



ONICON
Flow and Energy Measurement

ONICON INSTALLATION HARDWARE SELECTION GUIDE

ONICON installation kits are specifically designed for use with ONICON insertion flow and BTU (energy) meters. Their use is recommended with ONICON products.



F-1000 Series Turbine Flow Meter with INST0005-FMD Dry Tap Kit

INSTALLATION HARDWARE SELECTION GUIDE

How to use this selection guide?

1. Select the type of installation hardware required, either Dry Tap or Hot Tap.
2. Choose the pipe material.
3. Choose the Installation Kit based on material preference and/or pipe size.

What does Dry Tap or Hot Tap mean?

The terms "Dry Tap" and "Hot Tap" refer to the installation method of the isolation valve kit only.

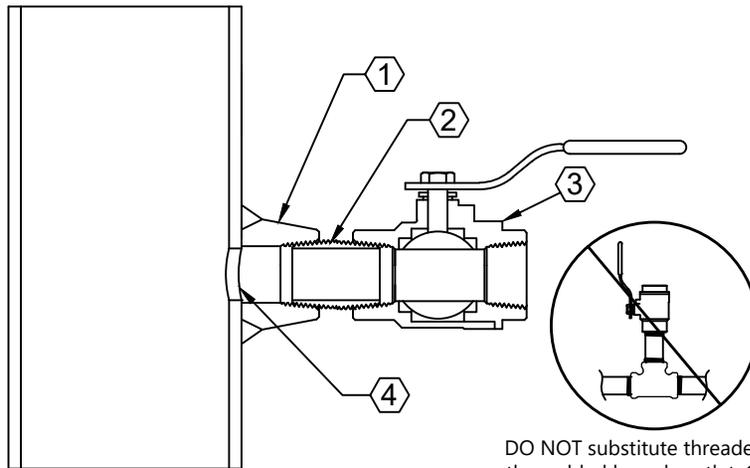
Dry Tap Installation Hardware

For new construction or scheduled shut down, the installation kit is installed into a dry, or unfilled system.

Hot Tap Installation Hardware

For installations which require the access hole in the pipe to be drilled through the installation valve, via a hot tap drilling machine, while the hydronic system is full and pressurized.

Below is an example of Dry Tap Installation Kit for Welded Steel Pipe:



1. 1" NPT welded branch outlet, typical for steel piping system installation.
2. 1" threaded close nipple
3. 1" full port ball valve
4. 1" minimum dia. access hole

DO NOT substitute threaded tees for the welded branch outlet. Contact ONICON if you need installation hardware for threaded pipe.

Important Note:

Installation hardware materials vary based on pipe material, pipe size and dry tap vs hot tap versions.

See next pages for the complete list of installation kits offered by ONICON. If you have any questions or need assistance, please contact ONICON at (727) 447-6140 or sales@onicon.com.

INSTALLATION HARDWARE SELECTION GUIDE



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DRY TAP INSTALLATION HARDWARE



