

TECHNICAL SPECIFICATIONS

DP TRANSMITTER (For item no 00010)

SL NO	DESCRIPTION	REQUIREMENT	VENDOR'S COMMENT
	<u>SAPCODE-8140759113</u>		
1	Function	Transmit and Indicating	
2	Measuring Principle	Capacitance/Silicone Resonant/Piezoresistive	
3	Sensor type Comm Protocol	Diaphragm Type	
4	Comm Protocol	HART	
5	Electronic Housing	Epoxy coated/Die cast Aluminum	
6	Mounting	2"NB stanchion mounting	
7	Ex protection Requirement	EEx ia IIC T4 or better	
8	Enclosure Rating	IP66 or better	
9	Power Supply	24 V DC(2 wire type)	
10	Transmitter output	4 to 20 mA, HART	
11	Turndown	1:10	
12	Accuracy	0.04% of span	
13	Response time	Less than 100 milliseconds	
14	'o' Ring material	Glass filled PTFE	
15	Zero suppression/Zero elevation	Required	
16	Zero & Span Adjustment	Required	
17	Self Test Diagnostic	Required	
18	Process Connection	½" NPT F Through 3 way manifold	
19	Electrical Cable entry	½" NPT F	
20	Over Pressure limit	130% of specified range	
21	Mounting Bracket & Accessories for 2" Yoke Mounting	Required	
22	Integral Digital Output indicator	Yes, Required	
23	Three way valve manifold	Yes ,MOC-SS316	
24	Cable gland	Suitable for IIC area	
25	Certificates	Enclosure Protection, Intrinsic safe, Calibration certificates etc	
26	NACE MR0175 certificates		
27	SIL certification	SIL2 IN SINGLE CONFIGURATION	
28	Nut/ Bolt	MOC SS316 or better	

Tag no	Service	Op Pressure /Max pressure(kg/cm 2)	Sensor and wetted parts MOC	Range/Span(mmH2O)	Remarks
52DPT28A,51DPT 28B,52DPT28C	HC	15/ 18	SS316/SS316L/ Hasteloy C	0-18000mmH2O /20000mmH2O	
51FC 30A/B/C	Steam	20.0 /25.0	SS316/SS316L/ Hasteloy C	0-16700mmH2O /20000 mmH2O	
51FC31A/B/C,52FI 01A/B/C,51FI01,5 5FI10A/B/C,	Steam	20.0 /25.0	SS316/SS316L/ Hasteloy C	0-10000mmH2O /20000 mmH2O	
55FI04,57FI01A	AIR	4/6	SS316/SS316L/ Hasteloy C	0-10000mmH2O /20000 mmH2O	
51FI29A,55FI08A/ B/C,55FI11A,55FI1 1E,52FI03A/B/C,5 5FI03	HC	6/8	SS316/SS316L/ Hasteloy C	0-5000mmH2O /20000 mmH2O	
Sp1,Sp2,Sp3,Sp4,S p5,Sp6	Steam	10/15	SS316/SS316L/ Hasteloy C	0-10000mmH2O /20000 mmH2O	
59FT02A,59FT03A, 59FT04A,59FT05A, 59FT06A,59FT07A	STEAM	17/20	SS316/SS316L/ Hasteloy C	0-5000mmH2O /20000 mmH2O	
59FT01A,59FT09A, 59FT10A	FLUE GAS	5/7	SS316/SS316L/ Hasteloy C	0-5000mmH2O /20000 mmH2O	
11DPT801,11DPT1 101	HC	12/15	SS316/SS316L/ Hasteloy C	0-10000mmH2O/ 20000mmH2O	

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DP TRANSMITTER (For item no 00020)

