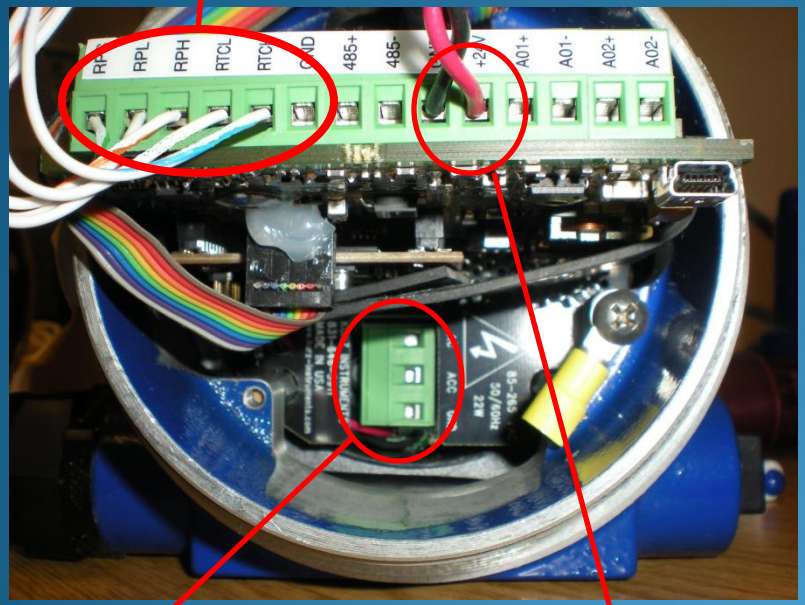
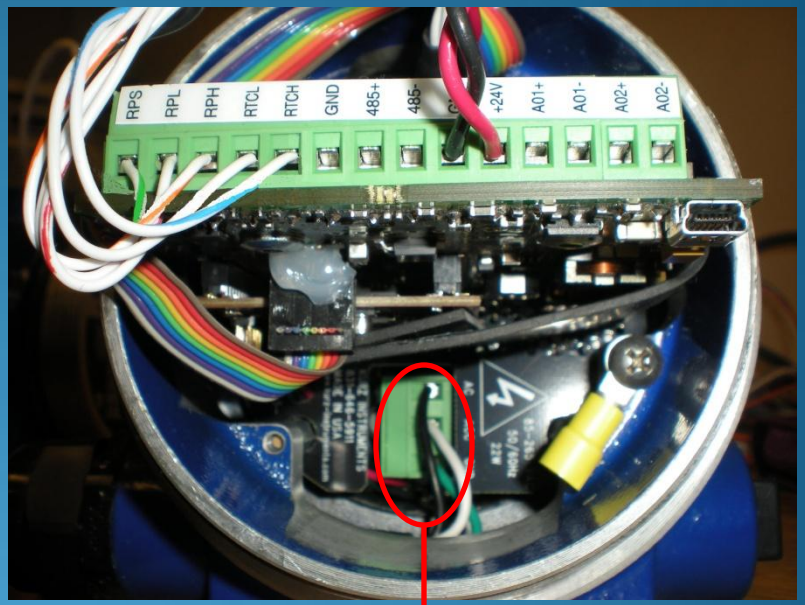
FIELD WIRING TERMINATIONS

Power Inputs and 4-20mA Outputs (for 454FTB, 504FTB, or 534FTB)