For F-1000 Series, FSM-3 and F-3500 Flow Meters

Pipe Material	Model Number	Description	Items Included with Kit	Notes
Carbon Steel/ Black Iron (welded pipe)	INSTL0001-FMD	Insertion flow meter installation kit for pipe size range from 1.25" to 42". Wetted materials are bronze, brass and steel, for use in carbon steel piping systems.	<ul style="list-style-type: none"> • 1" Full port bronze ball valve • 1" Brass close nipple • 1" Weld-on carbon steel branch outlet 	Designed for use in hydronic systems.
	INSTL01DW-FMD	Insertion flow meter installation kit for pipe size range from 1.25" to 42". Wetted materials are bronze, CU and low lead brass, for use in carbon steel piping systems.	<ul style="list-style-type: none"> • 1" Full port bronze ball valve • 1" Brass close nipple • 1" Weld-on carbon steel branch outlet 	NSF certified for use in domestic water applications.
	INSTL0005-FMD	Insertion flow meter installation kit for pipe size range from 1.25" to 42". Wetted materials are SS, for use in carbon steel piping systems.	<ul style="list-style-type: none"> • 1" Full port SS ball valve • 1" SS close nipple • 1" Weld-on carbon steel branch outlet 	Designed for use in hydronic systems.
Carbon Steel/ Black Iron (threaded pipe)	INSTL0007-FMD	Insertion flow meter installation kit for pipe size range from 1.25" to 2.5". Wetted materials are bronze, brass and steel, for use in carbon steel piping systems.	<ul style="list-style-type: none"> • 1" Full port bronze ball valve • 1" Brass close nipple • (Pipe dia x 12" long) threaded nipple 1" NPT outlet 	Designed for use in hydronic systems.
	INSTL0008-FMD	Insertion flow meter installation kit for pipe size 1.25" to 2.5". Wetted materials are bronze, brass and steel, for use in carbon steel piping systems.	<ul style="list-style-type: none"> • 1" Full port SS ball valve • 1" SS close nipple • (Pipe dia x 12" long) threaded nipple 1" NPT outlet 	Designed for use in hydronic systems.
Copper Tube	INSTL0003-FMD	Insertion flow meter installation kit for pipe size range from 1.25" to 2". Wetted materials are bronze, CU and low lead brass, for use in copper piping systems.	<ul style="list-style-type: none"> • 1" Full port bronze ball valve • 1" Copper street adapter with MNPT threads • Copper tee with 1" outlet 	NSF certified for use in domestic water applications.
	INSTL0004-FMD	Insertion flow meter installation kit for pipe size range from 2.5" to 3". Wetted materials are bronze, CU and low lead brass, for use in copper piping systems.	<ul style="list-style-type: none"> • 1" Full port bronze ball valve • 1" Copper street adapter with MNPT threads • Copper tee with 1" outlet 	NSF certified for use in domestic water applications.
	INSTL0009-FMD	Insertion flow meter installation kit for pipe size 4". Wetted materials are bronze, CU and low lead brass, for use in copper piping systems.	<ul style="list-style-type: none"> • 1" Full port bronze ball valve • 1" Copper street adapter with MNPT threads • Copper tee with 1" outlet 	NSF certified for use in domestic water applications.
Stainless Steel	INSTL0018-FMD	Insertion flow meter installation kit for pipe size range from 1.25" to 42". Wetted materials are SS, for use in SS piping systems.	<ul style="list-style-type: none"> • 1" Full port SS ball valve • 1" SS close nipple • 1" SS weld-on branch outlet 	Designed for use in process water applications.

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DRY TAP INSTALLATION HARDWARE



For System-10, System-20 and F-4300 BTU Meters (For use with current (mA) based temperature sensors)

Pipe Material	Model Number	Description	Items Included with Kit	Notes
Steel Pipe Welded	INSTL0032-TSD	Temperature sensor (pair) installation kit for pipe size range from 0.75" to 5". Wetted materials are bronze, brass and steel, for use in carbon steel piping systems.	<ul style="list-style-type: none"> • (2) Brass thermowells • (2) Weld-on carbon steel branch outlets, ½" NPT • (2) Transmitter enclosures 	Designed for use in hydronic systems.
	INSTL0034-TSD	Temperature sensor (pair) installation kit for pipe size range from 0.75" to 42". Wetted materials are SS, for use in carbon steel piping systems.	<ul style="list-style-type: none"> • (2) SS thermowells • (2) Weld-on carbon steel branch outlets, ½" • (2) Transmitter enclosures 	Designed for use in hydronic systems.
	INSTL0066-TSD	Temperature sensor (pair) installation kit for pipe size range from 1.5" to 42". Wetted materials are SS, for use in carbon steel piping systems.	<ul style="list-style-type: none"> • (2) SS thermowells • (2) Weld-on carbon steel branch outlets, 1" • (2) High temperature transmitter enclosure assemblies 	Designed for use in hydronic systems, and in HTHW systems (T ≥ 300°F)
Steel Pipe Threaded	INSTL0052-TSD	Temperature sensor (pair) installation kit for pipe size range from 0.75" to 2.5". Wetted materials are bronze, brass and steel, for use in carbon steel piping systems.	<ul style="list-style-type: none"> • (2) Brass thermowells • (2) Brass reducer bushings, ½" (Sized for customer supplied threaded tee) • (2) Transmitter enclosures 	Designed for use in hydronic systems.
Steel /PVC Pipe with Saddles	INSTL0045-TSD	Temperature sensor (pair) installation kit for pipe size range from 1.5" to 8". Wetted materials are SS, for use in PVC piping systems.	<ul style="list-style-type: none"> • (2) SS thermowells • (2) Brass reducer bushings, 1" x ½" • (2) Ductile iron saddles for Sch std./40/80 pipe with 1" NPT outlets • (2) Transmitter enclosures 	Designed for use in hydronic systems.