SL NO	DESCRIPTION	REQUIREMENT	VENDOR'S COMMENT
	<u>SAPCODE-8144053784</u>		
1	Function	Transmit and Indicating	
2	Measuring Principle	Capacitance/Silicone Resonant/Piezoresistive	
3	Sensor type Comm Protocol	Diaphragm Type	
4	Comm Protocol	HART	
5	Electronic Housing	Epoxy coated/Die cast Aluminum	
6	Mounting	2"NB stanchion mounting	
7	Ex protection Requirement	EEx ia IIC T4 or better	
8	Enclosure Rating	IP66 or better	
9	Power Supply	24 V DC(2 wire type)	
10	Transmitter output	4 to 20 mA, HART	
11	Turndown	1:10	
12	Accuracy	0.04% of span	
13	Response time	Less than 100 milliseconds	
14	'o' Ring material	Glass filled PTFE	
15	Zero suppression/Zero elevation	Required	
16	Zero & Span Adjustment	Required	
17	Self Test Diagnostic	Required	
18	Process Connection	½" NPT F Through 3 way manifold	
19	Electrical Cable entry	½" NPT F	
20	Over Pressure limit	130% of specified range	
21	Mounting Bracket & Accessories for 2" Yoke Mounting	Required	
22	Integral Digital Output indicator	Yes, Required	
23	Three way valve manifold	Yes ,MOC-SS316	
24	Cable gland	Suitable for IIC area	
25	Certificates	Enclosure Protection, Intrinsic safe, Calibration certificates etc	
26	NACE MR0175 certificates		
27	SIL certification	SIL2 IN SINGLE CONFIGURATION	
28	Nut/ Bolt	MOC SS316 or better	

Tag no	Service	Op Pressure /Max pressure(kg/cm 2)	Sensor and wetted parts MOC	Range/Span(mmH2O)	Remarks
52FI02A/B/C,	HC	10/12	SS316/SS316L/ Hasteloy C	0-2500mmH2O /5000mmH2O	
55FI10C,55FI07A/B /C/D	HC	10/12	SS316/SS316L/ Hasteloy C	0-2000mmH2O /5000mmH2O	
55FI09A/B/E	Steam	20.0 /25.0	SS316/SS316L/ Hasteloy C	0-900mmH2O /5000 mmH2O	
Sp10,Sp11,Sp12,Sp 13	Steam/ HC	10/25	SS316/SS316L/ Hasteloy C	0-2500mmH2O/5000 mmH2O	
59LT01A,59LT02A, 59LT03A	WATER	20/25	SS316/SS316L/ Hasteloy C	0-1080mmH2O/5000 mmH2O	
21FT401,22FT402	N2	6.5/10	SS316/SS316L/ Hasteloy C	0-2500 mmH2O/5000 mmH2O	
14LT1401, 13LT1302, 37FT0915	CAUSTI C	15/20	SS316/SS316L/ Hasteloy C	0-2500 mmH2O/5000 mmH2O	
32FT0501/0502/ 0503/0504	HC	12/20	SS316/SS316L/ Hasteloy C	0-2000 mmH2O/5000 mmH2O	

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DP TRANSMITTER (For item no 00030)

SL NO	DESCRIPTION	REQUIREMENT	VENDOR'S COMMENT
	<u>SAPCODE-8142552013</u>		
1	Function	Transmit and Indicating	
2	Measuring Principle	Capacitance/Silicone Resonant/Piezoresistive	
3	Sensor type Comm Protocol	Diaphragm Type	
4	Comm Protocol	HART	
5	Electronic Housing	Epoxy coated/Die cast Aluminum	
6	Mounting	2"NB stanchion mounting	
7	Ex protection Requirement	EEx ia IIC T4 or better	
8	Enclosure Rating	IP66 or better	
9	Power Supply	24 V DC(2 wire type)	
10	Transmitter output	4 to 20 Ma, HART	
11	Turndown	1:10	
12	Accuracy	0.04% of span	
13	Response time	Less than 150 milliseconds	
14	'o' Ring material	Glass filled PTFE	
15	Zero suppression/Zero elevation	Required	
16	Zero & Span Adjustment	Required	
17	Self Test Diagnostic	Required	
18	Process Connection	½" NPT F Through 3 way manifold	
19	Electrical Cable entry	½" NPT F	
20	Over Pressure limit	130% of specified range	
21	Mounting Bracket & Accessories for 2" Yoke Mounting	Required	
22	Integral Digital Output indicator	Yes, Required	
23	Three way valve manifold	Yes ,MOC-SS316	
24	Cable gland	Suitable for IIC area	
25	Certificates	Enclosure Protection, Intrinsic safe, Calibration certificates etc	
26	NACE MR0175 certificates		
27	SIL certification	SIL2 IN SINGLE CONFIGURATION	
28	Nut/ Bolt	MOC SS316 or better	



