

Signet 3719 pH/ORP Wet-Tap Assembly

Features

- Electrode removal without process shutdown
- Space saving 45 mm (1.75 in.) short-stroke design
- Sealed pneumatic dampening for smooth and safe operation
- SafeLoc™: Cam- activated automatic locking mechanism
- Protects electrode sensing surface from breakage
- Suitable for mounting in any orientation
- Process threaded connection NPT or ISO
- Low profile clamp-on saddle fittings for convenient installation in ASTM pipe sizes 2½ to 12 in.

Description

The Signet 3719 pH/ORP Wet-Tap allows installation and removal of pH or ORP electrodes, even under process pressure, without the need for process shutdown during routine electrode maintenance and calibration. Automatic process isolation is achieved during electrode retraction with a double O-ring seal on a unique and compact

retraction assembly; no separate valve is required. A patented cam-activated automatic locking mechanism, SafeLoc™, and the short stroke design help to assure operator safety. The wet-tap unit can be mounted at any angle and can be used with the Signet DryLoc® Wet-Tap electrodes.

Applications

- Aquatic Animal Life Support Systems
- Recreational Water Monitoring
- Water & Wastewater Treatment
- Effluent Monitoring
- Neutralization Systems
- Sanitization Systems
- Pool and Spa Control

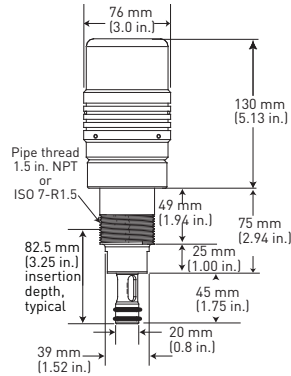
System Overview

Wet-Tap Installation			
Panel Mount Signet Instrument (sold separately)	4 to 20 mA Input Chart Recorder OR Programmable Logic Controller	Pipe, Tank or Wall Mount Signet Instrument (sold separately)	Other Instruments (customer supplied)
Signet 2750 or 2760 (sold separately)	Signet 2750 (sold separately)	Signet 2760 (sold separately)	
Signet 3719 Wet-Tap Assembly Signet 2756-WT, 2756-WTP 2757-WT, 2757-WTP (sold separately)			
GF PP Clamp-On Saddles for 3719 Wet-Tap or GF Tees and Fittings (sold separately) see model 3719 for more info			

Dimensions

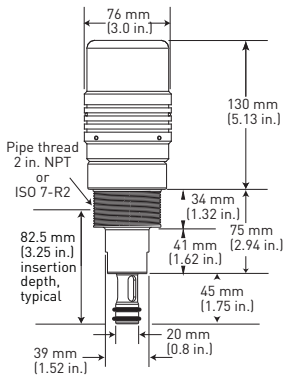
3719-1X

For pipe sizes up to 4 in.



3719-2X

For pipe sizes 6 to 12 in.



Model 3719

Ordering Information

- 1) Use a mounting saddle or a standard threaded part to mount Wet-Tap assembly.
- 2) ASTM fittings are available to order; metric fittings are customer supplied.
- 3) Use -11 or -12 versions for pipe sizes up to 4 in.
- 4) Use -21 or -22 versions for pipe sizes 6 to 12 inches.

Specifications

3719 Wet-Tap

General

Compatible DryLoc® Electrodes:

- 2756-WT, 2756-WT-1 (glass)
- 2756-WTP, 2756-WTP-1 (plastic)
- 2757-WT (glass)
- 2757-WTP (plastic)

Process Connection:

- 3719-11: NPT 1½ in.
- 3719-21: NPT 2 in.
- 3719-12: ISO 7/1 - R 1.5
- 3719-22: ISO 7/1 - R 2

Maximum Flow Velocity: 3 m/s (10 ft/s)

Materials

- Retraction Housing (Wetted): CPVC
- O-rings (Wetted): FPM
- Locking Shroud: PVC
- Hardware: 316 stainless steel

Low Profile Clamp-on Saddle Fittings

Materials

- Saddle body (Wetted): Polypropylene (Grade 8, ASTM D2565, 1-8, UV stabilized)
- Gasket (Wetted): FPM
- Saddle Hardware: 316 stainless steel
- Reinforcement Ring: 430 stainless steel
- Size range: 2½ to 12 in. (ASTM)

Max. Temperature/Pressure Rating

Operating Pressure:

100 psi (6.9 bar) maximum

Operating Temperature:

See Temperature/Pressure graphs for more information

Shipping Weight 1.2 kg 2.7 lb

Standards/Approvals

- Manufactured under ISO 9001 for Quality and ISO 14001 for Environmental Management

Ordering Information

Wet-Tap Part Number		
3-3719	Wet-Tap Assembly	
	Mounting Options - Choose one	
	-11	1½ inch NPT process threads for 2½ to 4 in. pipes
	-12	ISO 7/1-R 1.5 process threads for 2½ to 4 in. pipes
	-21	2 inch NPT process threads for 6 to 12 in. pipes
	-22	ISO 7/1-R 2 process threads for 6 to 12 in. pipes
3-3719	-11	Example Part Number