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DRY TAP INSTALLATION HARDWARE



For System-10, System-20 and F-4300 BTU Meters (For use with current (mA) based temperature sensors)

Pipe Material	Model Number	Description	Items Included with Kit	Notes
Copper Tees (brass wells)	INSTL0036-TSD	Temperature sensor (pair) installation kit for pipe size range from 0.75" to 2". Wetted materials are bronze, brass and steel, for use in copper piping systems.	<ul style="list-style-type: none"> • (2) Copper tees with 1/2" outlet • (2) Brass thermowells • (2) Copper street adapter, 1/2" • (2) Transmitter enclosures 	Designed for use in hydronic systems.
	INSTL0037-TSD	Temperature sensor (pair) installation kit for pipe size range from 2.5" to 3". Wetted materials are bronze, brass and steel, for use in copper piping systems.	<ul style="list-style-type: none"> • (2) Copper tees with 1/2" outlet • (2) Brass thermowells • (2) Copper street adapter, 1/2" • (2) Transmitter enclosures 	Designed for use in hydronic systems.
	INSTL0038-TSD	Temperature sensor (pair) installation kit for pipe size 4". Wetted materials are bronze, brass and steel, for use in copper piping systems.	<ul style="list-style-type: none"> • (2) Copper tees with 1/2" outlet • (2) Brass thermowells • (2) Copper street adapter, 1/2" • (2) Transmitter enclosures 	Designed for use in hydronic systems.
Copper Tees (SS wells)	INSTL0083-TSD	Temperature sensor (pair) installation kit for pipe size range from 0.75" to 2". Wetted materials are SS, for use in copper piping systems.	<ul style="list-style-type: none"> • (2) Copper tees with 1/2" outlet • (2) SS thermowells • (2) Copper street adapter, 1/2" • (2) Transmitter enclosures 	Designed for use in hydronic systems.
	INSTL0086-TSD	Temperature sensor (pair) installation kit for pipe size range from 2.5" to 3". Wetted materials are SS, for use in copper piping systems.	<ul style="list-style-type: none"> • (2) Copper tees with 1/2" outlet • (2) SS thermowells • (2) Copper street adapter, 1/2" • (2) Transmitter enclosures 	Designed for use in hydronic systems.
Stainless Steel Pipe Welded	INSTL0061-TSD	Temperature sensor (pair) installation kit for pipe size range from 0.75" to 42". Wetted materials are SS, for use in SS piping systems.	<ul style="list-style-type: none"> • (2) SS thermowells • (2) Weld-on stainless steel branch outlets, 1/2" • (2) Transmitter enclosures 	Designed for use in process water applications.

