Clack®

Stainless Steel Inline Flow Meters

1.5" Meter V3040-15 or V3040BSPT-15	2" Meter V3094-15 or V3094BSPT-15	3" Meter V3095-15 or V3095BSPT-15
• 1.5" Inline meter suited for commercial/industrial applications	• 2" Inline meter suited for commercial/industrial applications	• 3" Inline meter suited for commercial/industrial applications
• 316 stainless steel material	• 316 stainless steel material	• 316 stainless steel material
• Electro polished for improving corrosion resistance, leaving a lasting bright finish	• Electro polished for improving corrosion resistance, leaving a lasting bright finish	• Electro polished for improving corrosion resistance, leaving a lasting bright finish
• Service flow range 0.5 to 75 gpm (2-284 lpm)	• Service flow range 1.5 to 150 gpm (5.7-568 lpm)	• Service flow range 3.5 to 350 gpm (13-1,325 lpm)
• Meter accuracy ±5%	• Meter accuracy ±5%	• Meter accuracy ±5%
• Reliable and proven turbine design	• Reliable and proven turbine design	• Reliable and proven turbine design
• 15-foot cable included	• 15-foot cable included	• 15-foot cable included
• 1.5" Male x Female NPT or BSPT connections	• 2" Male x Female NPT or BSPT connection	• 3" Male x Female NPT or BSPT connection

NSF®

Certified to NSF/ANSI/CAN 61 and NSF/ANSI 372.

Inline Flow Meters NPT or BSPT

WS1.5 Meter Assembly Order No: V3040-15 or V3040BSPT-15	WS2 Meter Assembly Order No: V3094-15 or V3094BSPT-15	WS3 Meter Assembly Order No: V3095-15 or V3095BSPT-15
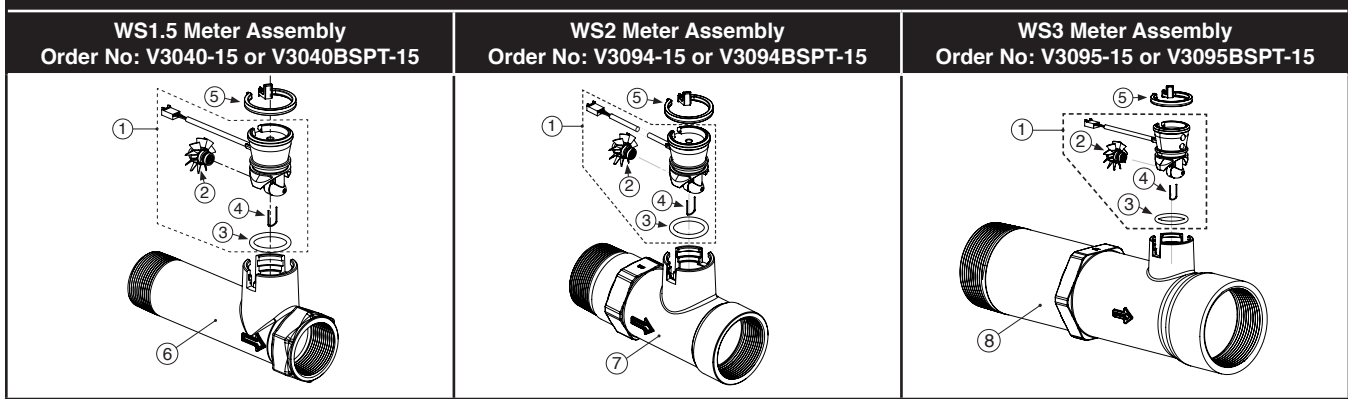
Drawing No.	Order No.	Description	Quantity
		Common Parts	
1	V3221	WS Remote Meter Asy 15 Ft Cord (includes V3118-03, V3501 and V3105)	1
2	V3118-03	WS1.5/2 Turbine Asy	1
3	V3105	O-Ring 215	1
4	V3501	WS1.5/2 Turbine Clip	1
5	V3632	WS1.5/2/3 Meter Retaining Clip	1
		WS1.5 Meter Assembly Parts	
6	V3401-04	WS1.5 Meter Housing MxF NPT	1
	V3401BSPT-04	WS1.5 Meter Housing MxF BSPT	
Not Shown	V3437	WS1.5 Flow Straightener (located inside meter housing)	1
		WS2 Meter Assembly Parts	
7	V3754-01	WS2 Meter NPT MxF Housing	1
	V3754BSPT-01	WS2 Meter BSPT MxF Housing	
Not Shown	V3488	WS2 Flow Straightener (located inside meter housing)	1
		WS3 Meter Assembly Parts	
8	V3844-01	WS3 Meter NPT MxF Housing	1
	V3844BSPT-01	WS3 Meter BSPT MxF 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 V3094-15 WS2 Meter NPT Assembly can be accomplished using 2" NPT pipe and fittings. For V3094BSPT-15 WS2 Meter BSPT Assembly use 2" BSPT pipe and fittings.
Installation of the V3095-15 WS3 Meter NPT Assembly can be accomplished using 3" NPT pipe and fittings. For V3095BSPT-15 WS3 Meter BSPT Assembly use 3" BSPT pipe and fittings.

