



KAM Controls
 3939 Ann Arbor Drive
 Houston, Texas 77063
 T: +1 713 784 0000
 F: +1 713 784 0001
 www.KAM.com

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: _____ Project deadline: _____

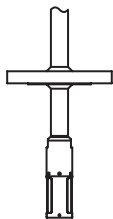
Please fill out the following fields to the best of your ability.

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

Pipeline and installation type (please specify units)

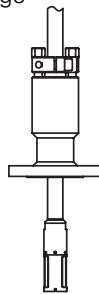
Pipeline Diameter: _____ Pipeline schedule: _____ ANSI rating:

Best for LACT units 3" and above



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

Best for large diameter pipelines



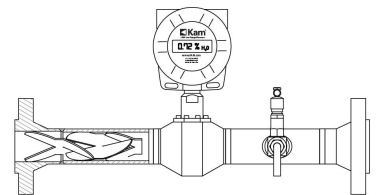
Flanged Insertable
 Flange size:
 Flange type:
 Shaft Length*:

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)

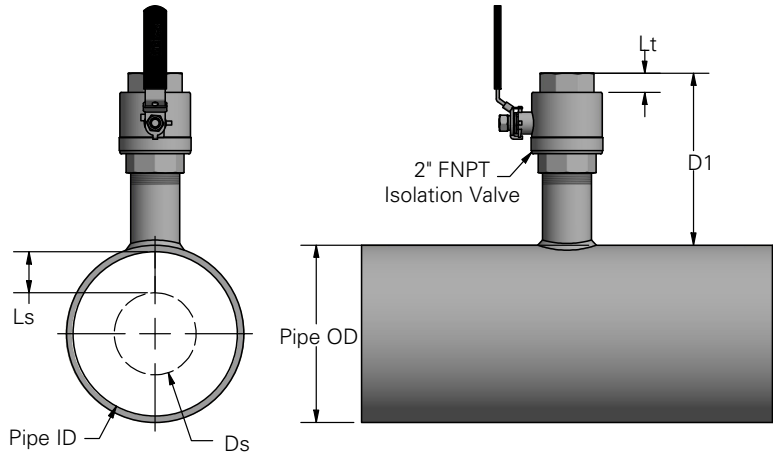
Additional Notes:

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

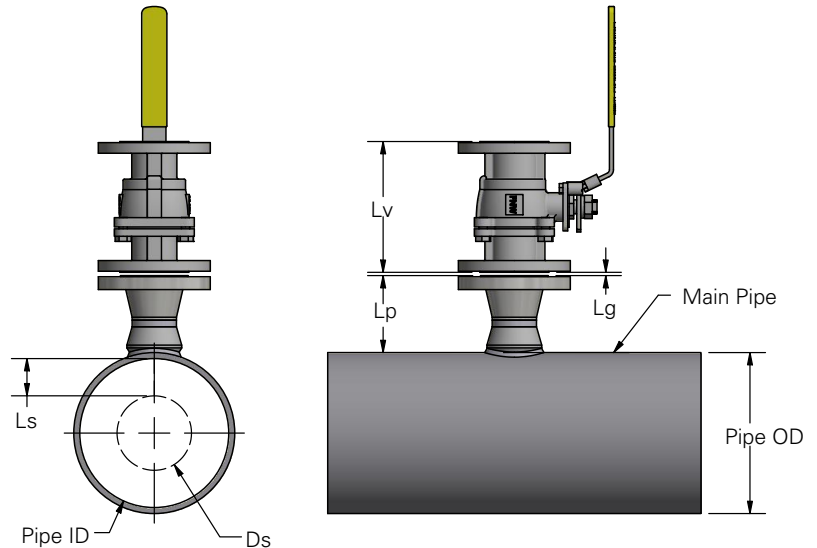
$$\begin{aligned}
 & \text{___ D1 (See drawing)} \\
 + & \text{___ Pipe Wall Thickness} \\
 + & \text{___ Ls (See drawing)} \\
 + & \text{___ Probe Factor (1.65)} \\
 + & \text{___ Seal housing Factor (7.04)} \\
 - & \text{___ Lt (See drawing)} \\
 = & \text{Total / min. shaft length}
 \end{aligned}$$



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'