TECH BULLETIN 807

Connecting an KR3 flow sensor to a KRain PRO EX irrigation controller



Creative Sensor Technology's KR3 flow sensor provides professional grade quality and performance commercial flow sensors. Available in multiple sizes of Noryl, PVC, and brass housings they measures flow rates from 0.20 to 160 gpm, may be installed underground and do not need to be removed in the winter. KR3 series sensors produce a digital pulse output and have unique programming constants that allow them to operate using with the KRain preset values. Now users of KRain Pro EX controllers can include CST PVC or Brass sensors, with greatly improved performance, pressure ratings and reliability.
Follow CST Installation guides to install the flow sensor in the piping .



KR3 flow sensors May be identified by the three wire leads, red white and yellow.

FSI-T20-KR3 2 " model

FSI-KR3 sensor inserts are pre-programmed for one size tee only and are not interchange-able. On start-up, the LED blinks a sequence that identifies the tee size and type to install it. See chart below.



KR3 sensor insert close-up

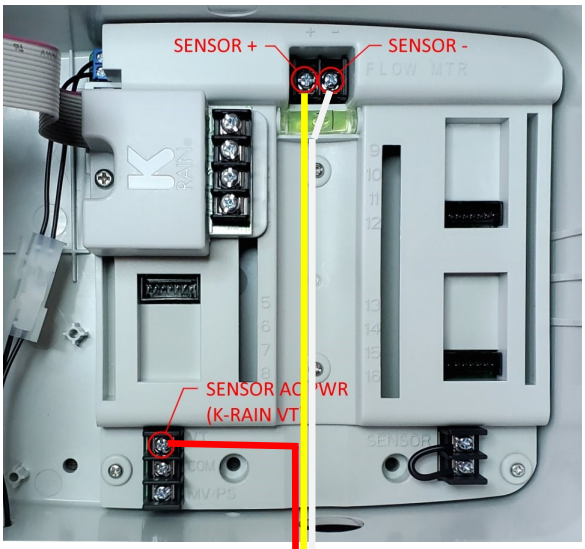
Sensor Model	Type	Pipe Size	Flow Range	Blink Code Identifier	
				KR3 Series	Size/type
ELF-T10-KR3	Noryl Tee	1 inch	0.2 to 20 gpm	6	1
FSI-T10-KR3	PVC Tee	1 inch	1 to 50 gpm	6	1
FSI-B10-KR3	Brass Tee	1 inch	1 to 50 gpm	6	2
FSI-T15-KR3	PVC Tee	1 1/2 inch	2 to 100 gpm	6	3
FSI-B15-KR3	Brass Tee	1 1/2 inch	3 to 90 gpm	6	4
FSI-T20-KR3	PVC Tee	2 inch	3 to 160 gpm	6	5

Wiring:

1. Wire leads from the flow sensor may be extended up to 1,000 feet using #20 gauge twisted three wire cable. Shielded cable is recommended for distances over 100 feet or where cable may run next to other conductors carrying higher power loads that might cause signal interference.
2. All wire connections should be made using waterproof connectors, such as 3M 316IR or 3M DBY.
3. Make all wire connections with the power to the controller OFF.
4. FSI-T– KR3 models require 24 VAC to power the circuit so they have three wire connections to the controller.

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Flow Sensor Connections to Controller:



1. Red lead to 24 VAC PWR

2 Yellow lead to sensor plus

3. White lead to sensor minus

Program the Controller:

Follow the instructions for SET FLOW METER on page 15 of the PRO EX Instruction Manual

After "SELSIZE" is displayed, push NEXT to select and proceed to choose the flow meter type and pipe size you have. Choose one of the following selections using the UP or DOWN buttons When the sensor selection is made, then follow the rest of the set-up instructions for The FLOW METER.





ELF-T10- SF3

TO USE THIS CST- SF3 FLOW SENSOR

SELECT THIS FLOW METER TYPE/ SIZE



ELF-T10-KR3 1 inch threaded Noryl tee



FSI-T10-KR3 1 inch PVC socket tee

735 1:0



FSI-B10-KR3 1 inch Brass threaded tee



FSI-T15-KR3 1 1/2 inch PVC socket tee

228 1:5



FSI-B15-KR3 1 1/2 inch Brass threaded tee



FSI-T20-KR3 2 inch PVC socket tee

228 2:0

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