Kam®

KAM® OOD Application Data sheet

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

Customer Information

Date:

Name: _____   Company: _____

Street Address: _____

City: _____   State: _____   Postal code: _____

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. saltwater disposal, leak detection, coolant line, etc.): _____

Laboratory test method used to correlate with the KAM® OOD: _____

Target oil: □ Crude oil   □ Fuel oil   □ Lube oil   □ Diesel   □ Other (Specify): _____

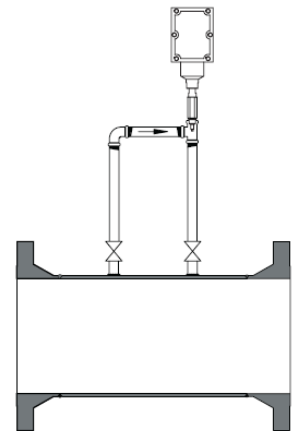## Pipeline and installation type (please specify units)

Pipeline Diameter: _____ Pipeline schedule: _____ ANSI Rating: _____
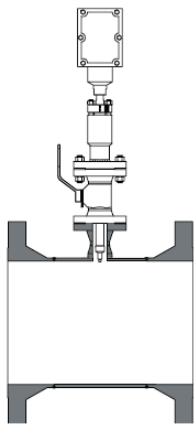
Flanged Insertable □
Flange size:
Flange type:
Shaft Length*:
Quantity req.___
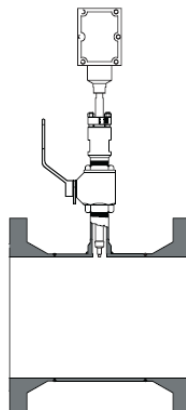
2″MNPT Insertable □
Shaft Length*:
Quantity req. ___

FT Flow Through □
MNPT:
Quantity req. ___

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

Wetted materials:

Additions:

Local Display: Yes □ No □   Marine coat: Yes □ No □
AC Power Adapter: Yes □ No □   **NACE:** Yes □ No □

Process Conditions

Please note: proper mixing is required for accurate OOD performance. In order for KAM to properly quote an OOD, 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).

	Minimum	Normal	Maximum	Units
PPM range				
Flow rate				
Oil density or gravity range*				
Oil viscosity*				
Operating temperature				
Operating pressure**				
Salinity				
Ambient temperature				

*At operating temperature
** If above 110 PSI, a KAM IT Insertion Tool will be required for installation and included in quote

Required accuracy (min. 5ppm): _____

Pipe flow: Vertical up □   Vertical down □   Horizontal □

Will the meter's electronics be exposed directly to sunlight or high temperatures? Yes □   No □
(If yes, a KAM Sunshade may be required and included in quote)

Additional Details

Commissioning & startup assistance: Yes □ No □

If yes, please specify: _____

FAT test required: Yes □ No □

Certifications required (if applicable): _____

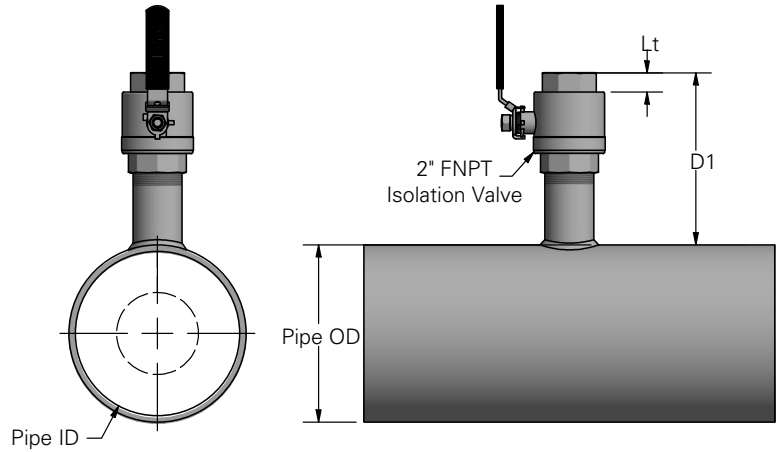**Comments / Additional Information:**

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".

OOD 2"MNPT Insertable

    ____D1 (See drawing)
+ ____ Pipe Wall Thickness
+ ____ OOD Factor (3.1")
+ ____ Seal Housing Factor (5.95")
− ____ Lt (See drawing)
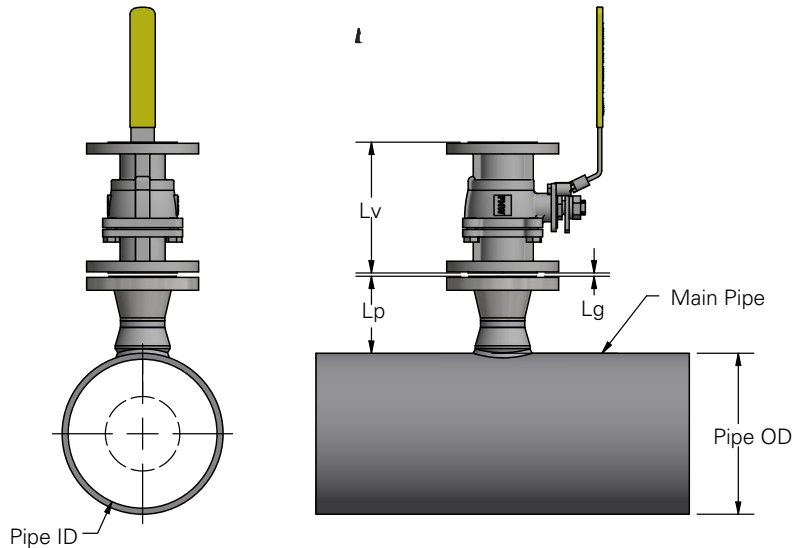
=   Total / min. shaft length

Leyend:
D1: Port Length + Valve Length
Lt: 2-NPT Thread Engaement (Range: 0.436" to 0.756")

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

OOD Flanged Insertable

    ____Lp (See drawing)
+ ____ Lv (See drawing)
+ ____ Lg x 2 (See drawing)
+ ____ Pipe Wall Thickness
+ ____ OOD Factor (See below)
+ ____ Seal Housing Factor (6.45")

=   Total / min. shaft length

Leyend:
Lp: Port Length
Lv: Valve Length
Lg: Gasket Width (Typical 0.175")

OOD Factor		
Class Rating	2" Size	3" Size
150#	2.30"	2.50"
300#	2.42"	2.67"
600#	2.80"	3.05"
900#	3.30"	3.30"

OOD Factor includes a 1" insertion distance
from the Pipe ID
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"