INSTALLATION HARDWARE SELECTION GUIDE

DRY TAP INSTALLATION HARDWARE



For System-20, System-40 and F-4300 BTU Meters (For use with RTD temperature sensor pair)

Pipe Material	Model Number	Description	Items Included with Kit	Notes
Steel Pipe Threaded	INSTL4001-TSD	Temperature sensor (pair) installation kit for pipe size range from 0.5" to 1". Wetted material is low lead brass, for use in carbon steel piping systems. NSF certified for use in domestic water applications.	<ul style="list-style-type: none"> (2) Lead free brass NPT thermowells 	NPT threads sizes will match meter size. For use with customer supplied threaded steel tees. Suitable for use with SYS-40 where G=1 only. Refer to System-40 Selection and Ordering Guide for the meter ordering information.
	INSTL4002-TSI	Temperature sensor installation kit for pipe size range from 0.5" to 1". Wetted material is low lead brass, for use in carbon steel piping systems. Designed for use in hydronic systems.	<ul style="list-style-type: none"> (1) Lead free brass M10 x NPT reducer bushing 	NPT thread size will match meter size. For use with customer supplied threaded steel tee. Suitable for use with SYS-40 where temperature sensor option G=0 only. Refer to System-40 Selection and Ordering Guide for the meter ordering information.
Copper Tube	INSTL4003-TSD	Temperature sensor (pair) installation kit for pipe size range from 0.5" to 1". Wetted material is low lead brass, for use in copper piping systems. NSF certified for use in domestic water applications.	<ul style="list-style-type: none"> (2) Lead free brass flush thermowells 	Bushing sizes will match meter size. For use with customer supplied copper tees. Suitable for use with SYS-40 where G=1 only. Refer to System-40 Selection and Ordering Guide for the meter ordering information.
	INSTL4004-TSI	Temperature sensor installation kit for pipe size range from 0.5" to 1". Wetted material is low lead brass, for use in copper piping systems. Designed for use in hydronic systems.	<ul style="list-style-type: none"> (1) Lead free brass M10 x flush reducer bushing 	Bushing size will match meter size. For use with customer supplied copper tee. Suitable for use with SYS-40 where temperature sensor option G=0 only. Refer to System-40 Selection and Ordering Guide for the meter ordering information.
Steel / PVC / Copper	INSTL4005-TSD	Temperature sensor (pair) installation kit for pipe size range from 0.5" to 2.5". Wetted material is low lead brass. NSF certified for use in domestic water applications.	<ul style="list-style-type: none"> (2) 5.0 mm dia., lead free, brass, 1/2" NPT thermowells (2) Set screws 	Suitable for use with with F-4300, SYS-20, and SYS-40 (where G =2) BTU meters. Refer to SYS-40 or F-4300 Ordering Guides for the meter ordering information.

INSTALLATION HARDWARE SELECTION GUIDE

DRY TAP INSTALLATION HARDWARE



For System-20, System-40 and F-4300 BTU Meters (For use with RTD temperature sensor pair)

Pipe Material	Model Number	Description	Items Included with Kit	Notes
Copper Tube	INSTL4007-TSD	Temperature sensor (pair) installation kit for pipe size range from 1.25" to 2.5". Wetted materials are bronze, CU and low lead brass, for use in copper piping systems. NSF certified for use in domestic water applications.	<ul style="list-style-type: none"> • (2) 5.0 mm dia., lead free, brass, 1/2" NPT thermowells • (2) 1"x 1/2" street adapters • (2) Set screws 	For use with customer supplied tees with 1" outlets. Suitable for use with F-4300, SYS-20 and SYS-40 BTU meters.
Kits with Copper Tees	INSTL4008-TSD	Temperature sensor (pair) installation kit for pipe size range from 1.25" to 2". Wetted materials are bronze, CU and low lead brass, for use in copper piping systems. NSF certified for use in domestic water applications.	<ul style="list-style-type: none"> • (2) 5.0 mm dia., lead free, brass, 1/2" NPT thermowells • (2) 1"x 1/2" street adapters • (2) Copper tees with 1" outlets • (2) Set screws 	Suitable for use with F-4300, SYS-20 and SYS-40 BTU meters.
	INSTL4009-TSD	Temperature sensor (pair) installation kit for pipe size 2.5". Wetted materials are bronze, CU and low lead brass, for use in copper piping systems. NSF certified for use in domestic water applications.	<ul style="list-style-type: none"> • (2) 5.0 mm dia., lead free, brass, 1/2" NPT thermowells • (2) 1"x 1/2" street adapters • (2) Copper tees with 1" outlets • (2) Set screws 	Suitable for use with F-4300, SYS-20 and SYS-40 BTU meters.
Steel	INSTL4021-TSD	Temperature sensor (pair) installation kit for pipe size range from 3" to 48". Wetted materials are SS, for use in carbon steel piping systems. Designed for use in hydronic systems.	<ul style="list-style-type: none"> • (2) 6.0 mm dia., SS, 1/2" NPT thermowells • (2) Carbon steel 1/2" NPT branch outlets 	Suitable for use with F-4300 and SYS-20 BTU meters.

