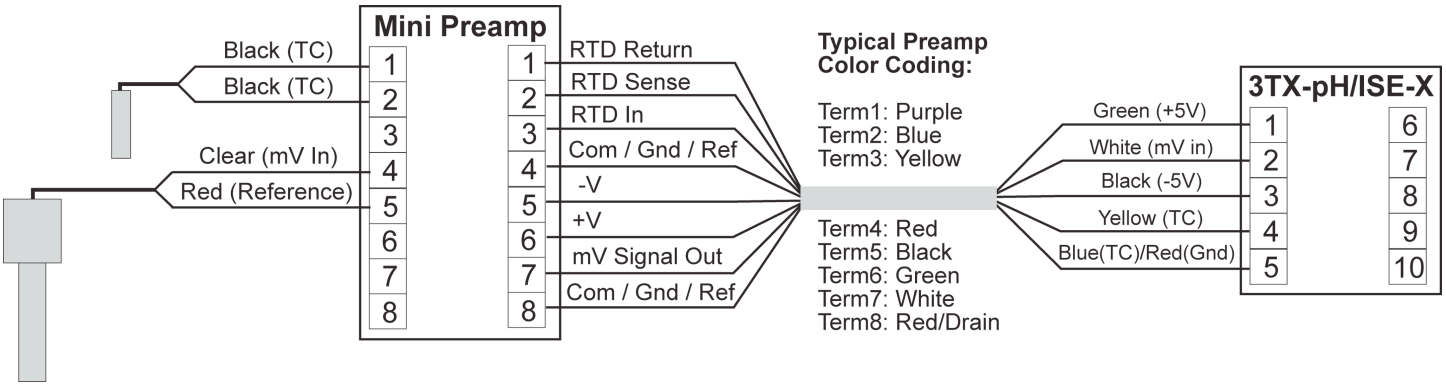
# Connection Diagram of ASTI Sensors WITHOUT PREAMPLFIERS (Input) to External "Mini" Conventional Preamplfier (Output) to ASTI 3TX-pH-X and 3TX-ISE-X Preamp Style Transmitters

**Input from ASTI pH / ORP / ISE Sensors Without Preamp**
***(Inside J-Box Connections)***

**Output from ASTI "Mini" Conventional External Preamplfier**
***(Inside Transmitter Assembly Connections)***




**Connection from ASTI "Mini" External Conventional Preamplifier Output (Schematic on Left) to Input Terminal Block on ASTI 3TX Transmitter (Schematic on Right)**

Note 1:
The temperature compensation element input shown on the far left as the input side to the "Mini" external preamp terminal 1 & 2 can be 100 or 1000 Ohm Platinum (selectable in 3TX-pH-X or 3TX-ISE-X transmitter).

Note 2:
When using the "Mini" external conventional preamplifier with the 3TX-pH-X and 3TX-ISE-X it is not necessary to interface with the output side terminal 1 (RTD Return). This is not required because the 3TX transmitters do not support 3-wire TC inputs. As such the blue terminal 2 and yellow terminal 3 output connections provide the 2-wire Pt100 or Pt1000 TC inputs.

Note 3:
When using the "Mini" external conventional preamplifier with the 3TX-pH-X and 3TX-ISE-X it is not necessary to interface with the output side terminal 8 (duplicate common/ground/reference). This is because the 3TX transmitters do not require two common input leads (as some transmitter do) but rather just a single common/ground/reference connection from terminal 4 (red color coded lead).

Note 4:
This "Mini" external conventional preamplifier can interface quite a number of additional transmitters besides the 3TX-pH-X and 3TX-ISE-X units. Please inquire to ASTI factory for wiring schematics to other transmitter types.

Note 5:
It is possible to power this "Mini" external preamplifier from a two-sided battery pack power source if it is to be mated with a pH/ORP transmitter that does not support preamplifiers. Inquire to ASTI factory this type of alternate wiring schematic.