Tag no	Service	Op Pressure /Max pressure(kg/cm 2)	Sensor and wetted parts MOC	Range/Span(mmH2O)	Remarks
51LI41A2/A3/B1/B 2,	Water	15/20	SS316/SS316L/ Hasteloy C	0-500mmH2O /600mmH2O	
51FC81B1/B2/C1/C 2	Water	15/20	SS316/SS316L/ Hasteloy C	0-60 mmH2O /600mmH2O	
Sp21,Sp22	Steam/ HC	10/20	SS316/SS316L/ Hasteloy C	0-500mmH2O /600mmH2O	

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DP TRANSMITTER(For item no 00040)

SL NO	DESCRIPTION		REQUIREMENT	VENDOR'S COMMENT		
	<u>SAPCODE-8140755704</u>					
1	Function		Transmit and Indicating			
2	Measuring Principle		Capacitance/Silicone Resonant/Piezoresistive			
3	Sensor type Comm Protocol		Diaphragm Type			
4	Comm Protocol		HART			
5	Electronic Housing		Epoxy coated/Die cast Aluminum			
6	Mounting		2”NB stanchion mounting			
7	Ex protection Requirement		Eex ia IIC T4 or better			
8	Enclosure Rating		IP66 or better			
9	Power Supply		24 V DC(2 wire type)			
10	Transmitter output		4 to 20 Ma, HART			
11	Turndown		1:10			
12	Accuracy		0.04% of span			
13	Response time		Less than 100 milliseconds			
14	‘o’ Ring material		Glass filled PTFE			
15	Zero suppression/Zero elevation		Required			
16	Zero & Span Adjustment		Required			
17	Self Test Diagnostic		Required			
18	Process Connection		½” NPT F Through 3 way manifold			
19	Electrical Cable entry		½” NPT F			
20	Over Pressure limit		130% of specified range			
21	Mounting Bracket & Accessories for 2” Yoke Mounting		Required			
22	Integral Digital Output indicator		Yes, Required			
23	Three way valve manifold		Yes ,MOC-SS316			
24	Cable gland		Suitable for IIC area			
25	Certificates		Enclosure Protection, Intrinsic safe, Calibration certificates etc			
26	NACE MR0175 certificates		For 92FI-5501A & 22 FI-1313			
27	SIL certification		SIL2 IN SINGLE CONFIGURATION			
28	Nut/ Bolt		MOC SS316 or better			
Tag no		Service	Op Pressure /Max pressure(kg/cm2)	Sensor and wetted parts MOC	Range/Span(mmH2O)	Remarks
SP-30 39FT102		Pure H2	30.5/50	SS316/SS316L/HASTELLOY-C(Gold plated sensor)	0-2500mmH2O /6000mmH2O	Gold plating of 5 micron

QTY-2

NO

Pressure TRANSMITTER(For item no 00050)

SL NO	DESCRIPTION	REQUIREMENT	VENDOR'S COMMENT
	<u>SAPCODE-8142528033</u>		
1	Function	Transmit and Indicating	
2	Measuring Principle	Capacitance/Silicone Resonant/Piezoresistive	
3	Sensor type	Diaphragm Type	
4	Comm Protocol	HART	
5	Electronic Housing	Epoxy coated/Die cast Aluminum	
6	Mounting	2"NB Pipe mounting	
7	Ex protection Requirement	Eex ia IIC T4 or better	
8	Enclosure Rating	IP66 or better	
9	Power Supply	24 V DC(2 wire type)	
10	Transmitter output	4 to 20 Ma, HART	
11	Turndown	1:10	
12	Accuracy	0.04% of span	
13	Response time	Less than 100 milliseconds	
14	'o' Ring material	Glass filled PTFE	
15	Zero suppression/Zero elevation	Required	
16	Zero & Span Adjustment	Required	
17	Self Test Diagnostic	Required	
18	Process Connection	½" NPT F Through 2 way manifold	
19	Electrical Cable entry	½" NPT F	
20	Over Pressure limit	130% of specified range	
21	Mounting Bracket & Accessories for 2" Yoke Mounting	Required	
22	Integral Digital Output indicator	Yes,Required	
23	Two way valve manifold	Yes ,MOC-SS316	
24	Cable gland	Suitable for IIC area	
25	Certificates	Material Test, Enclosure Protection, Intrinsic safe, Routine Test and calibration certificates	
26	NACE MR0175 certificates	NA	
27	SIL certification	Sil2 in single configuration	
28	Nut/Bolt	MOC SS316 or better	