INSTALLATION HARDWARE SELECTION GUIDE

HOT TAP INSTALLATION HARDWARE



For F-1000 Series, FSM-3 and F-3500 Flow Meters

Pipe Material	Model Number	Description	Items Included with Kit	Notes
Carbon Steel/ Black Iron (welded pipe)	INSTL0002-FMH	Insertion flow meter hot tap installation kit for pipe size range from 1.25" to 42". Wetted materials are bronze, brass and steel, for use in carbon steel piping systems.	<ul style="list-style-type: none"> • 1 1/4" Full port bronze ball valve • 1 1/4" Brass close nipple • 1 1/4" x 1" Brass reducing bushing • 1 1/4" Weld-on carbon steel branch outlet 	Designed for use in hydronic systems.
	INSTL02DW-FMH	Insertion flow meter hot tap installation kit for pipe size range from 1.25" to 42". Wetted materials are bronze, CU and low lead brass, for use in carbon steel piping systems.	<ul style="list-style-type: none"> • 1 1/4" Full port bronze ball valve • 1 1/4" SS close nipple • 1 1/4" x 1" SS reducing bushing • 1 1/4" Weld-on carbon steel branch outlet 	NSF certified for use in domestic water applications.
	INSTL0006-FMH	Insertion flow meter hot tap installation kit for pipe size range from 1.25" to 42". Wetted materials are SS, for use in carbon steel piping systems.	<ul style="list-style-type: none"> • 1 1/4" Full port SS ball valve • 1 1/4" SS close nipple • 1 1/4" x 1" SS reducing bushing • 1 1/4" Weld-on carbon steel branch outlet 	Designed for use in hydronic systems.
Carbon Steel or PVC Pipe w/Saddles	INSTL019A-FMH	Insertion flow meter hot tap installation kit for pipe size range from 1.5" to 6". Wetted materials are bronze, CU and low lead brass, for use in PVC piping systems.	<ul style="list-style-type: none"> • 1 1/4" Full port bronze ball valve • 1 1/4" Brass close nipple • 1 1/4" x 1" Brass reducing bushing • Ductile iron saddle with 1 1/4" outlet 	
	INSTL019B-FMH	Insertion flow meter hot tap installation kit for pipe size range from 8" to 14". Wetted materials are bronze, CU and low lead brass, for use in PVC piping systems.	<ul style="list-style-type: none"> • 1 1/4" Full port bronze ball valve • 1 1/4" Brass close nipple • 1 1/4" x 1" Brass reducing bushing • Ductile iron saddle with 1 1/4" outlet 	
Copper Tube w/Saddles	INSTL0021-FMH	Insertion flow meter hot tap installation kit for pipe size 2". Wetted materials are bronze, CU and low lead brass, for use in copper piping systems.	<ul style="list-style-type: none"> • 1 1/4" Full port bronze ball valve • 1 1/4" Brass close nipple • 1 1/4" x 1" Brass reducing bushing • Ductile iron or SS saddle with 1 1/4" outlet 	NSF certified for use in domestic water applications.
	INSTL0022-FMH	Insertion flow meter hot tap installation kit for pipe size range from 2.5" to 6". Wetted materials are bronze, CU and low lead brass, for use in copper piping systems.	<ul style="list-style-type: none"> • 1 1/4" Full port bronze ball valve • 1 1/4" Brass close nipple • 1 1/4" x 1" Brass reducing bushing • SS saddle with 1 1/4" outlet 	NSF certified for use in domestic water applications.

