

CLARIFICATION NO. 03

TENDER NO. PROC-FC/CB/PROD/UCH-II-3128/2017 SUPPLY OF LEVEL GUAGES & LEVEL TRANSMITTERS, PCV/FCV SPARES & DIFFERENTIAL PRESSURE TRANSMITTERS

Clarifications and response to clarifications is as follow:-

Clarification:-Placement of level indicator on the tank

Process connections top to bottom?

or

Process connections side to side?

Response to Clarification:- 'Side to Side with top plugged and bottom flanged'

Clarification:-Total connection length? (centre – centre)

Response to Clarification:- 14"

Clarification:-What type of process connections?

Flanges?

Threads?

Others? What kind? Please add sketch.

Response to Clarification:- Flanged (Sketch attached for reference)

Clarification:-If flange connections please indicate rating EN1092-1 or ANSI B16.5?

Please indicate flange size and face?

Response to Clarification:- 2"-ANSI, 600-RF

Clarification:-Any Vent & Drain connections? Please specify.

Response to Clarification:- Vent connection 1/2" NPT, Drain connection 1/2" NPT

Clarification:-Measuring scales? If yes what graduation?

Response to Clarification:- 14" with 1/4" division

Clarification:-Magnetic switches? If yes how many?

Response to Clarification:- N.A

Clarification:-Transmitter? If yes voltage or current output?

Response to Clarification:- Yes, supply voltage 24 VDC, output signal 4-20mA

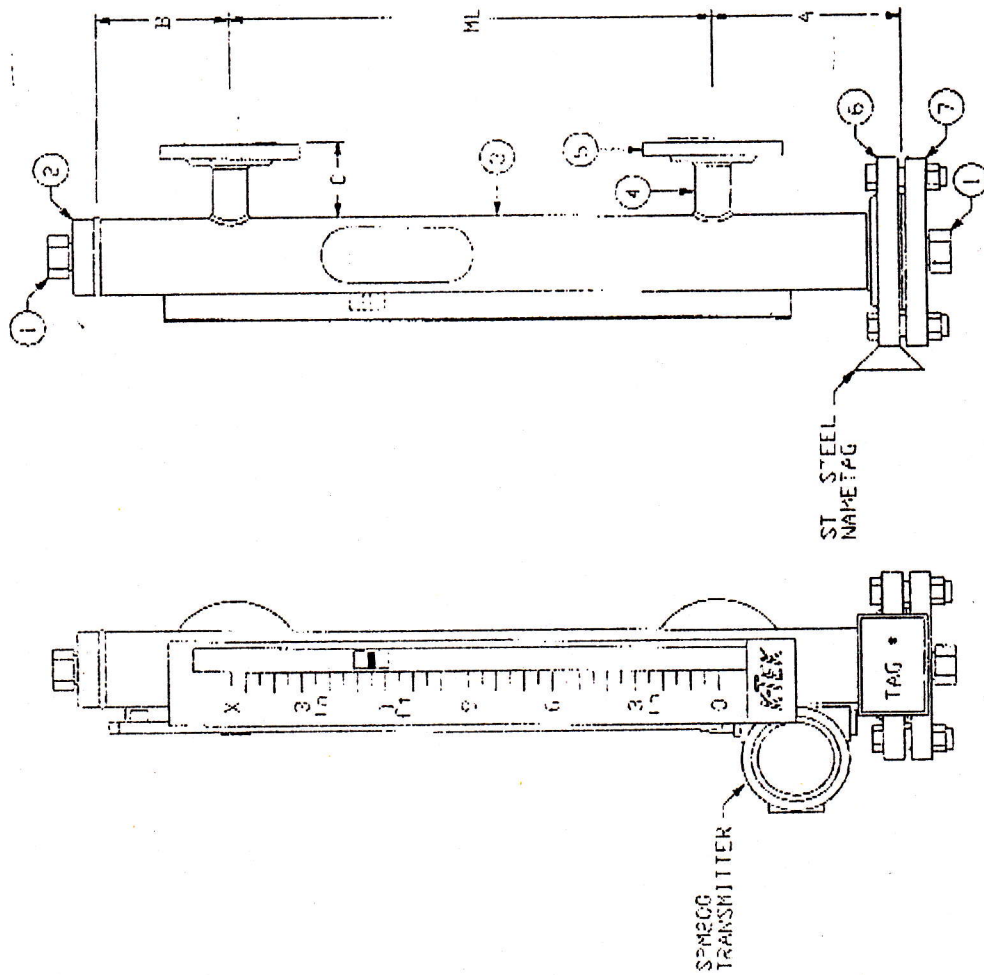
Clarification:-Is your installation in ATEX/IECEx area (Explosion proof area)? If yes Ex ia or Ex d?

