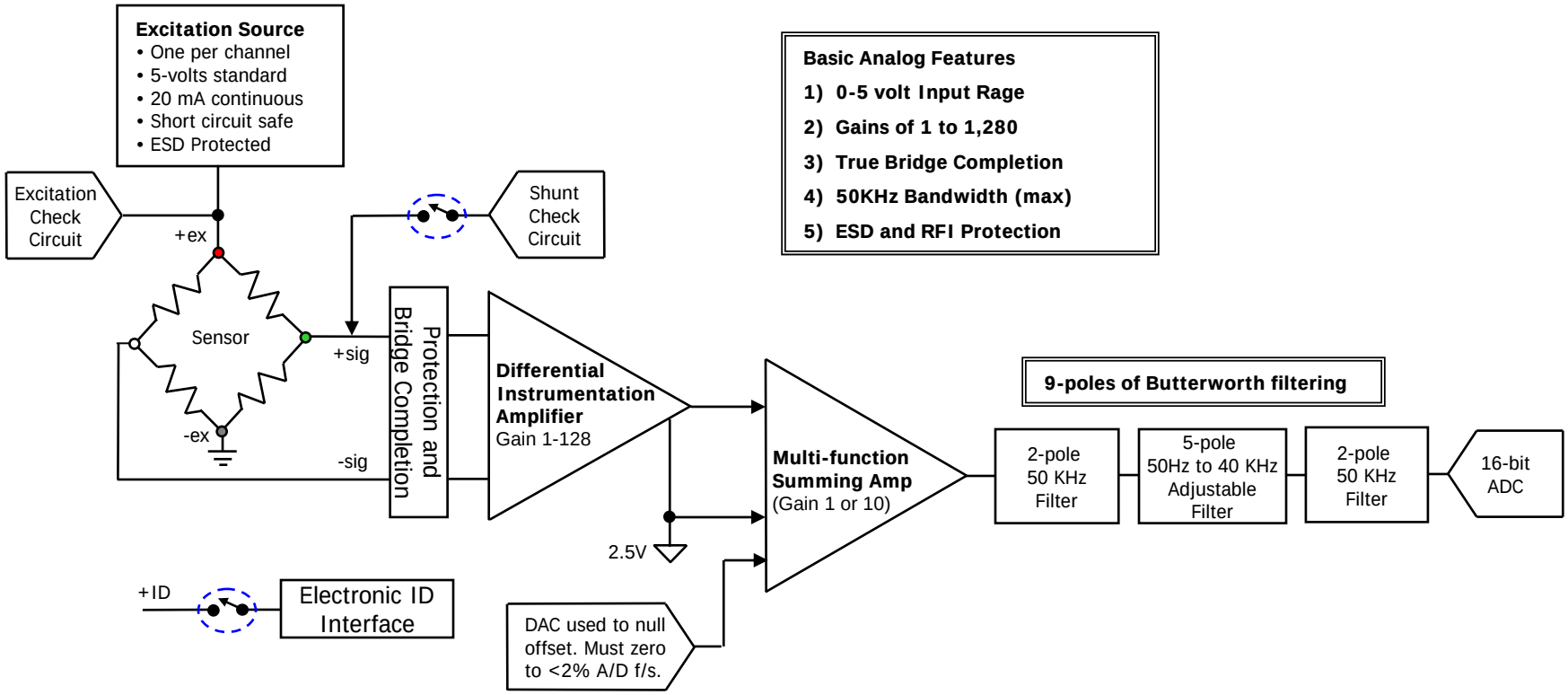
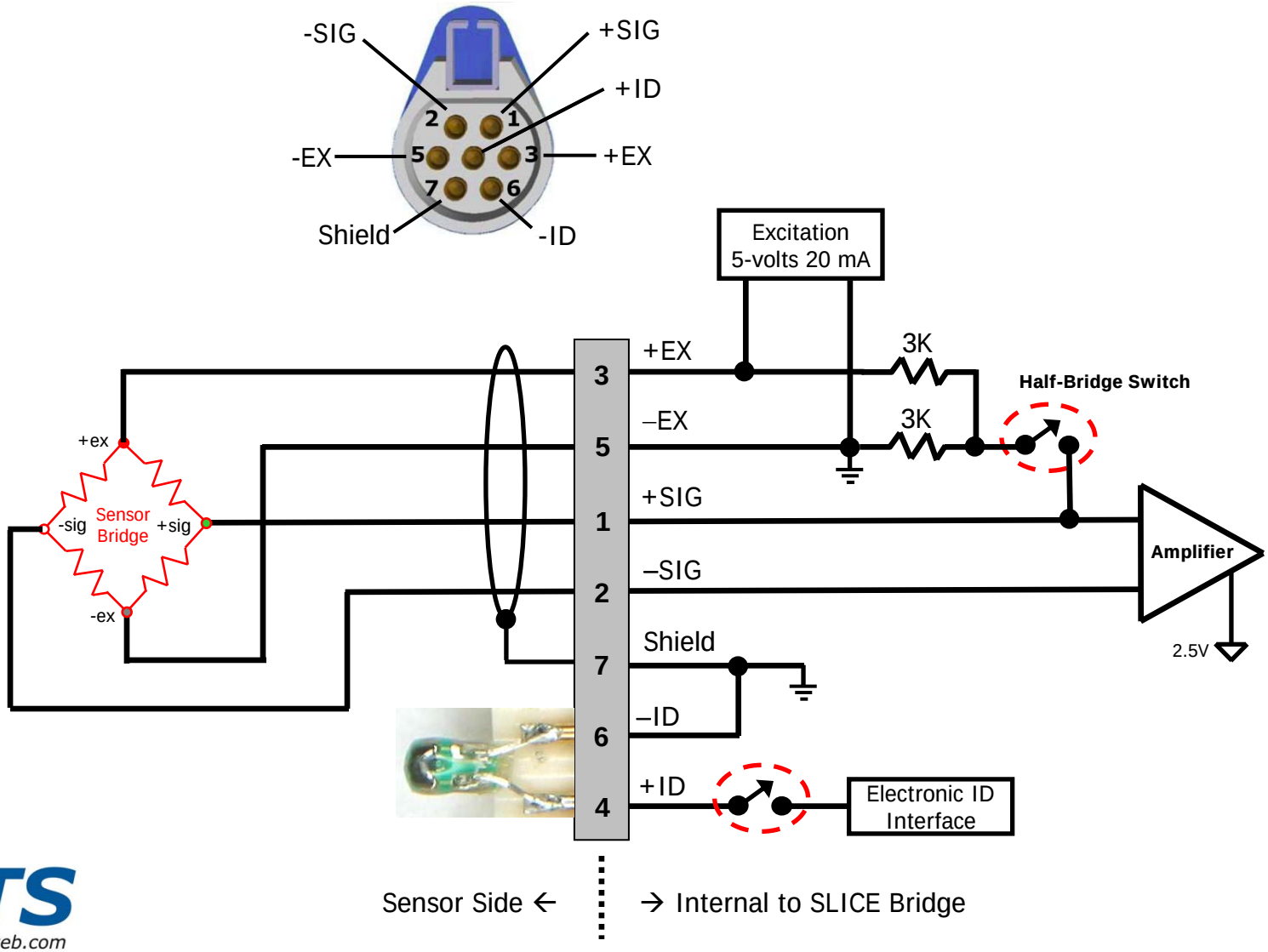
APPENDIX F
SLICE Bridge Sensor Connections

