

# Inline Flow Meters NPT or BSPT



**V3040-15 or V3040BSPT-15**  
**1.5" Meter**

**V3050 or V3050BSPT**  
**2" Meter**

**V3075 or V3075BSPT**  
**3" Meter**

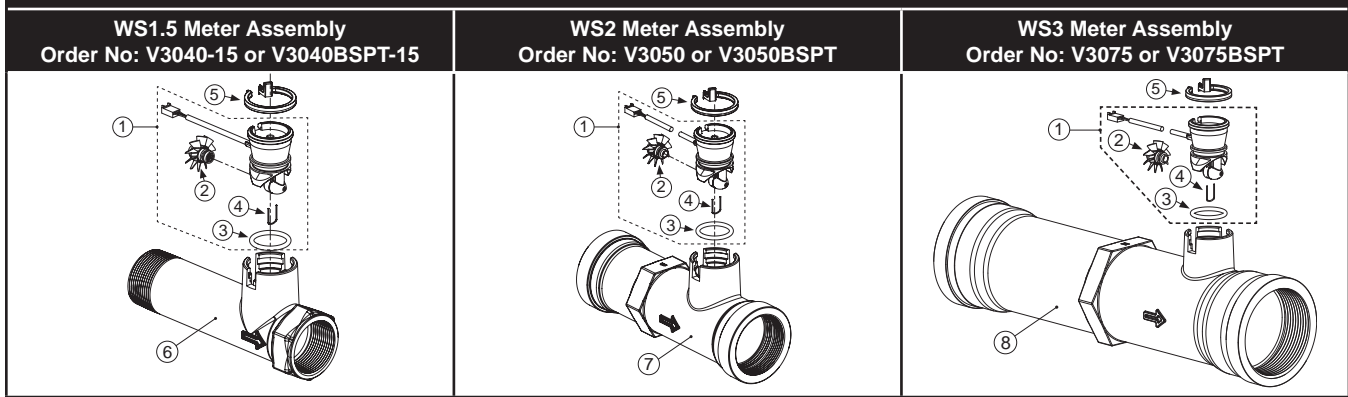


- 1.5" Inline meter suited for commercial/ industrial applications
- Lead Free Brass construction
- Service flow range 0.5 to 75 gpm (2-284 lpm)
- Meter accuracy  $\pm 5\%$
- Reliable and proven turbine design
- 15-foot cable included
- 1.5" Male x Female NPT or BSPT connections

- 2" Inline meter suited for commercial/ industrial applications
- Stainless Steel construction
- Service flow range 1.5 to 150 gpm (5.7-568 lpm)
- Meter accuracy  $\pm 5\%$
- Reliable and proven turbine design
- 15-foot cable included
- 2" Female x Female NPT or BSPT connection/2.5" Groove Lock Coupling

- 3" Inline meter suited for commercial/ industrial applications
- Stainless Steel construction
- Service flow range 3.5 to 350 gpm (13-1,325 lpm)
- Meter accuracy  $\pm 5\%$
- Reliable and proven turbine design
- 15-foot cable included
- 3" Female x Female NPT or BSPT connection/3.5" Groove Lock Coupling

# Inline Flow Meters NPT or BSPT



Drawing No.	Order No.	Description	Quantity
<b>Common Parts</b>			
1	V3221	WS Remote Meter Asy 15 Ft Cord (includes V3118-03, V3501 and V3105)	1
2	V3118-03	WS1.5/2 Turbine Asy	1
3	V3105	O-Ring 215	1
4	V3501	WS1.5/2 Turbine Clip	1
5	V3632	WS1.5/2/3 Meter Retaining Clip	1
<b>WS1.5 Meter Assembly Parts</b>			
6	V3401-01	WS1.5 Meter Housing NPT	1
	V3401BSPT-01	WS1.5 Meter Housing BSPT	
Not Shown	V3437	WS1.5 Flow Straightener (located inside meter housing)	1
<b>WS2 Meter Assembly Parts</b>			
7	V3222-01	WS2 Meter NPT Housing	1
	V3222BSPT-01	WS2 Meter BSPT Housing	
Not Shown	V3488	WS2 Flow Straightener (located inside meter housing)	1
<b>WS3 Meter Assembly Parts</b>			
8	V3601-01	WS3 Meter NPT Housing	1
	V3601BSPT-01	WS3 Meter BSPT Housing	
Not Shown	V3602	WS3 Flow Straightener (located inside meter housing)	1

## Installation

Installation of the V3040-15 WS1.5 Meter NPT Assembly can be accomplished using 1.5" NPT pipe and fittings.  
 For V3040BSPT-15 WS1.5 Meter BSPT use 1.5" BSPT pipe and fittings.