Response to Clarification:- Ex'd IP 65 rating.

Clarification:- Any other particulars, specials and options?
Any special certifications or/and test procedures?

Response to Clarification:- Data sheets of required Level transmitter and level gauge
(Item no. 1 and Item no.2 Group A) are attached for reference

TRANSMITTER TAG NUMBER	LEVEL GAUGE TAG NUMBER	SERIAL NUMBER	S.G.	PRESS. (PSIG) OPER. / MAX	TEMP. (deg F) OPER. / MAX	ML (Inches)
LT-2223	LG-2223	96-07-992-02	0.80	800/900	77/144	14.0
LT-2224	LG-2224	96-07-992-03	0.80	800/900	77/144	14.0
LT-2229	LG-2229	96-07-992-04	0.80	800/900	77/144	14.0
LT-2230	LG-2230	96-07-992-05	0.80	800/900	77/144	14.0
LT-2235	LG-2235	96-07-992-06	0.80	800/900	77/144	14.0
LT-2236	LG-2236	96-07-992-07	0.80	800/900	77/144	14.0
MODEL NUMBER						
SR26/ML						
A (Inches) 10.0						
B (Inches) 6.5						
C (Inches) 4.5						
① 1/2" 3000# 316 SS HEX HEAD PLUG						
② 1/2" SCH 10 316 SS FLAT PIPE CAP						
③ 1/2" SCH 10 316 SS PIPE						
④ 1" SCH 80 316 SS PIPE						
⑤ 2" 600# 316 SS RF BLIND FLANGE						
⑥ 2 1/2" 600# 315 SS RF SLIP ON FLANGE						
⑦ 2 1/2" 600# 316 SS RF BLIND FLANGE						



** AS BUILT **

CERTIFIED BY: *Jeffrey Z. Blum*
 DATE: 11/22/96

CUSTOMER NAME: PROCON INSTRUMENTATION
 PROJECT: UCH GAS PIPE-LINE PROJ. #016C 1846
 CUSTOMER ORDER NO: 5020
 DRAWN BY: EBG
 DATE: 7-25-96
 DRAWING NO.: 96-07-992-2 REV. 0

K-TEK CORPORATION
 18321 SWAMP ROAD
 PRAIRIEVILLE, LA 70769

NOTE: 1 SCALE INDICATION SHALL BE IN FEET/INCHES WITH A SHUTTLE INDICATOR IN A GLASS TUBE.
 2 ROUND ONE SP/200/BC/LDC/HRT/ML TRANSMITTER ON EACH LEVEL GAUGE
 3 MATERIAL TEST REPORTS SHALL BE PROVIDED
 4 EACH LEVEL GAUGE SHALL BE HYDROTESTED AT 1 1/2 TIMES THE MAXIMUM PRESSURE STATED.
 5 MATERIALS SHALL CONFORM TO NACE MR-01-75 STANDARD.

1 GENERAL INFORMATION:

2 Tag Number:	LG-2223	LG-2224
3 Service Description:	GAS STATION FILTER SEPARATOR	GAS STATION FILTER SEPARATOR
4 Location:	Filter Separator	Filter Separator
5 Name; Vessel; Equipment No:	T-2202A DA2N	T-2202A DA2N
6 Piping Class:		
7 P & ID No:	DWG-00-BP-2201	DWG-00-BP-2201
8 R.F.Q. No:	J-0022 10034	J-0022 10034
9 Purchase Order No:		
10 Item No:	2	3
11 Manufacturer:	K-TEK	K-TEK
12 Vendor:	PROCON	PROCON
13 Model No:	KM26S	KM26S
14 Serial No:	96-07-992-02	96-07-992-03
15 Electrical Area Classification:	CL 1 ZN 1 RP IIA	CL 1 ZN 1 RP IIA
16 Electrical Certification:	SAA Ex'd	SAA Ex'd

