KAM® OID/CHA 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 complete the following fields to the best of your ability.

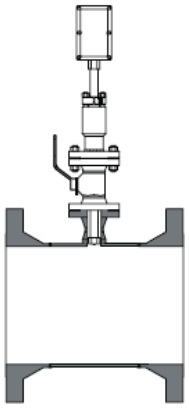
Describe the application (e.g. Batching, quality control, interface detection, turbidity/haze detection):

_____

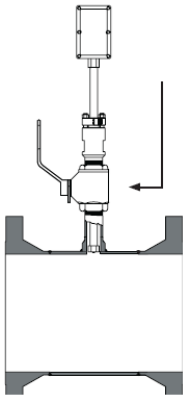
Types of hydrocarbon: ☐ Gasoline multiple grades ☐ Diesel multiple grades ☐ Kerosene ☐ Jet fuel
☐ Rouge or other contaminants ☐ Other (specify):_____

Pipeline and installation type (please specify units)

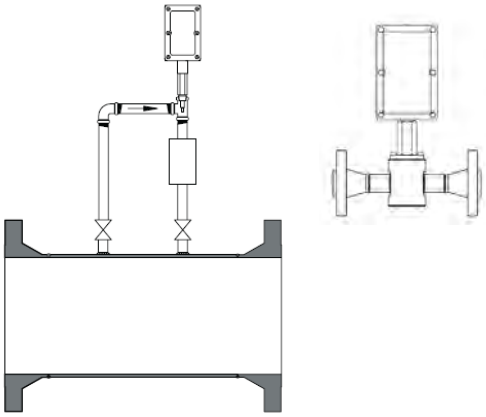
Pipeline diameter: _____ Pipeline schedule: _____ ANSI rating: Please select



Flanged Insertable ☐
Flange size: Please select
Flange type: Please select
Shaft length*: _____
Quantity req.: ___



2"MNPT Insertable ☐
Shaft length*: _____
Quantity req.: ___



MNPT Flow Through (OID) ☐
Flanged Flow Through (CHA) ☐
Flange size: 1"
Flange type: Please select
Quantity req.: ___

* See Shaft Length Calculator on pages 3-4 of this document to determine appropiate length

Wetted parts: ☐ 316SS ☐ Other (Specify): _____

Additions:

Marine coating: Y ☐ N ☐ NACE: Y ☐ N ☐ AC Power Adapter: Y ☐ N ☐

Process Conditions

	Minimum	Normal	Maximum	Units
Process temperature				
Process pressure				
Ambient temperature				

Pipe flow: Select

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

Will the meter's electronics be exposed directly to sunlight or high temperatures? Y ☐ N ☐
(If yes, a KAM Sunshade may be required and included in quote)

Additional Details

Do you require commissioning & startup assistance? Y ☐ N ☐

If yes, please specify: _____

FAT test required: Y ☐ N ☐

Certifications required (if applicable): _____

Corrosion specifications (if applicable): _____

Comments / Additional Information:

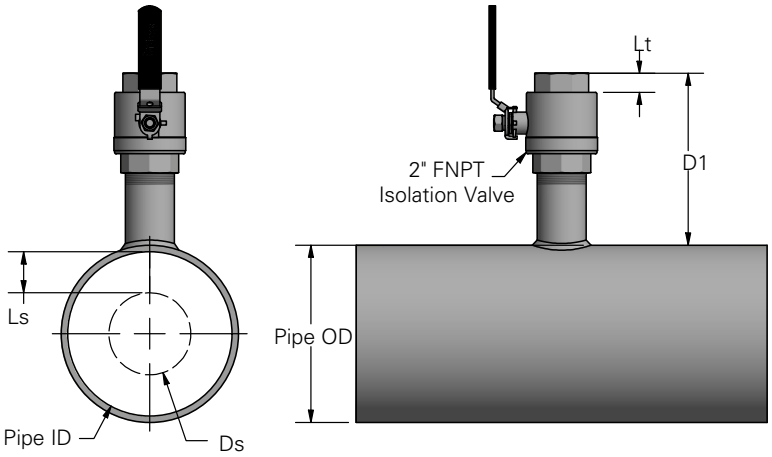
Shaft Calculator

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".

CHA 2"MNPT Insertable

0 D1 (See drawing)
+ 0 Pipe Wall Thickness
+ 0 Ls (See drawing)
+ 2.3 CHA Factor (2.3")
+ 7.04 Seal Housing Factor (7.04")
− 0 Lt (See drawing)

