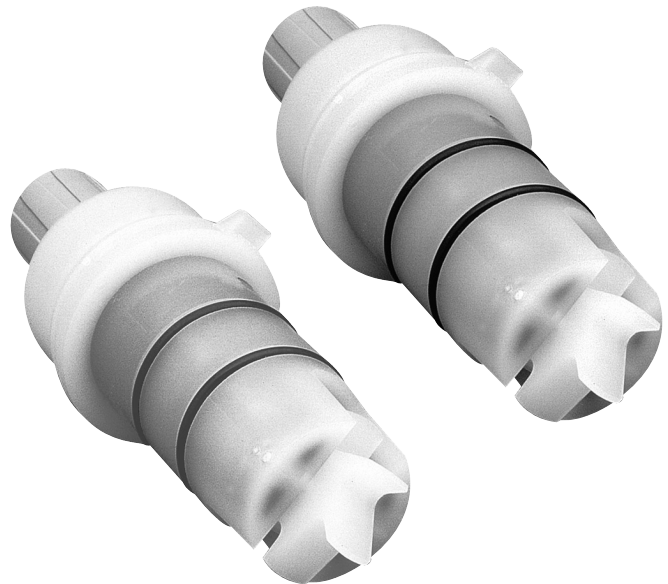


# Tee-Mount Flow Sensors

- For pipe sizes from 1/2 to 4 inches
- Non-magnetic sensing technique
- Variable frequency square wave signal
- Wide rangeability
- Superior low-velocity performance
- FDA-approved wetted materials
- For use with F53, F33 or PRO-F3 controllers/ transmitters

FLOW



## Features and Benefits

### Economical and Practical

An F53 or F33 controller can independently monitor four sensors, making this system both economical and convenient to use.

### Principal of Operation

Hach's Impeller Flow sensors unique non-magnetic sensing technique is impervious to fouling from metal particles. The non-magnetic sensing technique reduces drag for superior low-flow and low-volume measurement accuracy.

*Accurate flow measurement at an economical price.*

The forward-swept, six-bladed impeller has significantly better low-flow, low-velocity characteristics than conventional four-bladed impellers to provide higher measuring accuracy.

WW

IW

C

Mounting Tee Size

Mounting Tees	1/2 inch	3/4 inch	1 inch	1 inch (high flow)	1 1/4 inch	1 1/2 inch	2 inch	3 inch	4 inch
PVC tees	MHF15J2	MHF15K2	MHF15B2	MHF15L2	—	MHF15D2	MHF15E2	MHF15G2	MHF15H2
Cast bronze tees	—	—	MHF13B1	—	MHF13C1	MHF13D1	—	—	—
PVDF tees	—	—	—	—	—	MHF16D2	MHF16E2	MHF16G2	MHF16H2

## Specifications\*

### MODEL F1A11A1T POLYPROPYLENE SENSOR

#### Maximum Temperature

In PVC Tee 140°F at 40 psi (60°C at 2.75 bar)  
 In Cast Bronze Tee 176°F at 400 psi (80°C at 27.5 bar)  
 In PVDF Tee 140°F at 40 psi (60°C at 2.75 bar)

#### Maximum Pressure

In PVC Tee 100 psi at 77°F (6.9 bar at 25°C)  
 In Cast Bronze Tee 400 psi at 176°F (27.5 bar at 80°C)  
 In PVDF Tee 100 psi at 77°F (6.9 bar at 25°C)  
 Repeatability (in any tee) ±0.5% of full scale  
 Linearity (in any tee) ±1% of full scale

#### Accuracy\*\*

In PVC Tee ±1% of full scale from 1 to 30 ft./sec. (0.3 to 9.0 m/sec.)  
 In Cast Bronze Tee ±1% of full scale from 1 to 20 ft./sec. (0.3 to 6.0 m/sec.)  
 In PVDF Tee ±1% of full scale from 1 to 30 ft./sec. (0.3 to 9.0 m/sec.)

#### Sensor Cable

2 conductor (plus shield), 20 ft. (6 m)

#### Wetted Materials

Polypropylene body, Polypropylene impeller, TTZ (transformation toughened zirconia), ceramic shaft and EPR O-rings

### MODEL F1A11B2T PVDF SENSOR

#### Maximum Temperature

In Cast Bronze Tee 176°F at 400 psi (80°C at 27.5 bar)

#### Maximum Pressure

In Cast Bronze Tee 400 psi at 176°F (27.5 bar at 80°C)  
 Repeatability ±0.5% of full scale  
 Linearity ±1% of full scale

#### Accuracy\*\*

In Cast Bronze Tee ±1% of full scale from 1 to 20 ft./sec. (0.3 to 6.0 m/sec.)