17 PROCESS SERVICE CONDITIONS:

17 Upper Fluid Type:	Upper Fluid State:	H.C.	Vapour	H.C.	Vapour
18 Middle Fluid Type:	Middle Fluid State:				
19 Lower Fluid Type:	Lower Fluid State:	H.C.	Liquid	H.C.	Liquid
20 Density:	Units:	5.07	lbs/ft3	5.07	lbs/ft3
21 Density:	Upper: Middle: Lower:		50		
22 Temperature:	Maximum: Units:	144	°F	144	°F
23 Temperature:	Minimum: Normal:	50	77	50	77
24 Pressure:	Maximum: Units:	900	psig	900	psig
25 Pressure:	Minimum: Normal:	570	800	570	800

26 LEVEL GAUGE TYPE:

26 Magnetic/Reflex/Transparent:	Magnetic	Magnetic
27 Indicator Type:	DIRECT	DIRECT

28 CONSTRUCTION - BODY / CAGE:

29 Body/Tube Material:	316SS	316SS
30 Body/Tube Rating: Pressure: Temperature:	4500PSIG 1000 F	4500PSIG 1000 F
31 Magnetic Follower (Float) Material:	316SS	316SS
32 Connection Type: Upper: Lower:	ANSI Flg ANSI Flg	ANSI Flg ANSI Flg
33 Upper Connection: Size: Location:	2" 600# RF Side	2" 600# RF Side
34 Middle Connection: Size: Location:	2" 600# RF Side	2" 600# RF Side
35 Lower Connection: Size: Location:	2" 600# RF Side	2" 600# RF Side
36 Distance between Connection Centres: inches	14"	14"
37 Cooling Extension:	NA	NA
38 Vent Connection: Size:	Top 1/2" NPTM	Top 1/2" NPT
39 Drain Connection: Size:	Bottom 1/2" NPTM	Bottom 1/2" NPT

42 CONSTRUCTION - GAUGE COCKS:

43 Type: Offset: Straight:	NA NA	NA NA
44 Connection: Size: Location:	NA NA	NA NA
45 Body Rating: Pressure: Temperature:	NA NA	NA NA
46 Material: Body: Bonnet:	NA NA	NA NA
47 Trim Material	NA	NA
48 Vent Connection: Size:	NA NA	NA NA
49 Drain Connection: Size:	NA NA	NA NA
50 Options: Ball Checks Renewable Seats:	NA NA	NA NA

53 INSTRUMENT OPTIONS:

54 Gauge Illuminator:	Voltage:	NA	NA	NA	NA
55 External Jacket:	Mica Shield:	NA	NA	NA	NA
56 Non-Frost:	Calibrated Scale:	NA	0-14"	NA	0-14"
57 Level Transmitter No 1:	Tag No:	LT-2223		LT-2224	
58	Data Sheet No:	DS-00-JL-0022.02		DS-00-JL-0022.02	
59 Level Transmitter No 2:	Tag No:	NA		NA	
60	Data Sheet No:	NA		NA	

GENERAL NOTES:


- 1. The VENDOR shall provide all Instruments with a stainless steel tag plate stamped with the INSTRUMENT TAG No. in 5mm high characters permanently attached to the instrument with either stainless steel wire or screws.
- 2. All permanent instrument fixings shall be stainless steel.
- 3. The VENDOR shall provide level gauges conforming to the material requirements for sour gas service in accordance with NACE standard MR-01-75.

ISSUED FOR PURCHASE	19-Jul-96	AST	YU	AST
ISSUED FOR TENDER	10-May-96	AST		
ISSUED FOR PROCESS INFORMATION	10-May-96	AST		
REVISION DESCRIPTION	DATE	PREPARED	CHECKED	APPROVED
INSTRUMENT DATA SHEET LEVEL GAUGES MAGNETIC		Client: Oil & Gas Development Corp. Project: Uch Gas Pipeline Data Sheet No: DS-00-JL-0023.02 Job No: 1846 Revision: 0		