SLICE Bridge – Sensor Interface



Standard 4-wire Bridge Connection



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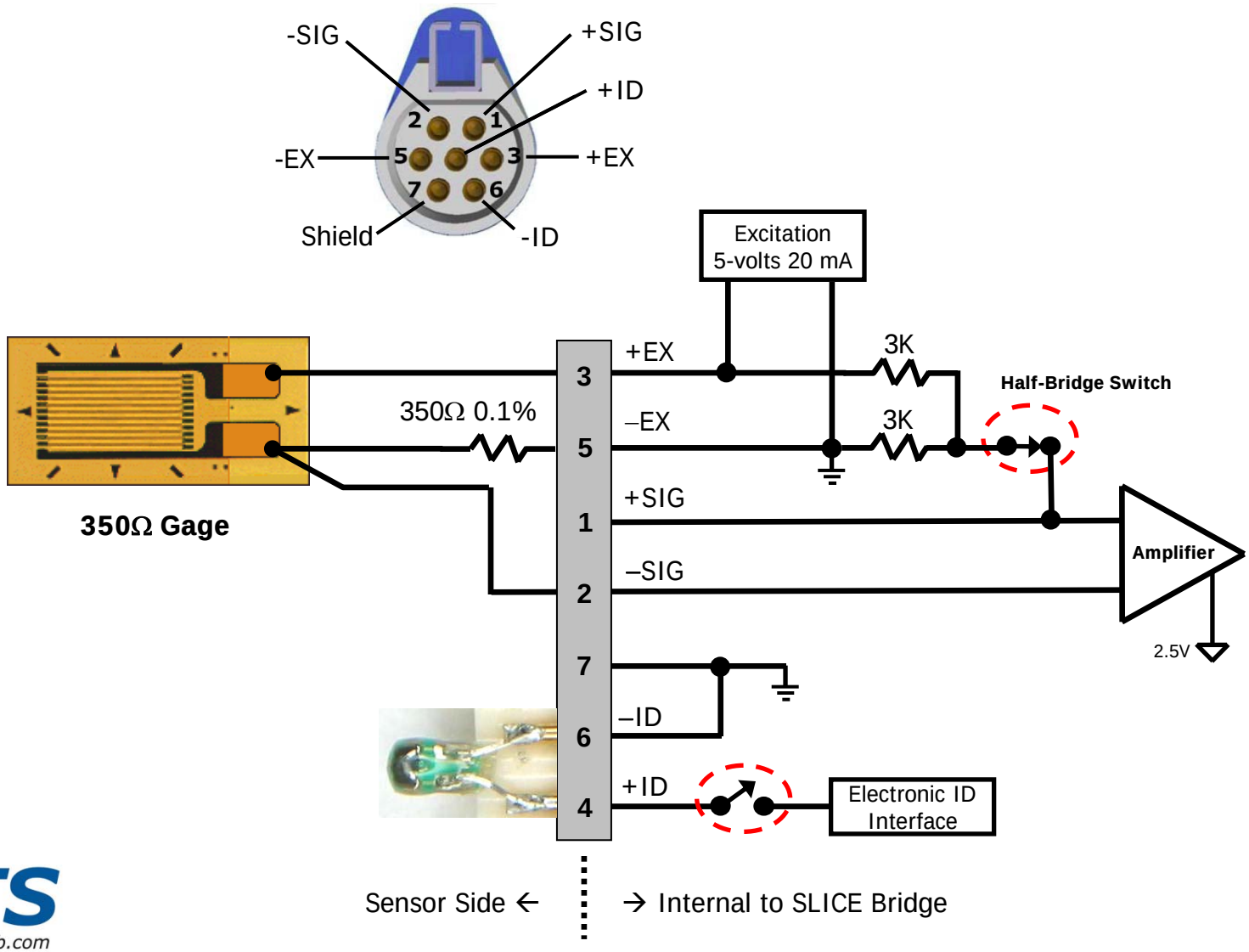
Strain Gage 3-wire Connection