= 9.34 Total / min. shaft length



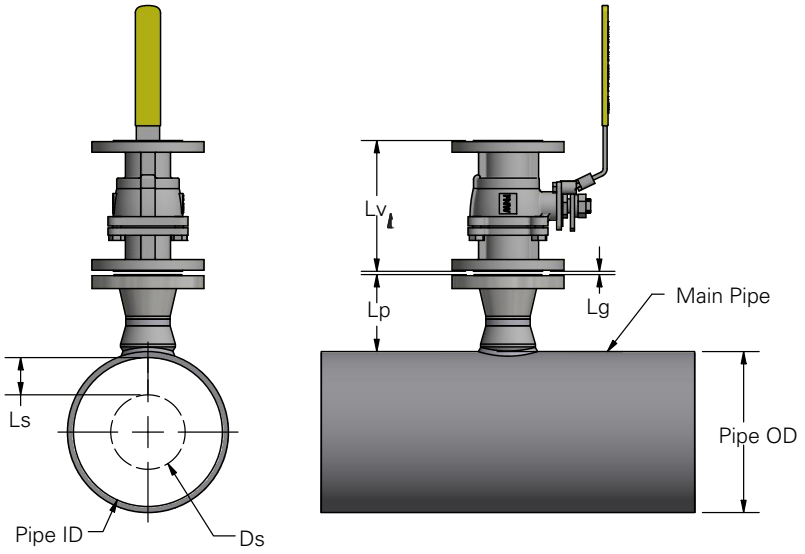
Leyend:
D1: Port Length + Valve Length
Lt: 2-NPT Thread Engagement (Range: 0.436 to 0.756")
Ls: Pipe ID x 0.25 (Sampling Area Length)
Ds: Pipe ID x 0.5 (Sampling Diameter)

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

CHA Flanged Insertable

0 Lp (See drawing)
+ 0 Lv (See drawing)
+ 0 Lg x 2 (See drawing)
+ 0 Pipe Wall Thickness
+ 0 Ls (See drawing)
+ 0 CHA Factor (See below)
+ 7.54 Seal Housing Factor (7.54")

= 7.54 Total / min. shaft length



Leyend:
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

CHA Factor		
Class Rating	2" Size	3" Size
150#	1.55"	1.75"
300#	1.67"	1.92"
600#	2.05"	2.30"
900#	2.55"	2.55"

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"

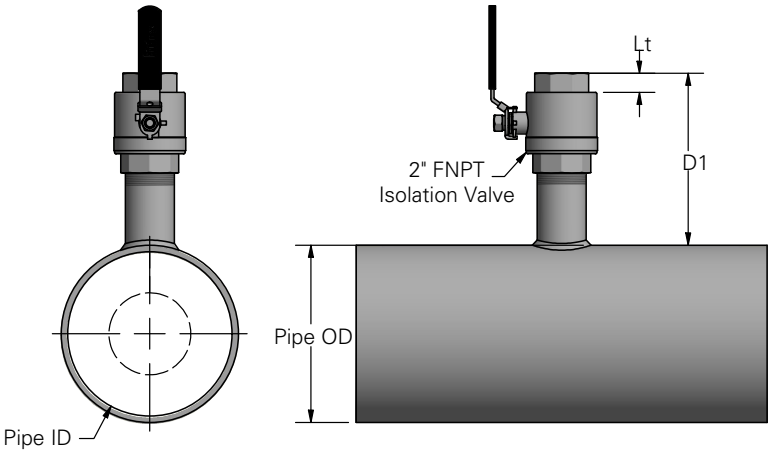
Shaft Calculator

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".

OID 2"MNPT Insertable

0 D1 (See drawing)
+ 0 Pipe Wall Thickness
+ 1.85 OID Factor (1.85")
+ 5.95 Seal Housing Length (5.95")
– 0 Lt (See drawing)

= 7.800(Total / min. shaft length

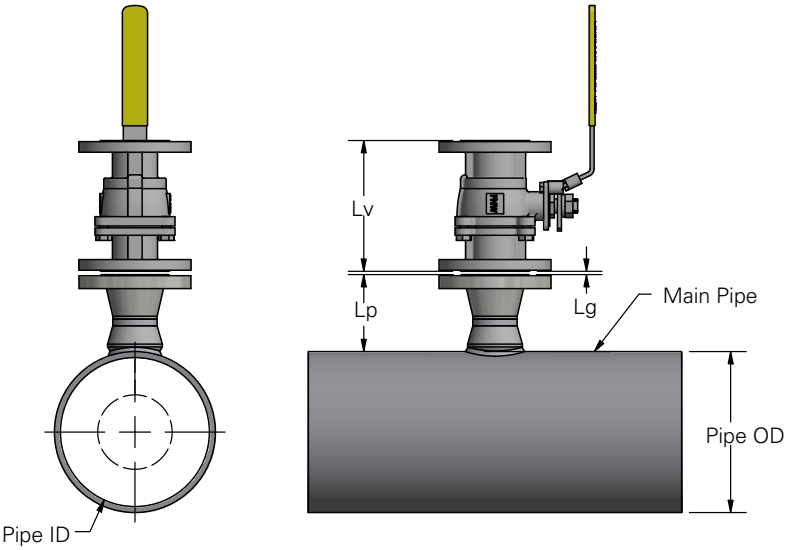


Leyend:
D1: Port Length + Valve Length
Lt: 2-NPT Thread Engagement (Range: 0.436 to 0.756")
*For NPT, thread engagement needs to be considered in length measurement.

OID Flanged Insertable

0 Lp (See drawing)
+ 0 Lv (See drawing)
+ 0 Lg x 2 (See drawing)
+ 0 Pipe Wall Thickness
+ 0 OID Factor (See below)
+ 6.45 Seal Housing Factor (6.45")

= 6.45 Total / min. shaft length



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

OID Factor		
Class Rating	2" Size	3" Size
150#	1.10"	1.30"
300#	1.22"	1.47"
600#	1.60"	1.85"
900#	2.10"	2.10"

OID Factor Includes a 1/4" recess 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"