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**LRW Application Data Sheet**

**Customer Information**

Date: \_\_\_\_\_  
 Name: \_\_\_\_\_ Company: \_\_\_\_\_  
 Street address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Postal code: \_\_\_\_\_  
 Country: \_\_\_\_\_ Telephone: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 End user name and location: \_\_\_\_\_  
 Project name: \_\_\_\_\_

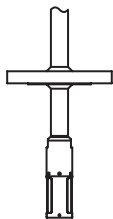
Please fill out the following fields to the best of your ability.

Describe the application (e.g. LACT unit, custody transfer, truck loading / unloading, etc.):

**Pipeline and installation type (please specify units)**

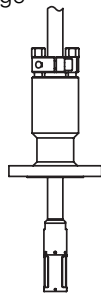
Pipeline Diameter: \_\_\_\_\_ Pipeline schedule: \_\_\_\_\_ ANSI rating:

Best for LACT units 3" and above



Fixed Insertion  
 1.25" NPT  
 Flange size:  
 Flange type:  
 Shaft Length\*:

Best for large diameter pipelines



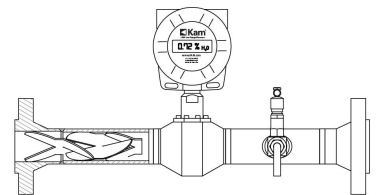
Flanged Insertable  
 Flange size:  
 Flange type:  
 Shaft Length\*:

Best for large diameter pipelines



2" Threaded Insertable  
 Shaft Length\*:

Best for 2" LACTs and capacitance probe replacement



Flow Through  
 Flange size:  
 Flange type:  
 Pipe diameter:  
 Face to face dimension:

\* Standard shaft lengths for insertable models are 24" and 30. See Shaft Length Calculator on page 3 of this document to determine appropriate length.

**Water Cut Range (%):**

**Additions:** Alternate Material (316SS Standard):

AC power adapter: Y N



**Flow Conditions** \* LACT units 6" and below please skip this page

Please note: proper mixing in accordance with API Chapter 8.2 is required for accurate LRW performance. In order for KAM to properly quote an LRW, please fill out all flow conditions fields to the best of your ability. Should pipeline mixing be required, the quote will include an appropriate solution to fulfill this requirement (SMS, SMP, or ML).

Is there gas in the process? Y N  
If Yes, is it of a consistent volume? Y N

	Minimum	Normal	Maximum	Units
Water cut range:				
Flow rate:				
Oil density or gravity range:				
Viscosity:				
Temperature:				
Operating pressure:				
Salinity:				

Max. pressure drop allowed (If applicable):

Flow Orientation:

Please list all devices which will interface with the LRW:

Installed under process above 110 PSI? Y  N   
(If yes, a KAM IT Insertion Tool will be required for installation and included in quote)

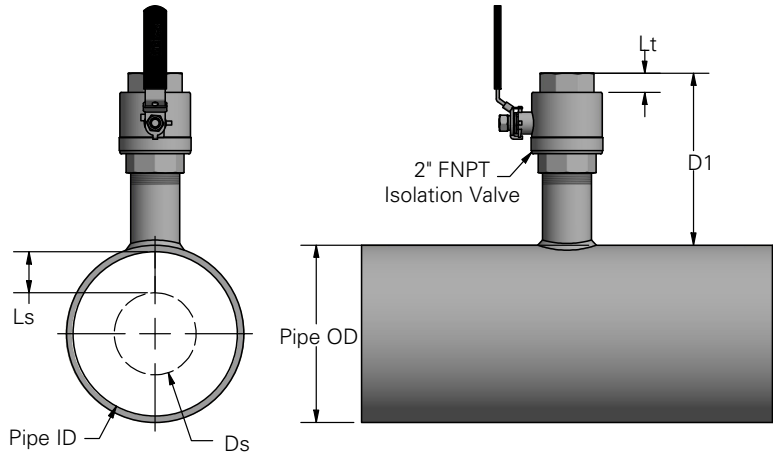
Additional Notes:

**Shaft Calculator**

Determine the minimum shaft length for proper insertion in the pipeline.  
 Off-the-shelf lengths are 20", 24" y 30" for insertable models. Fixed insertion models are 7" and 12".