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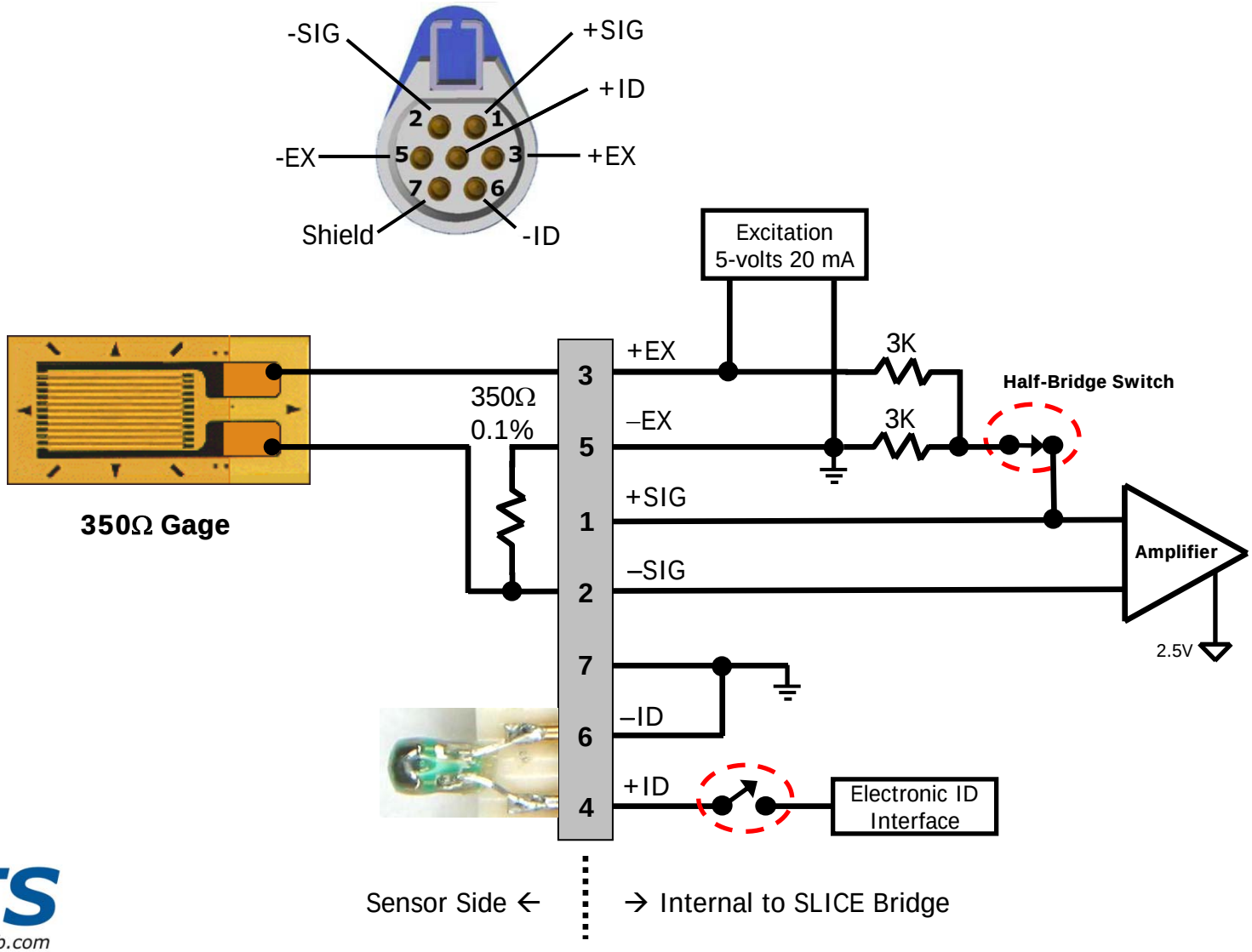
Strain Gage 2-wire Connection