MS

Tag no	Service	Op Pressure /Max pressure(kg/cm ²)	Sensor and wetted parts MOC	Range/Span(kg/cm ²)	Remarks
51PT605,51PT606,52PTT02B1/B2,52PI27B,52PT01B1/B2,57PT02A/B/C	HC	5/7	SS316/SS316L /Hasteloy C	0-3/ 0-10	
51PT801,51PT802,51PT901,51PT902,51PT701/702/703/704	STEAM	10/15	SS316/SS316L /Hasteloy C	0-3 /0-10	
52PT13A/B,52PT18B	WATER	20/25	SS316/SS316L /Hasteloy C	0-6 /0-10	
SP41,SP42,SP43,SP44,SP45	HC	5/7	SS316/SS316L /Hasteloy C	0-3/ 0-10	
59PT03A,59PT04A	FLUE GAS	5/8	SS316/SS316L /Hasteloy C	0-5/ 0-10	
59PT05A,59PT06A,59PT07A,59PT08A	FUEL GAS	2/5	SS316/SS316L /Hasteloy C	0-3/ 0-10	
18PT0407A,16PT3302 B/C,16PT3309B/C,18PT0407A	HC	1.4/3	SS316/SS316L /Hasteloy C	0-5/0-10	
85PT0120,85PT0818,86PT0108,87PT0106,87PT0318,87PT0405	HC	3/6	SS316/SS316L /Hasteloy C	0-6/0-10	
32PT10C/D/E	HC	3/6	SS316/SS316L /Hasteloy C	0-6/0-10	

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Pressure TRANSMITTER(For item no 00060)

SL NO	DESCRIPTION	REQUIREMENT	VENDOR'S COMMENT
	<u>SAPCODE-8144060144</u>		
1	Function	Transmit and Indicating	
2	Measuring Principle	Capacitance/Silicone Resonant/Piezoresistive	
3	Sensor type	Diaphragm Type	
4	Comm Protocol	HART	
5	Electronic Housing	Epoxy coated/Die cast Aluminum	
6	Mounting	2"NB Pipe mounting	
7	Ex protection Requirement	EEx ia IIC T4 or better	
8	Enclosure Rating	IP66 or better	
9	Power Supply	24 V DC(2 wire type)	
10	Transmitter output	4 to 20 Ma, HART	
11	Turndown	1:10	
12	Accuracy	0.04% of span	
13	Response time	Less than 100 milliseconds	
14	'o' Ring material	Glass filled PTFE	
15	Zero suppression/Zero elevation	Required	
16	Zero & Span Adjustment	Required	
17	Self Test Diagnostic	Required	
18	Process Connection	½" NPT F Through 2 way manifold	
19	Electrical Cable entry	½" NPT F	
20	Over Pressure limit	130% of specified range	
21	Mounting Bracket & Accessories for 2" Yoke Mounting	Required	
22	Integral Digital Output indicator	Yes,Required	
23	Two way valve manifold	Yes ,MOC-SS316	
24	Cable gland	Suitable for IIC area	
25	Certificates	Material Test, Enclosure Protection, Intrinsic safe, Routine Test and calibration certificates	
26	NACE MR0175 certificates	NA	
27	SIL certification	Sil2 in single configuration	
28	Nut/Bolt	MOC SS316 or better	

