



KAM Controls
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OWD Application Data Sheet

Customer Information

Date: _____

Name: _____ Company: _____

Street address: _____

City: _____ State: _____ Postal code: _____

Country: _____ Telephone: _____

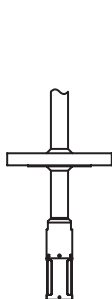
Email: _____

End user name and location: _____

Project name: _____ Project deadline: _____

Pipeline and installation type (please specify units)

Pipeline Diameter: _____ Pipeline schedule: _____ ANSI rating: _____

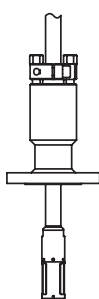


Fixed Insertion ☐

Flange size:

Flange type:

Shaft Length*:



Flanged Insertable ☐

Flange size:

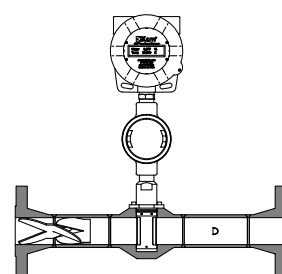
Flange type:

Shaft Length*:



2" Threaded Insertable ☐

Shaft Length*:



Flow Through ☐

Flange size:

Flange type:

* See Shaft Length Calculator on page 3 of this document to determine appropriate length.

Water Cut Range (%):

Additions:

Wetted parts material:

High temp: Y ☐ N ☐
(fluid above 300F / 149C)

HART protocol: Y ☐ N ☐

Local display: Y ☐ N ☐

AC power adapter: Y ☐ N ☐

Density pass through: Y ☐ N ☐

Temp pass through: Y ☐ N ☐



OWD Application Data Sheet continued

Flow Conditions

Please note: proper mixing in accordance with API Chapter 8.2 is required for accurate OWD performance. In order for KAM to properly quote an OWD, 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): _____

Pipe flow:

Please list all devices which will interface with the OWD:

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.

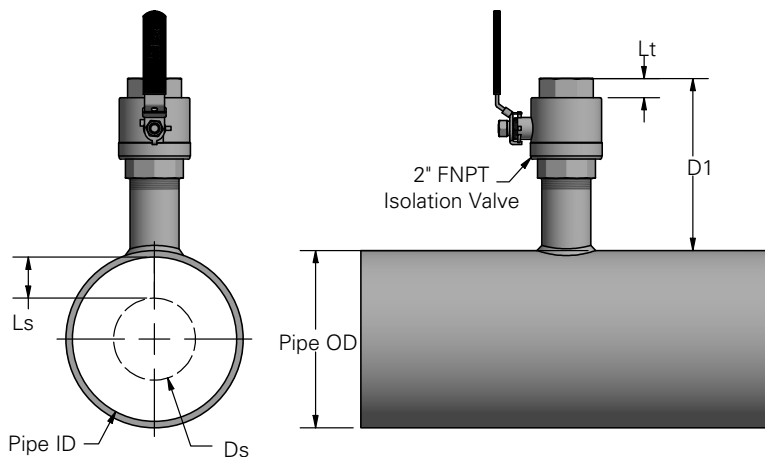
Off-the-shelf lengths are 20", 24", 30", 36" for insertable models. Fixed insertion models are 7" and 12".

OWD 2"MNPT Insertable

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

OWD High Range Factors	
Description	Length
2" Probe	1.65
Seal Housing	7.04

OWD Low Range Factors	
Description	Length
4" Probe	4.95
Seal Housing	6.99



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)

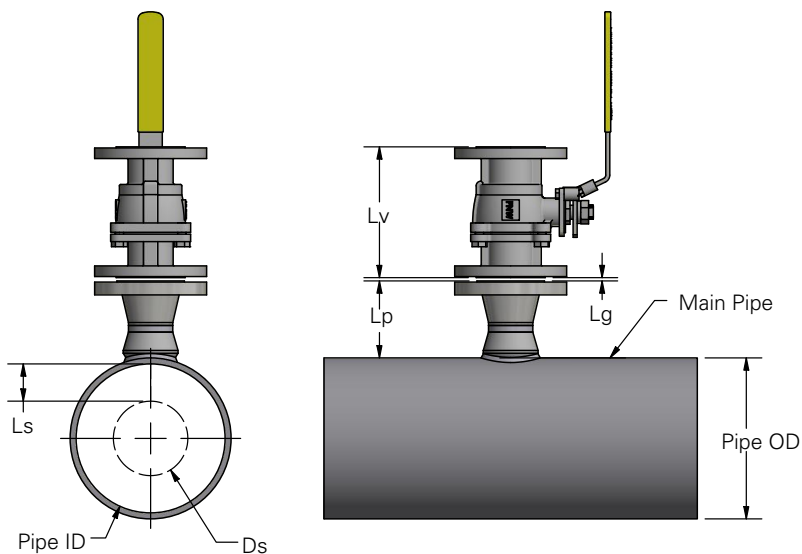
For NPT, thread engagement needs to be considered in length measurement.

OWD Flanged Insertable

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

Seal Housing Factors	
Description	Length
OWD High Range	7.54"
OWD Low Range	10.84"

OWD Factor		
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"



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

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"