WHEN INSTALLING THE METER, YOU MUST LUBRICATE THE INTERNAL BORE OF THE METER HOUSING AND THE O-RING OF THE ADAPTER. MAKE SURE THE ARROW ON THE METER BODY IS GOING THE SAME DIRECTION AS THE WATER FLOW. THE METER CAN BE INSTALLED IN HORIZONTAL OR UPWARD WATER FLOW VERTICAL APPLICATIONS. HYDROCARBONS SUCH AS VASELINE®, PETROLEUM JELLY, KEROSENE, BENZENE, GASOLINE, ETC., WILL DAMAGE PRODUCTS THAT CONTAIN O-RINGS OR PLASTIC COMPONENTS. EXPOSURE TO SUCH HYDROCARBONS MAY CAUSE THE PRODUCTS TO LEAK. DO NOT USE CLACK CONTROL VALVE PRODUCT(S) ON WATER SUPPLIES THAT CONTAIN HYDROCARBONS SUCH AS KEROSENE, BENZENE, GASOLINE, ETC.
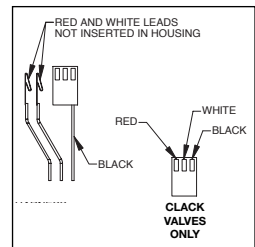
THIS WATER METER SHOULD NOT BE USED AS THE PRIMARY MONITORING DEVICE FOR CRITICAL OR HEALTH EFFECT APPLICATIONS.
OPERATING PRESSURES: 20 PSI MINIMUM - 125 PSI MAXIMUM (1.4 - 8.6 bar)
OPERATING TEMPERATURE 40°F MINIMUM - 110°F MAXIMUM (4° - 43°C)

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

Programming	
WS1.5	Select 1.5 in the "FL" programming parameter for the correct meter pulse reading
WS2.0 or WS2H	Select 2.0 in the "FL" or "Set Meter Type" programming parameter for the correct meter pulse reading
WS3.0	Select 3.0 in the "Set Meter Type" programming parameter for the correct meter pulse reading

Measurement	Imperial	Metric
Meter Pulses		
1.5 Inline	37 Pulses/ Gallon	9.8 Pulses/Liter
2.0 Inline	20 Pulses/ Gallon	5.3 Pulses/Liter
3.0 Inline	8 Pulses/ Gallon	2.1 Pulses/Liter
Meter Accuracy		
1.5 Inline	0.50 – 75 gpm ± 5%	1.90 – 284 lpm ± 5%
2.0 Inline	1.50 – 150 gpm ± 5%	5.68 – 568 lpm ± 5%
3.0 Inline	3.50 – 350 gpm ± 5%	13.25 – 1325 lpm ± 5%
	Output Signal 0.4 Hz – 47.5 Hz NOTE: Not all flow monitors will register accurately at the specified specs of this meter. Contact your monitor manufacture for limitations.	
Pressure Drop		
1.5 Inline	2.7 PSID @ 75 gpm	0.19 BAR ΔP @ 284 lpm
2.0 Inline	3.6 PSID @ 150 gpm	0.25 BAR ΔP @ 568 lpm
3.0 Inline	7.3 PSID @ 350 gpm	0.50 BAR ΔP @ 1325 lpm