Tag no	Service	Op Pressure /Max pressure(kg/cm2)	Sensor and wetted parts MOC	Range/Span(kg/cm2)	Remarks
52PT03B,52PT04B	WATER	15/20	SS316/SS316L/Haste loy C	0-12/0-18	
52PT21B	HC	10/12	SS316/SS316L/Haste loy C	0-10/0-18	
57PT01/02	AIR	10/12	SS316/SS316L/Haste loy C	0-10/0-18	
Sp-46,Sp-47,Sp-48,SP49, 16PT3311B/C	HC	10/12	SS316/SS316L/Haste loy C	0-10/0-18	
25PT5006/5006A,22PT401, 25PT2804A,	HC	10/15	SS316/SS316L/Haste loy C	0-15/0-18	

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Pressure TRANSMITTER(For item no 00070)

SL NO	DESCRIPTION	REQUIREMENT	VENDOR'S COMMENT
	<u>SAPCODE-8144620213</u>		
1	Function	Transmit and Indicating	
2	Measuring Principle	Capacitance/Silicone Resonant/Piezoresistive	
3	Sensor type	Diaphragm Type	
4	Comm Protocol	HART	
5	Electronic Housing	Epoxy coated/Die cast Aluminum	
6	Mounting	2"NB Pipe mounting	
7	Ex protection Requirement	EEx ia IIC T4 or better	
8	Enclosure Rating	IP66 or better	
9	Power Supply	24 V DC(2 wire type)	
10	Transmitter output	4 to 20 mA, HART	
11	Turndown	1:10	
12	Accuracy	0.04% of span	
13	Response time	Less than 100 milliseconds	
14	'o' Ring material	Glass filled PTFE	
15	Zero suppression/Zero elevation	Required	
16	Zero & Span Adjustment	Required	
17	Self Test Diagnostic	Required	
18	Process Connection	½" NPT F Through 2 way manifold	
19	Electrical Cable entry	½" NPT F	
20	Over Pressure limit	130% of specified range	
21	Mounting Bracket & Accessories for 2" Yoke Mounting	Required	
22	Integral Digital Output indicator	Yes,Required	
23	Two way valve manifold	Yes ,MOC-SS316	
24	Cable gland	Suitable for IIC area	
25	Certificates	Material Test, Enclosure Protection, Intrinsic safe, Routine Test and calibration certificates	
26	NACE MR0175 certificates	NA	
27	SIL certification	Sil2 in single configuration	
28	Nut/Bolt	MOC SS316 or better	

Tag no	Service	Op Pressure /Max pressure(kg/cm2)	Sensor and wetted parts MOC	Range/Span(kg/cm2)	Remarks
52PT04A/B	WATER	20/25	SS316/SS316L/Haste loy C	0-20/0-50	
52PT08A/B	STEAM	20/25	SS316/SS316L/Haste loy C	0-20/0-50	
Sp-50,Sp-51	HC	20/25	SS316/SS316L/Haste loy C	0-20/0-50	
59PT14A,59PT 18A	WATER	20/25	SS316/SS316L/Haste loy C	0-30/0-50	
59PT15A,59PT 16A,59PT17A	STEAM	20/25	SS316/SS316L/Haste loy C	0-25/0-50	
12PT1201	HC	20/25	SS316/SS316L/Haste loy C	0-25/0-50	

QTY-12

Pressure TRANSMITTER(For item no 00080)