INSTALLATION HARDWARE SELECTION GUIDE

HOT TAP INSTALLATION HARDWARE



For F-1000 Series, FSM-3 and F-3500 Flow Meters

Pipe Material	Model Number	Description	Items Included with Kit	Notes
Stainless Steel	INSTL0031-FMH	Insertion flow meter hot tap installation kit for pipe size range from 1.25" to 42". Wetted materials are SS, for use in SS piping systems.	<ul style="list-style-type: none"> • 1 1/4" Full port 316 SS ball valve • 1 1/4" 316 SS close nipple • 1 1/4" x 1" 316 SS reducing bushing • 1 1/4" Weld-on 316 SS branch outlet 	Designed for use in process water applications.
HDPE/PPR	INSTL5001-FMH	Insertion flow meter hot tap installation kit for pipe size range from 1.25" to 42". Wetted materials are bronze, brass and steel, for use in HDPE/PPR piping systems.	<ul style="list-style-type: none"> • 1 1/4" Full port bronze ball valve • 1 1/4" Brass close nipple • 1 1/4" x 1" Brass reducing bushing 	Designed for use in hydronic systems. For use with customer supplied branch/fusion outlet, total stack height not to exceed 7".
	INSTL5002-FMH	Insertion flow meter hot tap installation kit for pipe size range from 1.25" to 42". Wetted materials are bronze, CU and low lead brass, for use in HDPE/PPR piping systems.	<ul style="list-style-type: none"> • 1 1/4" Full port bronze ball valve • 1 1/4" SS close nipple • 1 1/4" x 1" SS reducing bushing 	NSF certified for use in domestic water applications. For use with customer supplied branch/fusion outlet, total stack height not to exceed 7".
	INSTL5003-FMH	Insertion flow meter hot tap installation kit for pipe size range from 1.25" to 42". Wetted materials are SS, for use in HDPE/PPR piping systems.	<ul style="list-style-type: none"> • 1 1/4" Full port SS ball valve • 1 1/4" SS close nipple • 1 1/4" x 1" SS reducing bushing 	Designed for use in hydronic systems. For use with customer supplied branch/fusion outlet, total stack height not to exceed 7".

INSTALLATION HARDWARE SELECTION GUIDE

HOT TAP INSTALLATION HARDWARE



For F-2000 Series and F-1500 Flow Meters

Pipe Material	Model Number	Description	Items Included with Kit	Notes
Carbon Steel/ Black Iron (welded pipe)	INSTL201S-FMH	Insertion flow meter hot tap installation kit for pipe size range from 2" to 42". Wetted materials are carbon steel, for use in carbon steel piping systems.	<ul style="list-style-type: none"> • 2" Full port carbon steel class 150 flanged gate valve • 2" Carbon steel class 150 weld-neck flange • 2" Weld-on carbon steel branch outlet 	Designed for use in steam systems.
	INSTL203S-FMH	Insertion flow meter hot tap installation kit for pipe size range from 2" to 42". Wetted materials are carbon steel, for use in carbon steel piping systems.	<ul style="list-style-type: none"> • 2" Full port carbon steel class 300 flanged gate valve • 2" Carbon steel class 300 weld-neck flange • 2" Weld-on carbon steel branch outlet 	Designed for use in steam systems.

For F-5000 Series Flow Meters

Model Number	Description	Notes
INSTL0094-FMH	Insertion flow meter hot tap installation kit, wetted materials are bronze, brass and steel, for use in carbon steel piping systems.	Designed for use in NG and compressed air systems.
INSTL0096-FMH	Insertion flow meter hot tap installation kit, wetted materials are SS, brass and carbon steel, for use in carbon steel piping systems.	Designed for use in NG and compressed air systems.