Mfr. Part No.	Code	Mfr. Part No.	Code
3-3719-11	159 000 804	3-3719-21	159 000 805
3-3719-12	159 000 806	3-3719-22	159 000 807

Specifications

2756-WT and 2757-WT pH/ORP

Wet-Tap Electrodes

General

Compatibility:

Signet 3719 Wet-Tap Assembly,
2750 sensor electronics or
2760 preamplifier

Operating Range:

- pH: 0 to 14 pH
- ORP: Application dependent

Connector (CPVC): DryLoc®

Temperature Sensor (pH):

PT1000 or 3K Balco for pH
Response time, τ : 438 secs.

Reference junctions: Porous PTFE

- Electrolyte: 3.5M KCl
- Elements: Ag/AgCl

Performance

- Efficiency: > 97% @ 25 °C (77 °F)

Response Time

- pH: < 5s for 95% of signal change
- ORP: Application dependent

Impedance (pH): < 150 M Ω @ 25 °C

Sodium Ion Error:

< 0.05 pH in 0.1 molar
Na⁺ ion at 12.8 pH

Wetted Materials

- Body: Glass or PAS (Poly Aryl Sulphone)
- Reference Junctions: Porous PTFE
- Sensing surface:
Glass membrane (pH)
Platinum (ORP)
- O-rings: FPM
- Connector: CPVC

Max. Temperature Rating

Operating Temperature:

0 °C to 85 °C (32 °F to 185 °F)

Storage Temperature:

0 °C to 85 °C (32 °F to 185 °F)

Mounting:

Any angle is acceptable. Use with
3719 wet-tap assembly for
mounting electrodes.

Shipping Weight 0.2 kg 0.4 lb

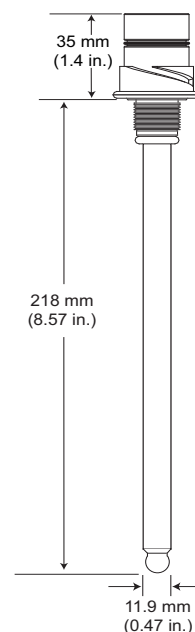
Standards and Approvals

- Manufactured under ISO 9001
for Quality

Dimensions

3-2756 Wet-Tap pH

3-2757 Wet-Tap ORP



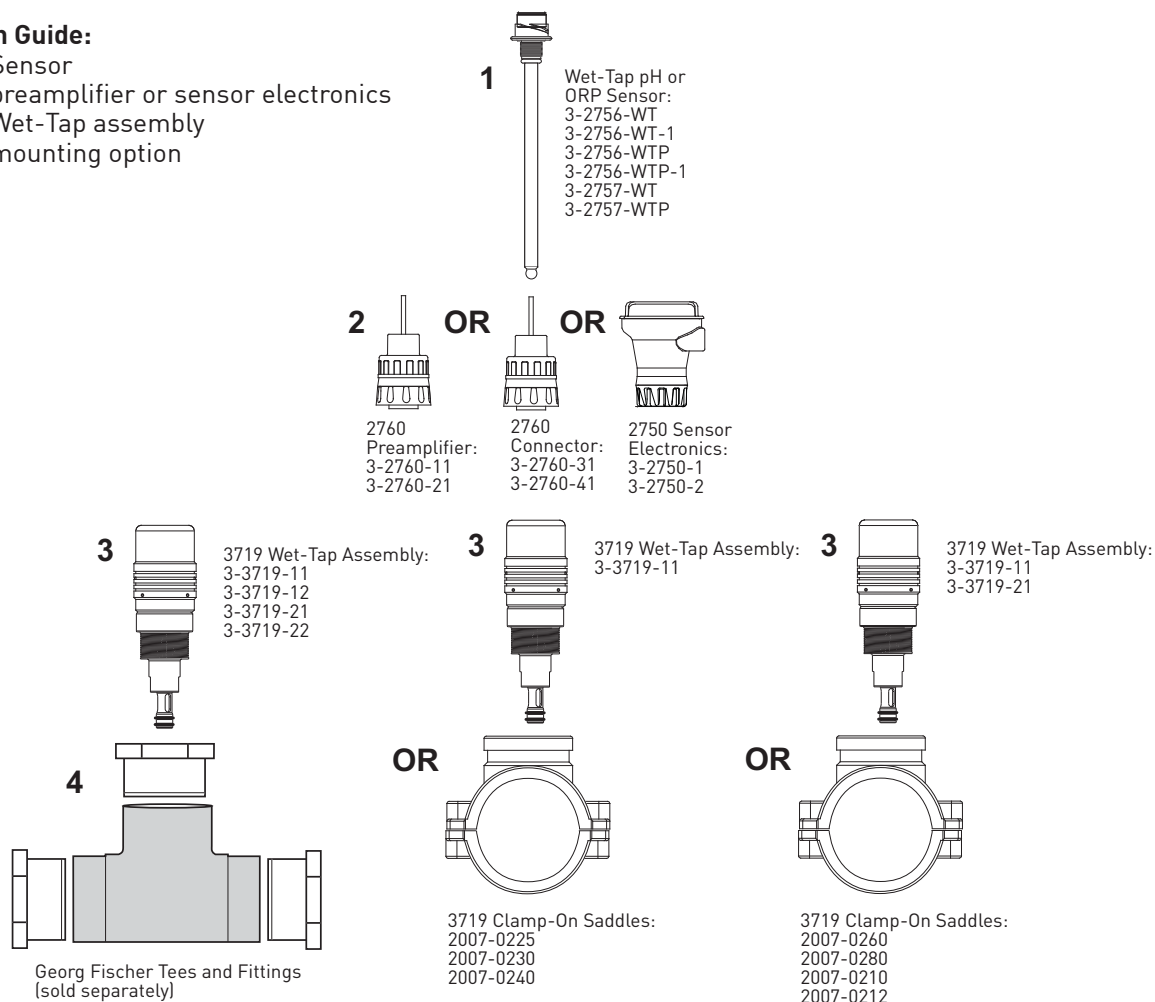
Product selection Guide:

Step 1 - Choose Sensor

Step 2 - Choose preamplifier or sensor electronics

Step 3 - Choose Wet-Tap assembly

Step 4 - Choose mounting option



Model 2756-2757**Ordering Notes**

- 1) pH and ORP electrodes require connection to model 2750-1 or -2 or 2760-X1.

Ordering Information

Wet-Tap Assembly Compatible Electrodes	
3-2756-WT	DryLoc® pH (glass) Electrode (Used with 2750 sensor electronics) - PT1000
3-2756-WT-1	DryLoc® pH (glass) Electrode (Used with 2760 Preamplifier) - 3 KΩ
3-2757-WT	DryLoc® ORP (glass) Electrode (Used with 2750 sensor electronics or 2760 preamplifier)
3-2756-WTP	DryLoc® pH (plastic) Electrode (Used with 2750 sensor electronics) - PT1000
3-2756-WTP-1	DryLoc® pH (plastic) Electrode (Used with 2760 Preamplifier) - 3 KΩ
3-2757-WTP	DryLoc® ORP (plastic) Electrode (Used with 2750 sensor electronics or 2760 preamplifier)

*The 2750 sensor electronics has a digital (S³L) output which is used with the 8900 Controller. It also has a 4 to 20 mA output for connections to PLC's, data recorders, etc.

**The 2760 preamplifier is used for connection directly to Signet 5700 Monitor or 8750 transmitter.

Mfr. Part No.	Code	Mfr. Part No.	Code
3-2756-WT	159 000 834	3-2756-WTP-1	159 001 384
3-2756-WT-1	159 001 383	3-2757-WT	159 000 835
3-2756-WTP	159 001 390	3-2757-WTP	159 001 391

Accessories and Replacement Parts

Mfr. Part No.	Code	Description
3-2700.395	159 001 605	Calibration kit: includes 3 PP cups, cup stand, 1 pint pH 4.01, 1 pint pH 7.00
3822-7115	159 001 606	20 gm bottle Quinhydrone for ORP calibration (must use pH 4.01 and/or pH 7.00 buffer solutions)
Mounting Saddles		
2007-0225	159 000 812	PP Clamp-on Saddle, 2.5 x 1.5 in. (ASTM, NPT)
2007-0230	159 000 813	PP Clamp-on Saddle, 3 x 1.5 in. (ASTM, NPT)
2007-0240	159 000 814	PP Clamp-on Saddle, 4 x 1.5 in. (ASTM, NPT)
2007-0260	159 000 815	PP Clamp-on Saddle, 6 x 2 in. (ASTM, NPT)
2007-0280	159 000 816	PP Clamp-on Saddle, 8 x 2 in. (ASTM, NPT)
2007-0210	159 000 817	PP Clamp-on Saddle, 10 x 2 in. (ASTM, NPT)
2007-0212	159 000 818	PP Clamp-on Saddle, 12 x 2 in. (ASTM, NPT)
Other		
1220-0114	159 000 854	3719 O-ring, FPM (spare part)
1224-0205	159 000 836	O-ring, EPR (EPDM)
3-3719.390	159 000 855	3719 Locking Shroud (spare part)
3-0700.390	198 864 403	pH buffer kit (1 each 4, 7, 10 pH buffer in powder form, makes 50 ml of each)
3822-7004	159 001 581	pH 4 buffer solution, 1 pint (473 ml) bottle
3822-7007	159 001 582	pH 7 buffer solution, 1 pint (473 ml) bottle
3822-7010	159 001 583	pH 10 buffer solution, 1 pint (473 ml) bottle

Please refer to
**Wiring, Installation,
and Accessories
sections for more
information.**

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