SL NO	DESCRIPTION	REQUIREMENT	VENDOR'S COMMENT
	<u>SAPCODE-8142528053</u>		
1	Function	Transmit and Indicating	
2	Measuring Principle	Capacitance/Silicone Resonant/Piezoresistive	
3	Sensor type	Diaphragm Type	
4	Comm Protocol	HART	
5	Electronic Housing	Epoxy coated/Die cast Aluminum	
6	Mounting	2"NB Pipe mounting	
7	Ex protection Requirement	EEx ia IIC T4 or better	
8	Enclosure Rating	IP66 or better	
9	Power Supply	24 V DC(2 wire type)	
10	Transmitter output	4 to 20 mA, HART	
11	Turndown	1:10	
12	Accuracy	0.04% of span	
13	Response time	Less than 100 milliseconds	
14	'o' Ring material	Glass filled PTFE	
15	Zero suppression/Zero elevation	Required	
16	Zero & Span Adjustment	Required	
17	Self Test Diagnostic	Required	
18	Process Connection	½" NPT F Through 2 way manifold	
19	Electrical Cable entry	½" NPT F	
20	Over Pressure limit	130% of specified range	
21	Mounting Bracket & Accessories for 2" Yoke Mounting	Required	
22	Integral Digital Output indicator	Yes,Required	
23	Two way valve manifold	Yes ,MOC-SS316	
24	Cable gland	Suitable for IIC area	
25	Certificates	Material Test, Enclosure Protection, Intrinsic safe, Routine Test and calibration certificates	
26	NACE MR0175 certificates	NA	
27	SIL certification	Sil2 in single configuration	
28	Nut/Bolt	MOC SS316 or better	

Tag no	Service	Op Pressure /Max pressure(kg/cm2)	Sensor and wetted parts MOC	Range/Span(kg/cm2)	Remarks
51PT77A/B	STEAM	100/125	SS316/SS316L/Haste loy C	0-100/0-200	
51PT29 B/C,51PT30 B/C	STEAM	100/125	SS316/SS316L/Haste loy C	0-100/0-200	
52PT01B	STEAM	100/125	SS316/SS316L/Haste loy C	0-100/0-200	
Sp56-57	STEAM	100/125	SS316/SS316L/Haste loy C	0-100/0-200	

QTY-09

Pressure TRANSMITTER(For item no 00090)

SL NO	DESCRIPTION	REQUIREMENT	VENDOR'S COMMENT
	<u>SAPCODE-8181013023</u>		
1	Function	Transmit and Indicating	
2	Measuring Principle	Capacitance/Silicone Resonant/Piezoresistive	
3	Sensor type	Diaphragm Type	
4	Comm Protocol	HART	
5	Electronic Housing	Epoxy coated/Die cast Aluminum	
6	Mounting	2"NB Pipe mounting	
7	Ex protection Requirement	EEx ia IIC T4 or better	
8	Enclosure Rating	IP66 or better	
9	Power Supply	24 V DC(2 wire type)	
10	Transmitter output	4 to 20 mA, HART	
11	Turndown	1:10	
12	Accuracy	0.04% of span	
13	Response time	Less than 150 milliseconds	
14	'o' Ring material	Glass filled PTFE	
15	Zero suppression/Zero elevation	Required	
16	Zero & Span Adjustment	Required	
17	Self Test Diagnostic	Required	
18	Process Connection	½" NPT F Through 2 way manifold	
19	Electrical Cable entry	½" NPT F	
20	Over Pressure limit	130% of specified range	
21	Mounting Bracket & Accessories for 2" Yoke Mounting	Required	
22	Integral Digital Output indicator	Yes,Required	
23	Two way valve manifold	Yes ,MOC-SS316	
24	Cable gland	Suitable for IIC area	
25	Certificates	Material Test, Enclosure Protection, Intrinsic safe, Routine Test and calibration certificates	
26	NACE MR0175 certificates	NA	
27	SIL certification	Sil2 in single configuration	
28	Nut/Bolt	MOC SS316 or better	