INSTALLATION HARDWARE SELECTION GUIDE

HOT TAP INSTALLATION HARDWARE



For System-10, System-20 and F-4300 BTU Meters (For use with current (mA) based temperature sensors)

Pipe Material	Model Number	Description	Items Included with Kit	Notes
Steel Pipe Welded	INSTL0033-TSH	Temperature sensor (pair) hot tap installation kit for pipe size range from 1.25" to 42". Wetted materials are bronze, brass and steel, for use in carbon steel piping systems.	<ul style="list-style-type: none"> • (2) SS hot tap thermowells with brass hot tap adapters • (2) Full port bronze ball valves, 1" • (2) Brass close nipples • (2) Weld-on carbon steel branch outlets, 1" NPT • (2) Transmitter enclosures 	Designed for use in hydronic systems.
	INSTL0035-TSH	Temperature sensor (pair) hot tap installation kit for pipe size range from 1.25" to 42". Wetted materials are SS, for use in carbon steel piping systems.	<ul style="list-style-type: none"> • (2) SS hot tap thermowells with stainless steel hot tap adapters • (2) Full port stainless steel ball valves, 1" • (2) SS close nipples • (2) Weld-on carbon steel branch outlets, 1" • (2) Transmitter enclosures 	Designed for use in hydronic systems.
Steel or PVC Pipe with Saddles	INSTL0060-TSH	Temperature sensor (pair) hot tap installation kit for pipe size range from 1.5" to 6". Wetted materials are SS, for use in PVC piping systems.	<ul style="list-style-type: none"> • (2) SS hot tap thermowells with brass hot tap adapters • (2) Full port bronze ball valves, 1" • (2) Brass close nipples • (2) Ductile iron saddles for Sch std./40/80 pipe with 1" NPT outlets • (2) Transmitter enclosures 	Designed for use in hydronic systems.
	INSTL060A-TSH	Temperature sensor (pair) hot tap installation kit for pipe size range from 8" to 14". Wetted materials are SS, for use in PVC piping systems.	<ul style="list-style-type: none"> • (2) SS hot tap thermowells with brass hot tap adapters • (2) Full port bronze ball valves, 1" • (2) Brass close nipples • (2) Ductile iron saddles for Sch std./40/80 pipe with 1" NPT outlets • (2) Transmitter enclosures 	Designed for use in hydronic systems.
	INSTL0065-TSH	Temperature sensor (pair) hot tap installation kit for pipe size range from 6" to 12". Wetted materials are SS, for use in PVC piping systems.	<ul style="list-style-type: none"> • (2) SS hot tap thermowells with stainless steel hot tap adapters • (2) Full port stainless steel ball valves, 1" • (2) SS close nipples • (2) Ductile iron saddles for Sch std./40/80 pipe with 1" NPT outlets • (2) Transmitter enclosures 	Designed for use in hydronic systems.

INSTALLATION HARDWARE SELECTION GUIDE

HOT TAP AND CLAMP-ON INSTALLATION HARDWARE

For System-10, System-20 and F-4300 BTU Meters (For use with current (mA) based temperature sensors)

Pipe Material	Model Number	Description	Items Included with Kit	Notes
Copper Tube with Saddles	INSTL0040-TSH	Temperature sensor (pair) hot tap installation kit for pipe size range from 2" to 6". Wetted materials are SS, for use in copper piping systems.	<ul style="list-style-type: none">• (2) SS hot tap thermowells with brass hot tap adapters• (2) Full port bronze ball valves, 1"• (2) Brass close nipples• (2) SS saddles for copper tube with 1" NPT outlets• (2) Transmitter enclosures	Designed for use in hydronic systems.
Steel Pipe	INSTL0501-TSC	Installation kit for pipe size range from 0.5" to 48". Materials consist of aluminum and brass, for use in carbon steel piping systems.	<ul style="list-style-type: none">• (2) Clamp-on thermowell blocks w/clamps• (2) Transmitter enclosures	Designed for use in hydronic systems.
Copper Tube	INSTL0502-TSC	Installation kit for pipe size range from 0.5" to 6". Materials consist of aluminum and brass, for use in copper piping systems.	<ul style="list-style-type: none">• (2) Clamp-on thermowell blocks w/clamps• (2) Transmitter enclosures	Designed for use in hydronic systems.