AC Powered Meter

Sensor wires installed at Kurz factory





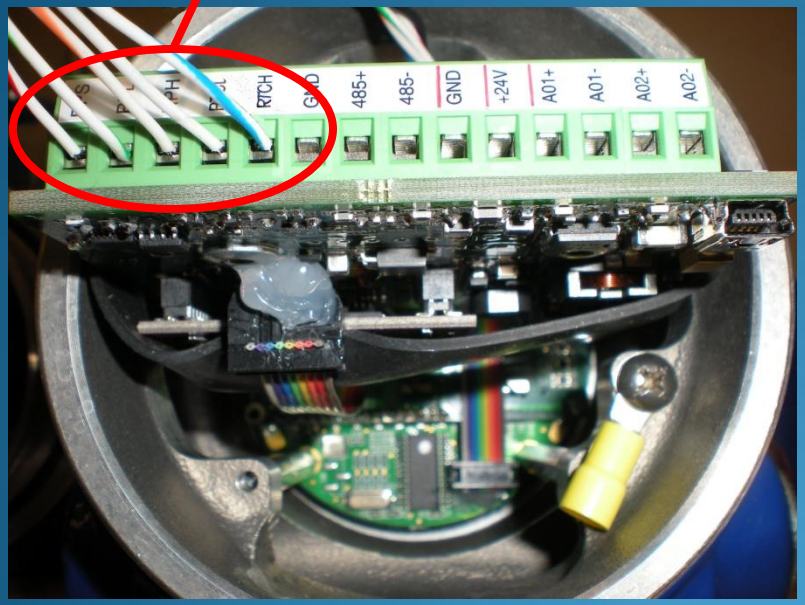
Terminal strip for customer's AC power input

For AC powered meters 24VDC input is pre-wired at Kurz factory

AC power field wiring installed 85-265 VAC, 50-60 Hz, 22W

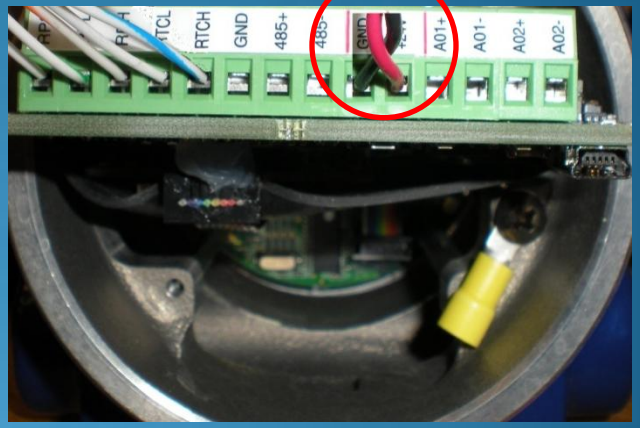
DC Powered Meter

Sensor wires installed at Kurz factory



DC Power field wiring
24VDC, 21 W (18 VDC min.)

Terminates at +24V / GND on terminal strip



This option has no built-in power supply
Customer provides 24VDC power to the meter

I/O field wiring – twisted pair, braided shield

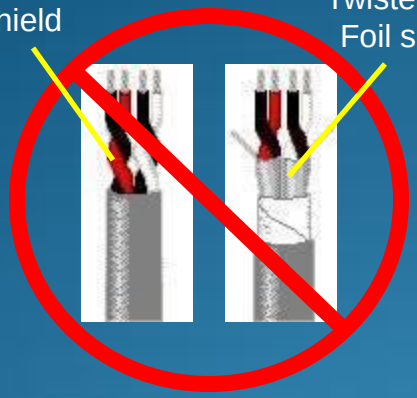
The sensor electronics enclosure configurations include RFI, EMI, and Lightning Suppression Circuitry (LSC) and require that the field wiring be shielded and placed in well-grounded conduit.