#### Sensor Cable

2 conductor (plus shield), 20 ft. (6 m)

#### Wetted Materials

PVDF body, PVDF impeller, TTZ (transformation toughened zirconia), ceramic shaft and Viton O-rings

\*Subject to change without notice.

\*\*Accuracy is attained with at least 10 diameters of straight pipe upstream of sensor and at least 5 diameters of straight pipe downstream from sensor, and with full pipe flow.

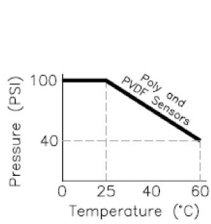
DW = drinking water WW = wastewater municipal PW = pure water / power  
 IW = industrial water E = environmental C = collections FB = food and beverage



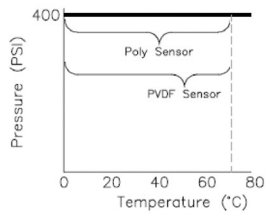
Be Right™

## Sensor Pressure/Temperature Ratings

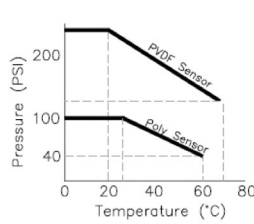
In PVC Tee



In Cast Bronze Tee



In PVDF Tee



At Hach, it's about learning from our customers and providing the right answers. It's more than ensuring the quality of water—it's about ensuring the quality of life. When it comes to the things that touch our lives...

Keep it pure.

Make it simple.

Be right.

For current price information, technical support, and ordering assistance, contact the Hach office or distributor serving your area.

In the United States, contact:

HACH COMPANY World Headquarters  
P.O. Box 389  
Loveland, Colorado 80539-0389  
U.S.A.  
Telephone: 800-227-4224  
Fax: 970-669-2932  
E-mail: orders@hach.com  
[www.hach.com](http://www.hach.com)

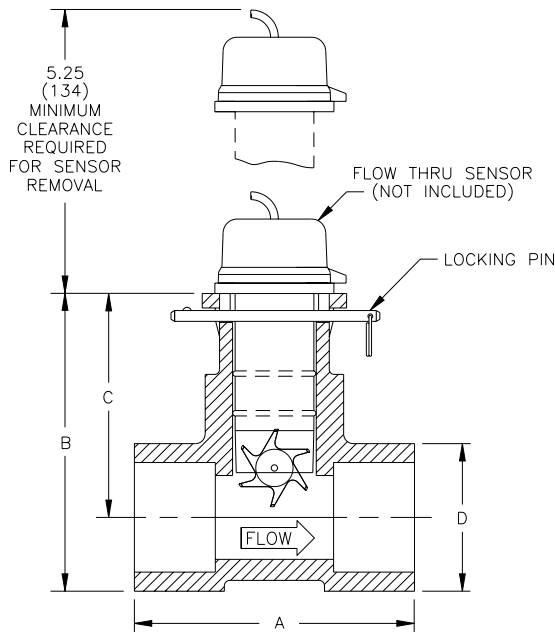
U.S. exporters and customers in Canada, Latin America, sub-Saharan Africa, Asia, and Australia/New Zealand, contact:

HACH COMPANY World Headquarters  
P.O. Box 389  
Loveland, Colorado 80539-0389  
U.S.A.  
Telephone: 970-669-3050  
Fax: 970-461-3939  
E-mail: intl@hach.com  
[www.hach.com](http://www.hach.com)

In Europe, the Middle East, and Mediterranean Africa, contact:

HACH LANGE GmbH  
Willstätterstraße 11  
D-40549 Düsseldorf  
GERMANY  
Tel: +49 (0) 211 5288-0  
Fax: +49 (0) 211 5288-143  
E-mail: info@hach-lange.de  
[www.hach-lange.com](http://www.hach-lange.com)

## Dimensions



## Ordering Information

- F1A11A1T Polypropylene Sensor  
F1A11B2T PVDF Sensor

LITG501 Rev 2

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In the interest of improving and updating its equipment, Hach Company reserves the right to alter specifications to equipment at any time.



Be Right™