## **Maintenance & Operating Instructions** For

# API Rack Plugs & Cords

## **Part Numbers**

FT600	API Thermistor Rack Plug and 30' Coiled Cord Set (8 Channel)
FT600-4	API Thermistor Rack Plug (4) J and 30' Coiled Cord Set (8 Channel)

FT600C Canada Thermistor Rack Plug 30' Coiled Cord Set

FT600S API Thermistor Rack Plug and 20' Straight Cord Set (8 Channel)

Canada API Thermistor Plus and 20' Straight Cord Set FT600SC

FT601 API Thermistor Replacement Plug

FT601-10 API Thermistor Replacement Plug 10 Pin Canada FT602 Replacement 30' Coiled Cord – 10 Conductor FT604 Replacement 20' Straight Cord – 10 Conductor

FT605C API Plug 6 Pin Optic Pattern with 4 J Slots & 30' Coiled Optic Cord

Replacement 30' Coiled Cord – 8 Conductor FT606 Replacement 20' Straight Cord – 8 Conductor FT607 API Plug 6 Pin Optic Pattern With 4 J-Slots FT605C API Optic Rack Plug and 30' Coiled Cord Set FT620 API Optic Rack Plug and 20' Straight Cord Set FT620S

API Optic Replacement Plug FT621

Replacement 30' Coiled Cord – 6 Conductor FT622 FT624 Replacement 20' Straight Cord - 6 Conductor

FT9017 Thermistor plug body assembly Optic plug body assembly FT9018

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The Right Connection™

#### PRODUCT DESCRIPTION:

FloTech API Rack Plugs are design to meet the mechanical and electrical requirements outlined in API RP 1004 standard for Bottom Loading Cargo Tanks. The plugs can be wired into API cord junction boxes and feature a reliable polymer and stainless steel construction.

#### **Installation Steps:**

Follow these instructions to install a FloTech replacement plug assembly.

Step 1) Remove old plug from junction box and <u>record on a piece of paper the wire number that is</u> <u>connected to the corresponding numbered terminal screw.</u> Wires on the API cord typically have wire numbers 1-10 on the individual conductors. These wire numbers match the API plug pin number.

Step 2) Keep all cable gland parts used to seal the cord in the junction box. These will be reused.

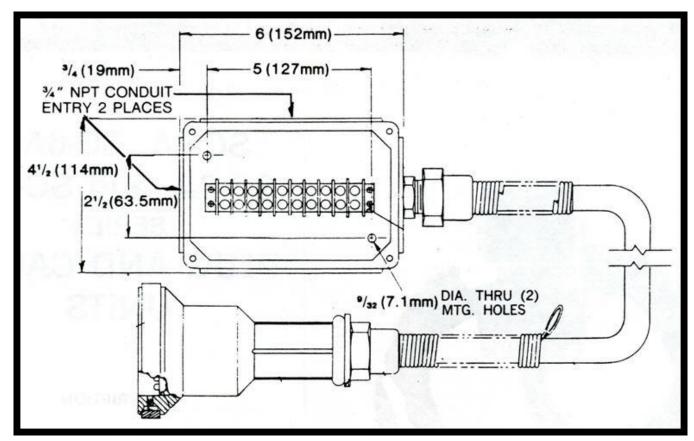
Step 3) Place junction box cable gland components over new FloTech API plug cord in same order as removed. Then install cable into junction box and tighten cable gland.

Step 4) Reconnected numbered wires on the plug cord to the numbered terminal block screws in the same order. **Follow the wire numbers, not the wire colors.** 

CAUTION: There is no standard to these connections. If any doubt use an ohm meter and verify API plug contact pin to wire number before removing the old plug and reconnecting the new plug.

Drawing below shows the FloTech API Replacement Plug installed in a rack mounted junction box.

Junction box not part of FT600/620 series replacement API plugs.



## To assemble a replacement cord to an existing rack plug, follow the procedure below.



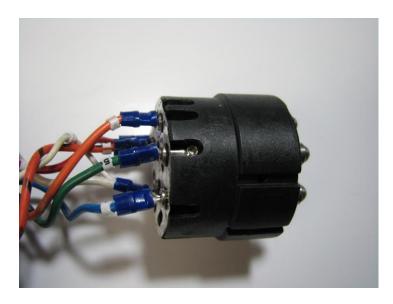
Per the picture above, loosen the large nut on the strain relief.



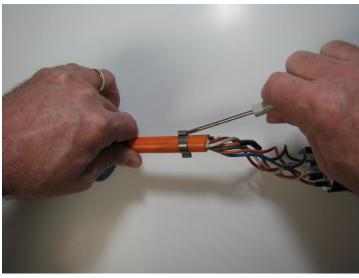
Per the picture above, loosen the screw on the side of the rack plug. This will release the black contact block containing the spring loaded contact pins.



Per the picture above, slide the contact block out of the rack plug body. Slide the orange cord into the plug body as the contact block is slid out.



Per the picture above, loosen (but do not completely remove) the small set screws holding the wires into the spring loaded pins.

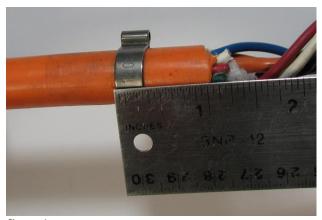


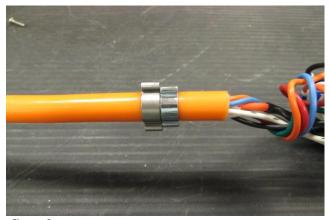
You can now remove the contact block from the cord. To remove the cord from the plug body you can loosen the clamp (see picture above) by inserting a screw driver in the crimped ears and twisting, or you can cut the cord off below the clamp so the cord can be removed through the strain relief.

### Reverse the process to attach the new cord to the old rack plug.



Per the picture above, slide the new rack cord through the strain relief spring and nut, then through the metal backup ring and rubber grommet and through the rack plug body.





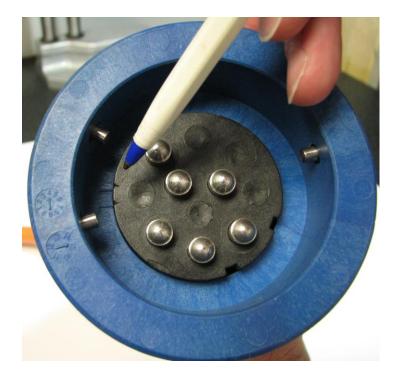
Step 1.

Step 2.

Per the pictures above, slide the large metal pinch-on clamp onto the cord and crimp it onto the orange jacket about 1" beyond the end of the orange jacket measured to the far side of the clamp as shown using Dixon clamp tool 1098. Then slide on the smaller clamp, making sure to align clamp ears with the first, and crimp.

Attach the wire ends to the contact pins by matching the wire numbers to the pin numbers. <u>Use the numbers</u> and not the wire colors from the old cord.

Tighten the set screws onto the wire ends.



Rotate the contact block as needed to take up excess wire and insert the contact block into the rack plug body such that the (2) index marks on the black plastic contact block align with the (2) index marks on the rack plug body (see picture above).

Hold the contact block firmly into the body and tighten the screw into the side of the rack plug body. Do not over tighten this screw.

Tighten the large nut on the strain relief.

## **Dixon Warranty**:

For warranty Information, please refer to the inside back cover of the latest Dixon catalogue.