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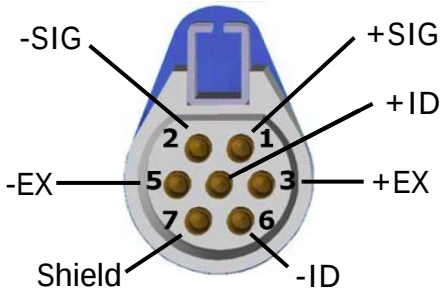
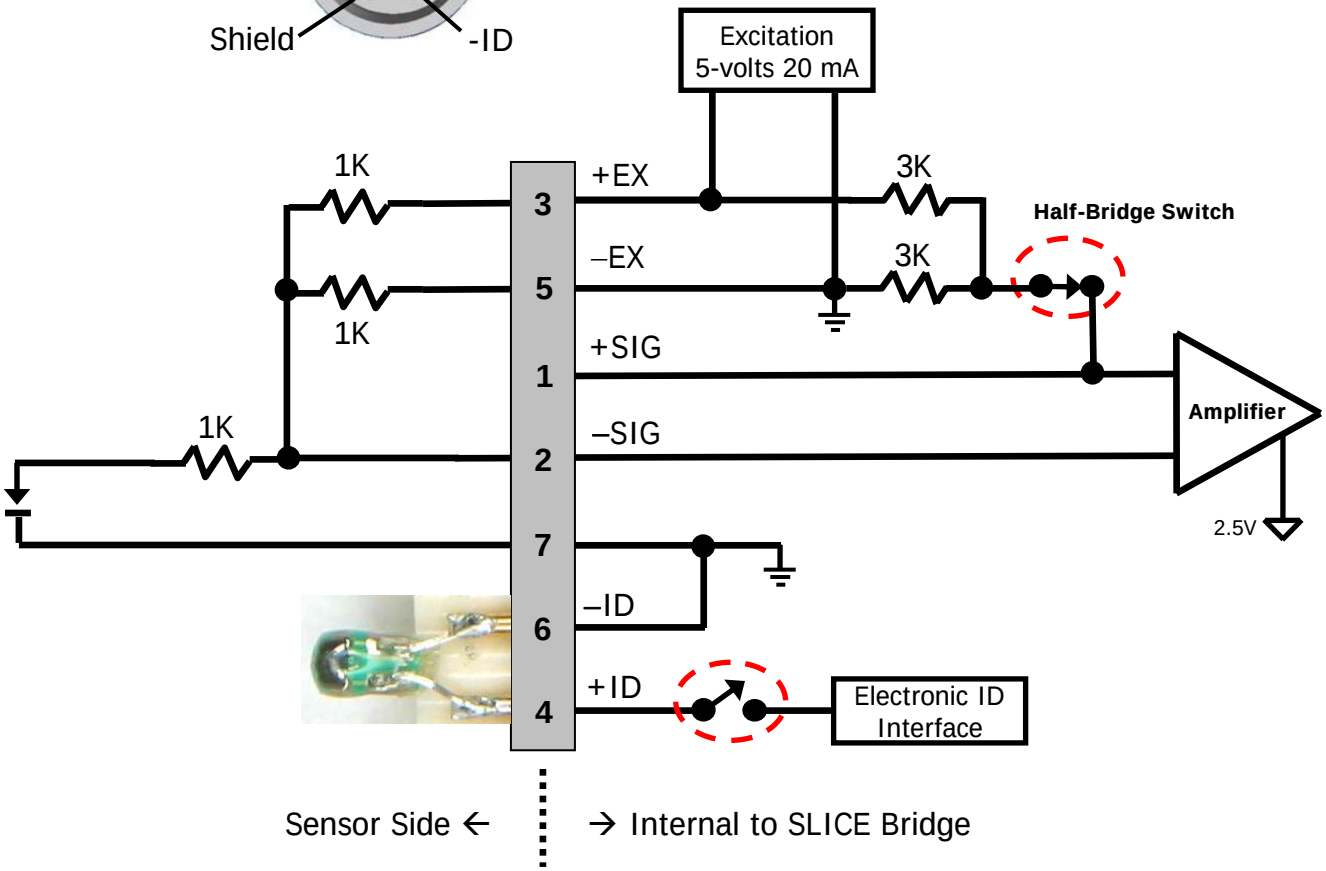
Switch Closure

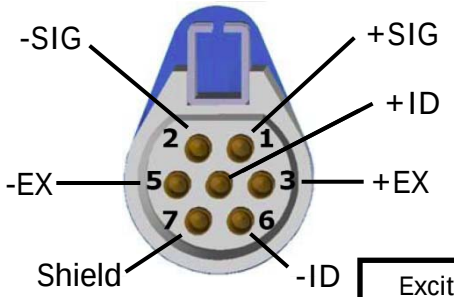


Example Sensor Settings
- Half-Bridge Mode
- Proportional to Excitation = No
- Sensitivity = 1.000 mV/EU will scale data in mV at input. Switch closure as shown gives 833 mV deflection.