YES

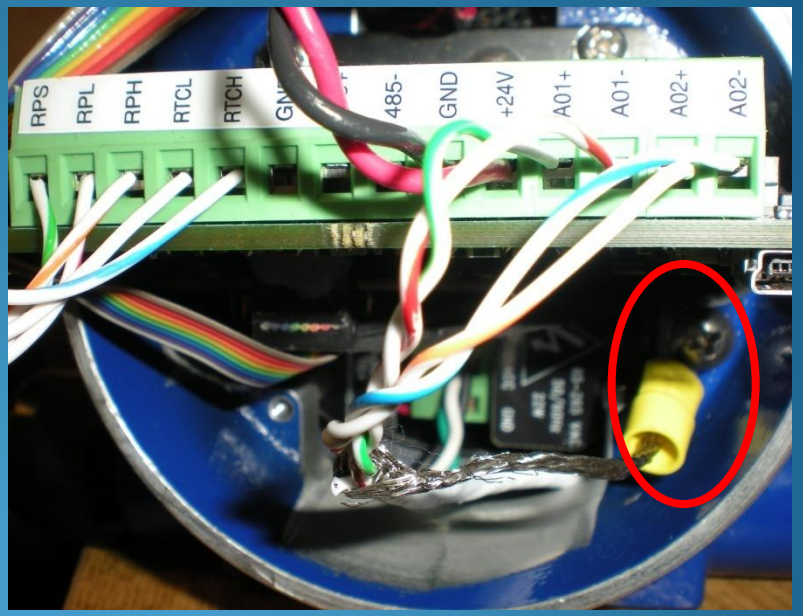
Twisted Pair
Braided shield

Twisted Pair
No shield

Twisted Pair
Foil shield



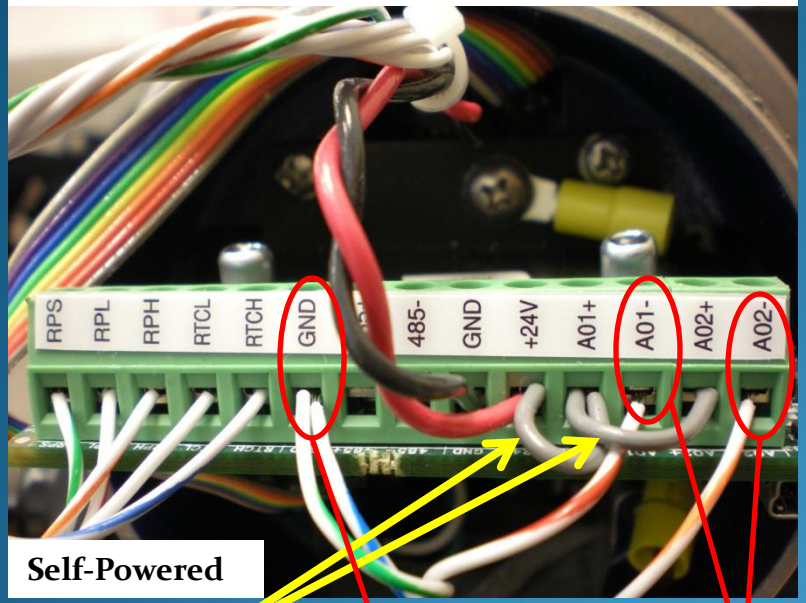
The braided shield is terminated at the enclosure ground screw as shown



Typical 4-20mA field wiring termination

4-20mA Output Wiring
Self-Powered and Loop-Powered

Self-Powered – internal 24V power supply in meter supplies the power for the 4-20 mA outputs. Outputs are not isolated from DC ground

