mode again, uncheck the box.

B. External Trigger Mode Related API Functions

`spSetExtTrgMode()` : Enables or disables External Trigger mode

`spConfigTrigger()` : Trigger Input Detection Mode setting

`spConfigTriggerDelay()` : TTL signal input time out setting

See the example SDK code and SDK for SM301-EX Manual for details on using the function.