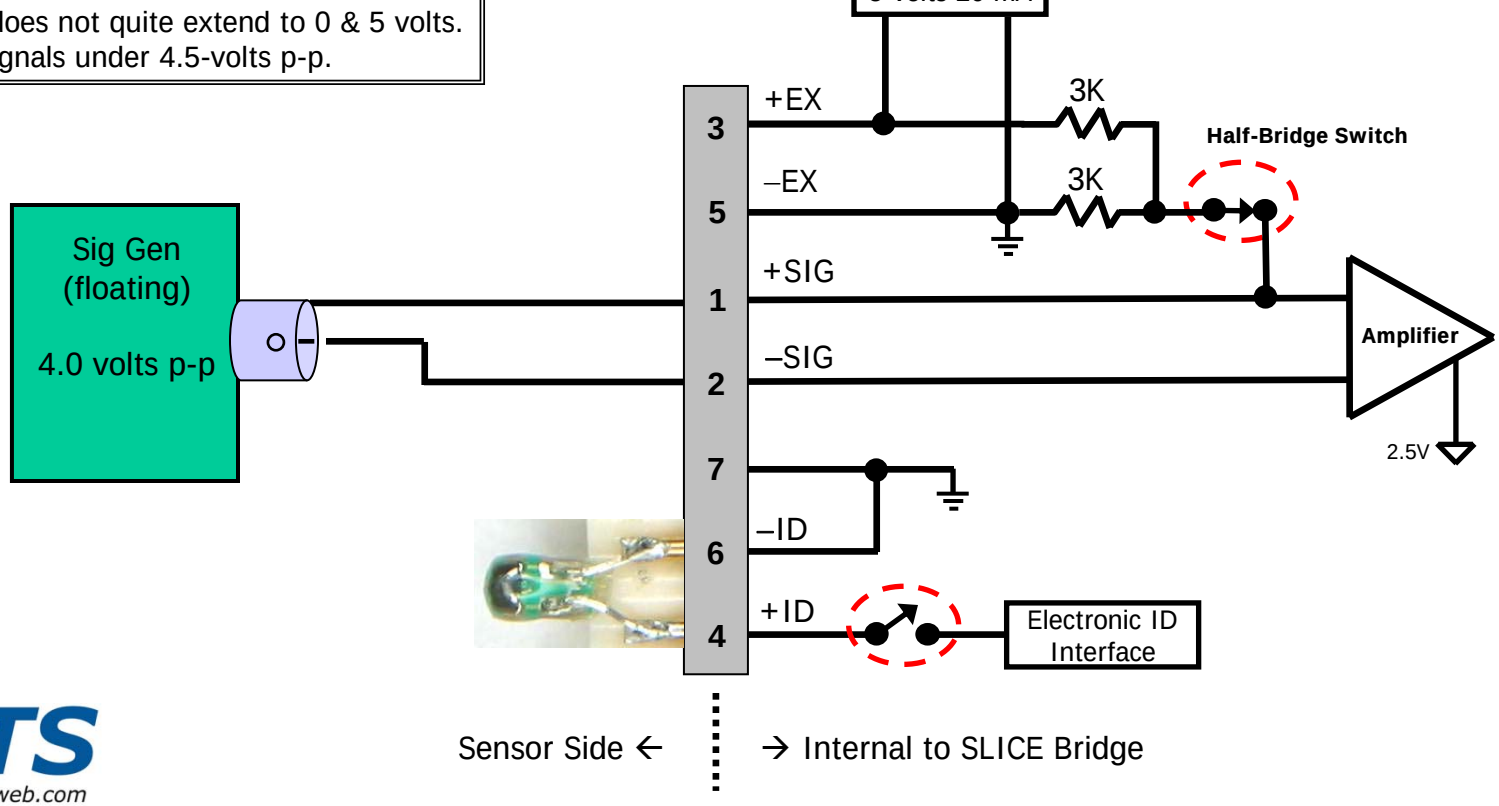


Signal Generator w/floating output

Notes:
- SLICE input range is 0-5 volts WRT SLICE power ground and –Excitation.
- Both sides of input amplifier must be connected either externally or +Signal via ½ bridge mode.
- Signal generator must float WRT ground or alternate connection method must be used.
- Input range does not quite extend to 0 & 5 volts. Best to use signals under 4.5-volts p-p.