**LRW 2"MNPT Insertable**

$$\begin{aligned}
 & \text{___ D1 (See drawing)} \\
 + & \text{___ Pipe Wall Thickness} \\
 + & \text{___ Ls (See drawing)} \\
 + & \text{___ Probe Factor (1.65)} \\
 + & \text{___ Seal housing Factor (7.04)} \\
 - & \text{___ Lt (See drawing)} \\
 = & \text{Total / min. shaft length}
 \end{aligned}$$

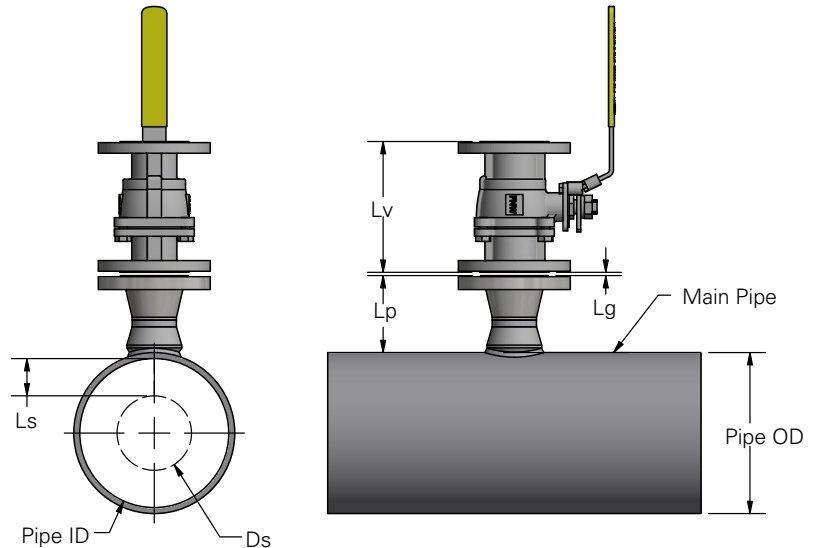


**Legend:**

- D1: Port Length + Valve Length
  - Lt: 2-NPT Thread Engagement (Range: 0.436 to 0.756")
  - Ls: Pipe ID x 0.25 (Sampling Area Length)
  - Ds: Pipe ID x 0.5 (Sampling Diameter)
- For NPT, thread engagement needs to be considered in length measurement.

**LRW Flanged Insertable**

$$\begin{aligned}
 & \text{___ Lp (See drawing)} \\
 + & \text{___ Lv (See drawing)} \\
 + & \text{___ Lg x 2 (See drawing)} \\
 + & \text{___ Pipe Wall Thickness} \\
 + & \text{___ Ls (See drawing)} \\
 + & \text{___ LRW Factor (See below)} \\
 + & \text{___ Seal Housing Factor (7.54")} \\
 = & \text{Total / min. shaft length}
 \end{aligned}$$



**Legend:**

- Lp: Port Length
  - Lv: Valve Length
  - Lg: Gasket Width (Typical 0.175")
  - Ls: Pipe ID x 0.25 (Sampling Area Length)
  - Ds: Pipe ID x 0.5 (Sampling Diameter)
- \*For 4" Connection Contact Kam

LRW Factors		
Class Rating	2' Size	3' Size
150#	1.00'	1.20'
300#	1.12'	1.37'
600#	1.50'	1.75'
900#	2.00'	2.00'

Typical Valve Lengths (Lv)		
Class Rating	2' Valve	3' Valve
150#	7.00'	8.00'
300#	8.50'	11.12'
600#	11.0'	14.00'
900#	14.50'	15.25'