1 GENERAL INFORMATION:							
2	Tag Number:		LT-2223		LT-2224		
3	Service Description:		GAS STATION FILTER SEPARATOR		GAS STATION FILTER SEPARATOR		
4	Location:		Filter Separator		Filter Separator		
5	Line; Vessel; Equipment No:		T-2202A	DA2N	T-2202A	DA2N	
6	Piping Class:						
7	P & ID No:		DWG-00-BP-2201		DWG-00-BP-2201		
8	R.F.Q. No:	Purchase Order No:	J-0022	10034	J-0022	10034	
9	Item No:		2		3		
10	Manufacturer:		K-TEK		K-TEK		
11	Vendor:		PROCON		PROCON		
12	Model No:		SPM200		SPM200		
13	Serial No:		96-5710		96-5711		
14	Electrical Area Classification:		CL 1 ZN 1 GRP IIA		CL 1 ZN 1 GRP IIA		
15	Electrical Certification:		SAA Ex'd'		SAA Ex'd'		
16	PROCESS SERVICE CONDITIONS:						
17	Upper Fluid Type:	Upper Fluid State:	H.C.	Vapour	H.C.	Vapour	
18	Lower Fluid Type:	Lower Fluid State:	H.C.	Liquid	H.C.	Liquid	
19	Density:	Units:	lbs/ft3		lbs/ft3		
20	Density:	Upper:	Lower:	5.07	50	5.07	50
21	Temperature:	Maximum:	Units:	144	°F	144	°F
22	Temperature:	Minimum:	Normal:	50	77	50	77
23	Pressure:	Maximum:	Units:	900	psig	900	psig
24	Pressure:	Minimum:	Normal:	570	800	570	800
25							
26	CONSTRUCTION - BODY / CAGE:						
27	Body or Cage Material:		316SS		316SS		
28	Body Rating:		600 #		600 #		
29	Connection Type:	Upper:	Lower:	ANSI Flg.	ANSI Flg.	ANSI Flg.	ANSI Flg.
30	Upper Connection:	Size:	Location:	2"	Side	2"	Side
31	Lower Connection:	Size:	Location:	2"	Side	2"	Side
32	Distance between Connection Centr		inches		14"		14"
33	Case:	Mounting:	Type:	Aluminium	Ex'd'	Aluminium	Ex'd'
34	Rotatable Head:	Orientation:		Yes		Yes	
35	Cooling Extension:			NA		NA	
36	Vent Connection:	Size:		Yes	1/2" NPT	Yes	1/2" NPT
37	Drain Connection:	Size:		Yes	1/2" NPT	Yes	1/2" NPT
38	CONSTRUCTION - DISPLACER or FLOAT:						
39	Displacer Size:	mm	N/A		N/A		
40	Insertion Depth:	mm					
41	Displacer Extension:	mm					
42	Material:	Displacer:	Float:				
43	Material:	Spring:	Tube:				
44	Material of other Wetted Parts:						
45							
46	CONSTRUCTION - TRANSMITTER/CONTROLLER:						
47	Function:		Transmitter		Transmitter		
48	Control Modes:		NA		NA		
49	Level Range:		inches		14"		14"
50	Output Action:		Direct		Direct		
51	Accuracy:		+/- % Span		0.01		0.01
52							
53	Transmitter:	Supply:	Output Signal:	24 VDC	4-20mA	24 VDC	4-20mA
54	Enclosure Type:	IP Rating:		Ex'd'	65	Ex'd'	65
55	Entry:	Size:	Termination:	1/2" NPTM	Terminals	1/2" NPTM	Terminals
56	Connections:	Pneumatic:		NA		NA	
57	INSTRUMENT OPTIONS:						
58	'Smart' Electronics:	Protocol:		Yes	HART	Yes	HART
59	Level Gauge	Tag No:		LG-2223		LG-2224	
60		Data Sheet No:		DS-00-JL-0023.02		DS-00-JL-0023.02	

- GENERAL NOTES:** * = Information to be provided by VENDOR
- The VENDOR shall provide all instruments with a stainless steel tag plate stamped with the INSTRUMENT TAG No. in 5mm high characters permanently attached to the instrument with either stainless steel wire or screws.
 - All permanent instrument fixings shall be stainless steel.
 - All wetted parts shall conform to the material requirements for sour gas service in accordance with NACE standard MR-01-75.
 - The VENDOR shall offer a combined Level Gauge/ Transmitter for this application.

1	AS-BUILT	26-Jun-97	<i>AS</i>	<i>AS</i>	<i>AS</i>
0	ISSUED FOR PURCHASE	19-Jul-96	AST	YYU	AST
B	ISSUED FOR TENDER	13-May-96	AST	YYU	AST
A	ISSUED FOR PROCESS INFORMATION	13-May-96	AST		
Rev	REVISION DESCRIPTION	DATE	PREPARED	CHECKED	APPROVED
INSTRUMENT DATA SHEET LEVEL TRANSMITTERS (NON-CONTACT)		Client:	Oil & Gas Development Corp.		
		Project:	Uch Gas Pipeline		
		Data Sheet No:	DS-00-JL-0022.02		
		Job No:	1846	Revision:	1