Sample Sensor Settings
- Desired Range = 2000
- Sensitivity = 1.000 mV/EU
- Units = mV
- Sensor Type = Half-Bridge
- Proportional to Excitation = No
- Zero Type = None
- Remove Offset = No



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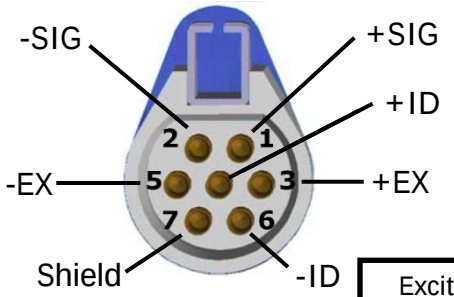
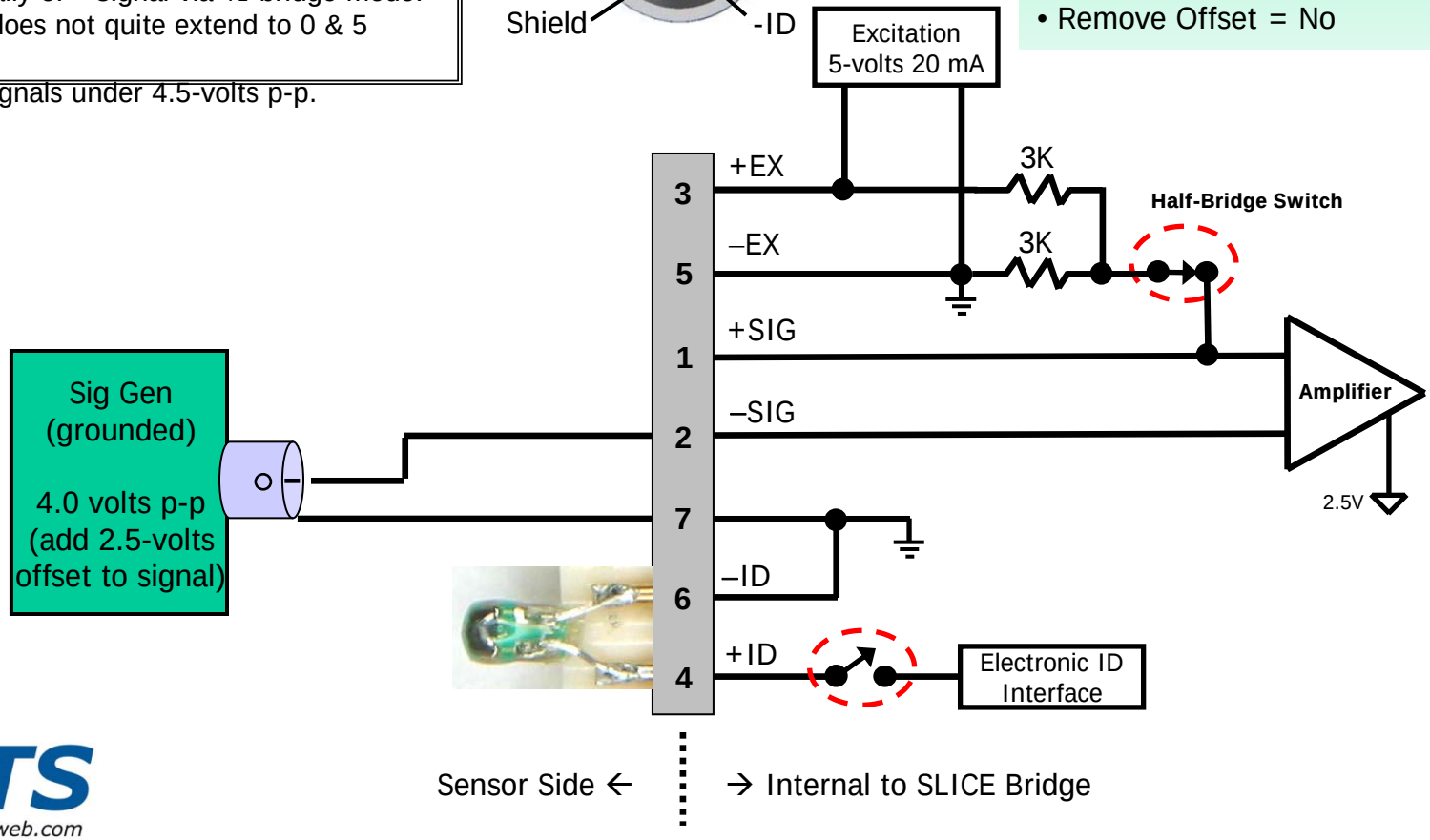
Signal Generator w/grounded output

Notes:
- SLICE input range is 0-5 volts WRT SLICE power ground and –Excitation.
- Both sides of input amplifier must be connected either externally or +Signal via ½ bridge mode.
- Input range does not quite extend to 0 & 5 volts.
  Best to use signals under 4.5-volts p-p.