Installation of the V3050 WS2 Meter NPT Assembly can be accomplished with 2" NPT pipe or by using a 2.5" groove lock coupling.  
 For V3050BSPT WS2 Meter BSPT Assembly use 2" BSPT pipe or 2.5" groove lock coupling.

Installation of the V3075 WS3 Meter NPT Assembly can be accomplished with 3" NPT pipe or by using a 3.5" groove lock coupling.  
 For V3075BSPT WS3 Meter BSPT Assembly use 3" BSPT pipe or 3.5" groove lock coupling.

**WHEN INSTALLING THE METER, MAKE SURE THE ARROW ON THE METER BODY IS GOING THE SAME DIRECTION AS THE WATER FLOW.  
 IT IS RECOMMENDED THAT THE METER ASSEMBLY BE INSTALLED HORIZONTALLY OR IN A DOWNFLOW VERTICAL POSITION  
 TO REDUCE TURBINE BEARING WEAR.**

**THIS WATER METER SHOULD NOT BE USED AS THE PRIMARY MONITORING DEVICE FOR CRITICAL HEALTH EFFECT APPLICATIONS.  
 OPERATING PRESSURES: 20 PSI MINIMUM / 125 PSI MAXIMUM (1.4 - 8.6 BAR) • OPERATING TEMPERATURES: 40°F MINIMUM / 110°F MAXIMUM (4° - 43° C)**

The 22 gauge wire crimp terminals are Molex Series 41572 or 40445. The housing connector is Molex Series 2695 White Housing, P/N 22-01-3037.

The housing connector diagram shows the proper installation of the RED, WHITE and BLACK wires for CLACK CORPORATION CONTROL VALVES. When connecting to other manufacturers control valves please contact your original equipment manufacturer for proper wiring instructions.

Wiring:

- The meter must be supplied with a DC voltage between 4 and 24 volts
- The RED wire is positive
- The BLACK wire is negative
- The WHITE wire is the meter output

Calibration Instructions for WS1.5 Meters:

- For WS1.5" valves select 1.5 if valve software records in gallons and 38 if valve software records in cubic meters.
- The calibration factor for the Meter Assembly is 37 pulses per gallon or 9.8 pulses per liter when used on applications other than WS1.5" valves.
- The meter flow range is 0.5-75 gpm (2-284 lpm) + 5% (output signal 0.4 Hz to 47.5 Hz). NOTE: Not all flow monitors will register accurately at either the low or high flow range of this meter. Contact your flow monitor manufacturer for limitations.
- Pressure drop at 75 gpm (284 lpm) is 2.7 PSI (0.2 bar)

Calibration Instructions for WS2 Meters:

- For WS2H valves select 2.0 if valve software records in gallons and 50 if valve software records in cubic meters.
- For WS2 valves select 2.0 if valve software records in gallons and 50 if valve software records in cubic meters.
- The calibration factor for the WS2 Meter Assembly is 20 pulses per gallon or 5.3 pulses per liter when used on applications other than WS2H or WS2 valves.
- The meter flow range is 1.5-150 gpm (5.7-568 lpm) + 5% (output signal 0.4 Hz to 47.5 Hz). NOTE: Not all flow monitors will register accurately at either the low or high flow range of this meter. Contact your flow monitor manufacturer for limitations.
- Pressure drop at 150 gpm (568 lpm) is 3.6 PSI (0.3 bar)

Calibration Instructions for WS3 Meters:

- For WS2H valves select 8 pulses if valve software records in gallons and 2.1 if valve software records in liters.
- The calibration factor for the WS3 Meter Assembly is 8 pulses per gallon or 2.1 pulses per liter when used on applications other than WS2H valves.
- The meter flow range is 3.5-350 gpm (13-1,325 lpm) + 5% (output signal 0.46 Hz to 46.6 Hz). NOTE: Not all flow monitors will register accurately at either the low or high flow range of this meter. Contact your flow monitor manufacturer for limitations.
- Pressure drop at 350 gpm (1,325 lpm) is 7.3 PSI (0.50 bar)