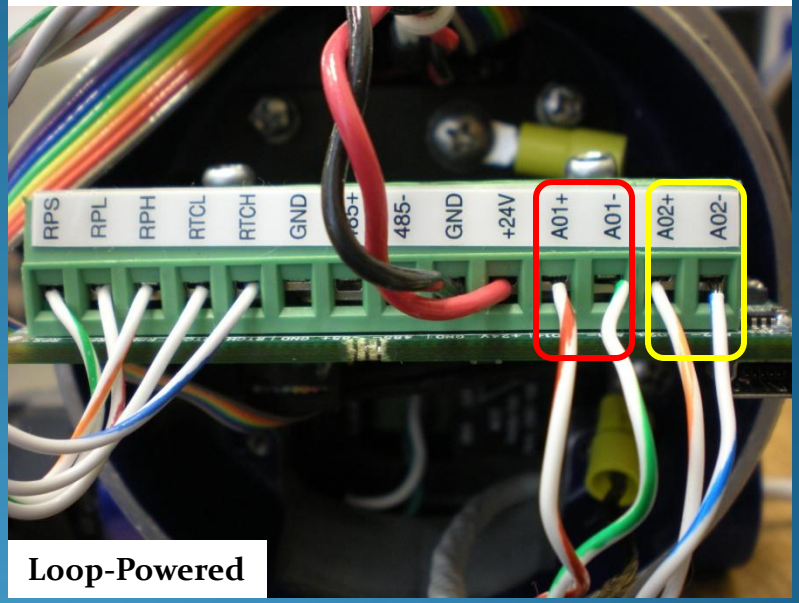


Self-Powered

Jumper wires (gray) across
+24V/AO1+ and AO1+/AO2+

Twisted pair field wiring
(+) terminates at AO1- or AO2-
(-) terminates at GND

Loop-Powered – customer supplies the power for the 4-20 mA outputs. Outputs are opto-isolated



Loop-Powered

Twisted pair field wiring
(+) terminates at AO1+ or AO2+
(-) terminates at AO1- or AO2-

NOTE: The 4-20 mA connections are polarity sensitive, if the wiring is reversed the output will be zero

The meter is configured at the factory with :
- AO1 assigned to output the process gas **FLOW**
- AO2 is assigned to output the process gas **TEMPERATURE**

This can be changed to fit the customer's installation requirements

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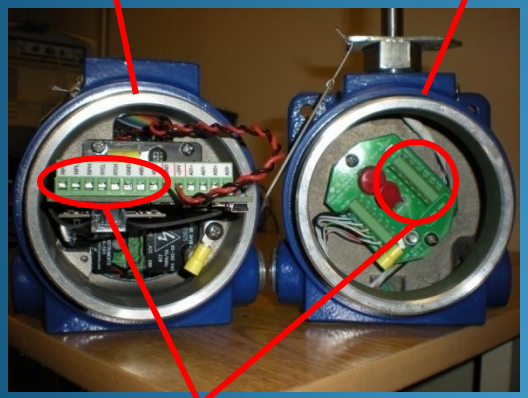
Transmitter Separate (TS) or Remote Sensor Configuration

Flow meters ordered as TS units are shipped with two enclosures

The paired enclosures must have matching sensor serial numbers as shown on the product label

Electronics Enclosure

Sensor Junction Box

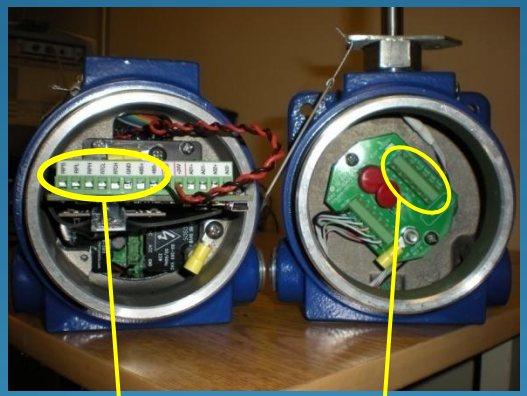


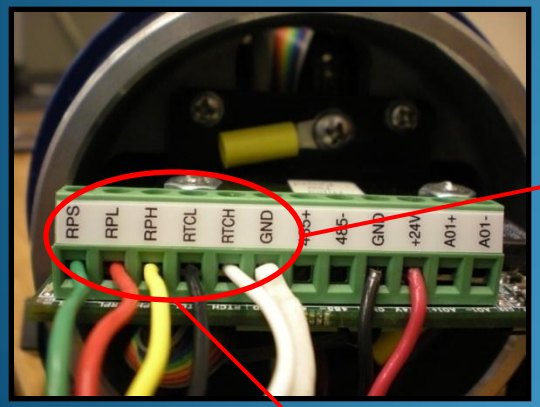
Terminal connections for sensor wiring

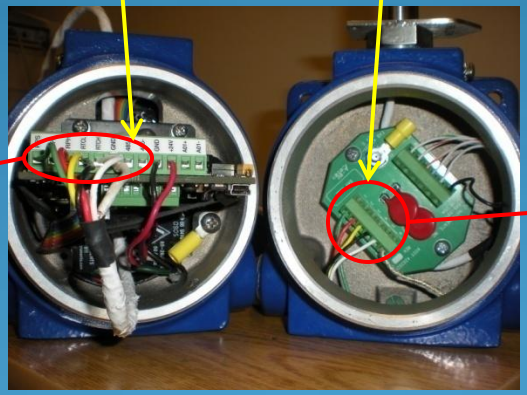
The customer supplies the 5-wire sensor connections between the paired enclosures of the TS configuration. The field wiring connecting the paired enclosures must be shielded to maintain the CE rating. 5 Conductor cable with braided shield should be used.