Sample Sensor Settings
- Desired Range = 2000
- Sensitivity = 1.000 mV/EU
- Units = mV
- Sensor Type = Half-Bridge
- Proportional to Excitation = No
- Zero Type = None
- Remove Offset = No



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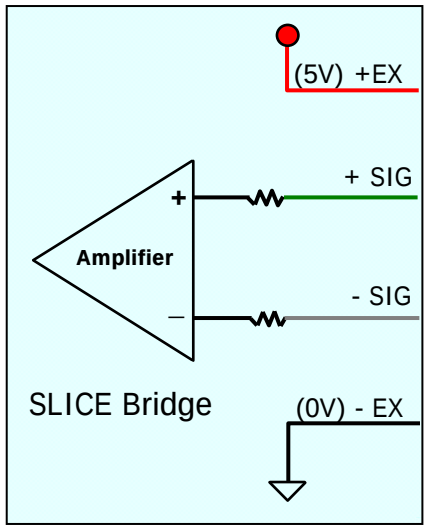
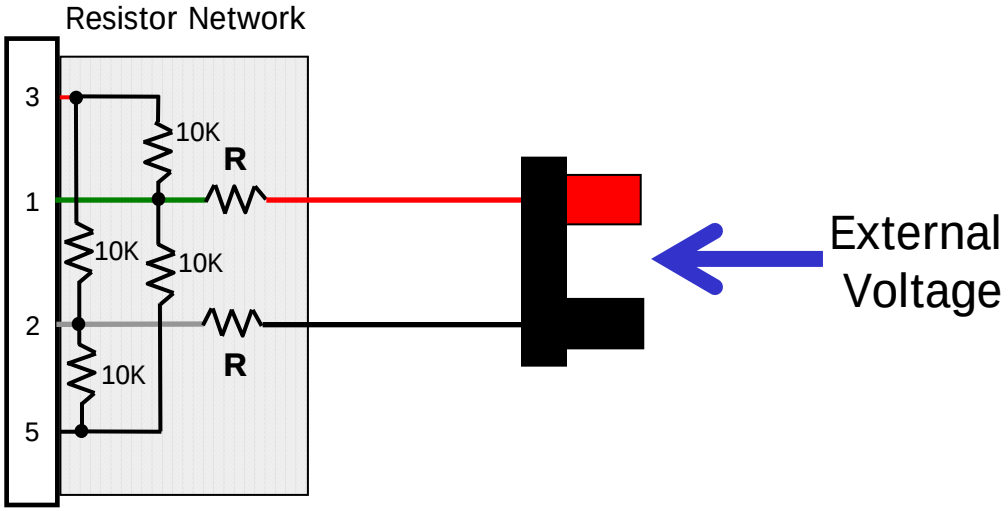
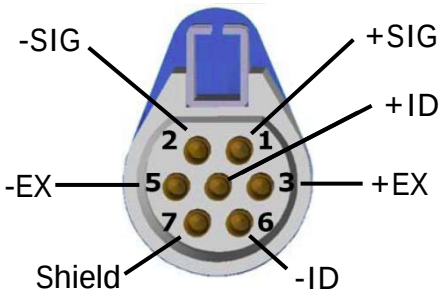
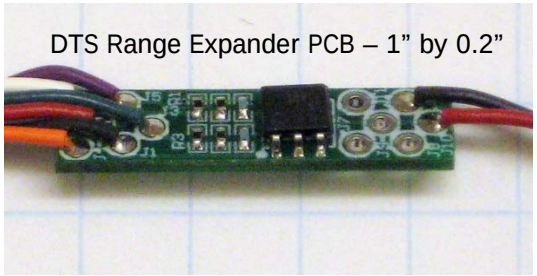
Measuring Large Differential Voltages









Approx MAX External Voltage **Vmax**	Resistance **R**	* Sensitivity mV/V
+/-20V	49.9K	91.07
+/-40V	95.3K	49.85
+/-60V	150K	32.26

* Sensitivity calculation….

$$\left(\frac{5}{(5 + R)}\right) \text{ X } 1000$$

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