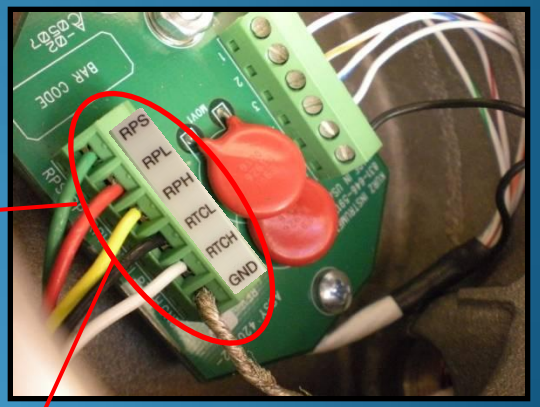
5 conductor cable w/ braided shield

Transmitter Separate (TS) or Remote Sensor Configuration (continued)



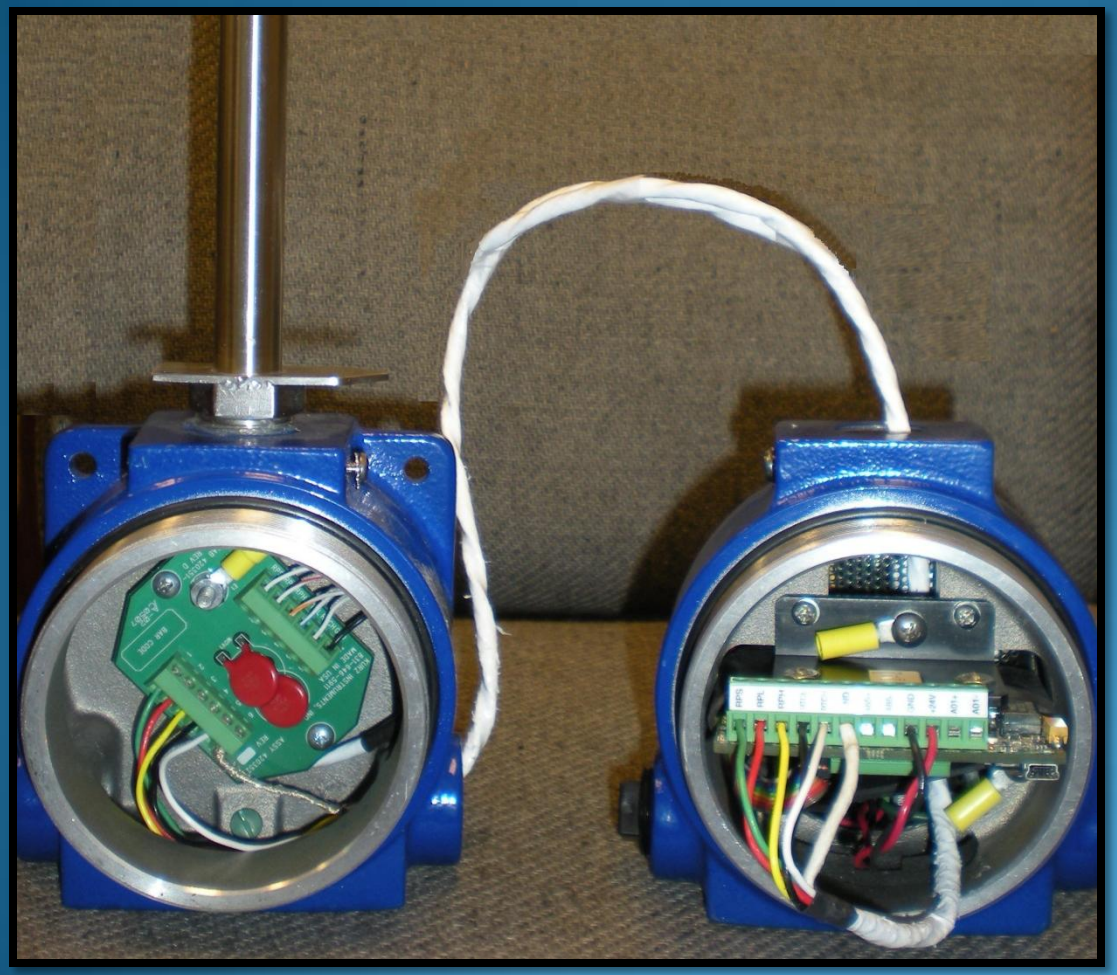






The sensor wires should terminate at the electronics enclosure and the sensor enclosure at the terminals marked RPS / RPL / RPH / RTCL / RTCH as shown and the braided shield should terminate at the GND terminals

Transmitter Separate (TS) or Remote Sensor Configuration (continued)

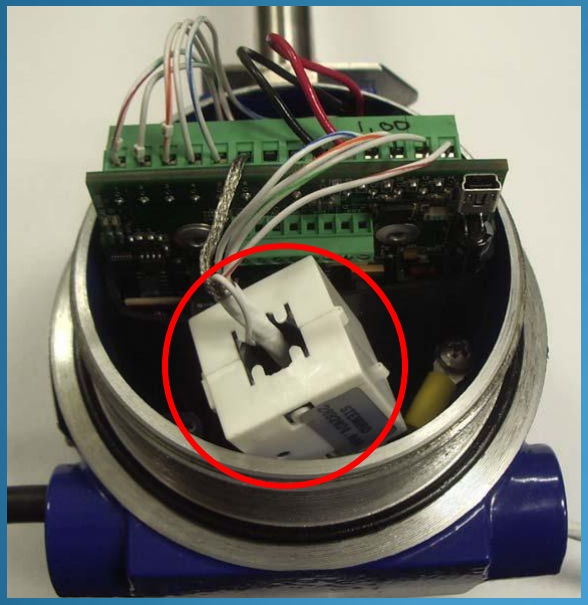


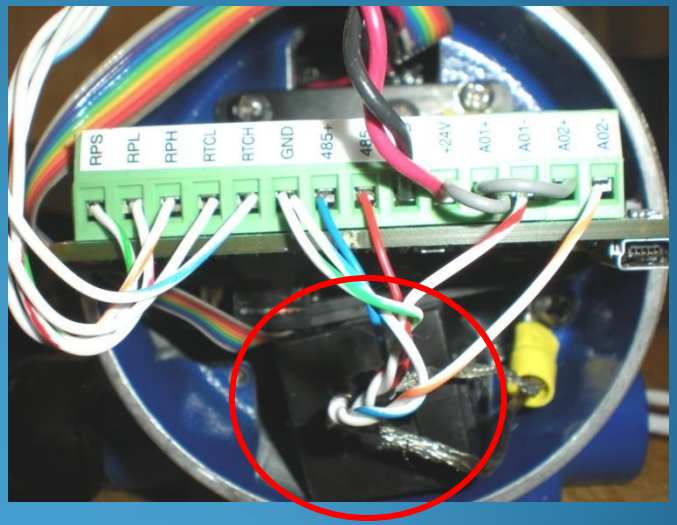
Example with short run of sensor cable attaching the electronics enclosure to the sensor junction enclosure

CE Compliance of EMC Specifications
EMI / RFI Shielding

Clip-on Ferrite provides EMI / RFI / TVI filter for noise suppression of electrical interference. One Ferrite kit ships with each meter.

Install the Ferrite clip around the field wiring (ie 24VDC, analog output, communication) as shown in the examples below





Shown here clipped around 4-20mA wiring and RS485 communication wiring

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