Tag no	Service	Op Pressure /Max pressure(kg/cm2)	Sensor and wetted parts MOC	Range/Span	Remarks
51PT89A/B	FURNACE DRAFT	150mmwc/500mmwc	SS316/SS316L/Haste loy C	-300 TO 200mmWC/ 0- 1kg/cm2	
51PT74A/B/C, 51PT401,51PT 402,51PT403	WIND BOX	150MMWC/300MMWC	SS316/SS316L/Haste loy C	OTO 200mmWC/ 0-1kg/cm2	
51PT75A/B/C,	FURNACE DRAFT	20MMWC/30MMWC	SS316/SS316L/Haste loy C	-25 TO +25MMWC/0- 1KG/CM2	
51PT501,51PT 502,51PT503, 51PT508	FURNACE DRAFT	125MMWC/200MMWC	SS316/SS316L/Haste loy C	OTO 150mmWC/ 0-1kg/cm2	
52PT19A/B/C	STEAM	500MMHG/760MMHG	SS316/SS316L/Haste loy C	0-9000MMWC/0- 1KG/CM2	
SP60-63		150MMWC/300MMWC	SS316/SS316L/Haste loy C	OTO 200mmWC/ 0-1kg/cm2	
59PT09A,59PT 10A,59PT11A, 59PT12A,59PT 13A	SCANNER AIR PR	600MMWC/750MMWC	SS316/SS316L/Haste loy C	0 TO 750MMWC/0- 1KG/CM2	
59PT01A	FLUE GAS	250/500 MMWC	SS316/SS316L/Haste loy C	0-1000MMWC/0- 1KG/CM2	
59PT02A	FLUE GAS	500/1000MMWC	SS316/SS316L/Haste loy C	0-500MMWC/0- 1KG/CM2	
21PT0201C/D	HC	-0.5 kg/cm2 / 1 kg/cm2	SS316/SS316L/Haste loy C	-1 to +1 kg/cm2 / 1 kg/cm2	
31PT1750/ 31PT1751	HC	500MMWC/1000MMWC		-20 TO 1000MMWC/ 0 TO 1 KG/CM2	

QTY-33

Temperature TRANSMITTER(For item no 00100)

SL NO	DESCRIPTION	REQUIREMENT	VENDOR'S COMMENT
	<u>SAPCODE-8162509093</u>		
1	Function	Transmit and Indicating, Dual Compartment type ie Electrical Housing and Electronic Should be Physically separated.	
2	Mounting with Sensor	Separate	
3	Location	Field	
INPUT			
4	Thermocouple	Min E,K	
5	Thermocouple Hot junction	Grounded	
6	RTD PT 100	3 wire	
7	No of inputs	1	
OUTPUT			
8	Signal	4-20mA DC	
9	Accuracy	Less than 0.50% of span	
10	Local Display	Yes, Temperature	
11	Local Display type	LCD /LED display	
12	Linearization	Built in required	
13	Cold Junction compensation	Required	
14	Communication protocol	HART	
15	Burnout feature	Required	
16	Power supply	24V DC(2 wire type)	
17	Stability	±0.2 % for RTD & be ±0.4 % for T/C per 5 years	
18	Cable entry size	½" NPT F	
19	Enclosure rating	IP 66	
20	Ex protection requirement	Eex ia IIC T4	
21	Enclosure material	Epoxy coated/ Die cast Alumunium	
22	Mounting Bracket	Required	
23	Cable Gland	Suitable for IIC	
24	Certificates	Enclosure rating, Ex protection, Shop calibration and Routine Test	
25	SIL certification	SIL2 in single configuration	

TAG no	Oper Temp(Deg C)	Design Temp (Deg C)	Calibrated Range(degC)	Transmitter Span(DegC)
12TT1201	60	100	0 to 100	0 to 750
21TI0201	280	300	0 to 300	0 to 750
11TI2201	118	150	0 to 200	0 to 750
11TT0501A/B/C	370	400	0 to 500	0 to 750
11TT1101 TO 11TT1120	250	350	0 to 400	0 to 750
16TT1101 TO 16TT1109	300	350	0 to 400	0 to 750

QTY-25

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Remote Seal DP TRANSMITTER(for item no 00110)

SL NO	DESCRIPTION	REQUIREMENT	VENDOR'S COMMENT
	<u>SAPCODE-8142625404</u>		
1	Function	Transmit and Indicating	
2	Measuring Principle	Capacitance/Silicone Resonant/Piezoresistive	
3	Sensor type	Diaphragm Type	
4	Comm Protocol	HART	
5	Electronic Housing	Epoxy coated / Die cast Aluminum	
6	Sensor material	SS316	
7	Mounting	2"NB stanchion mounting	
8	Ex protection Requirement	EEx ia IIC T4 or better	
9	Enclosure Rating	IP66 or better	
10	Power Supply	24 V DC(2 wire type)	
11	Transmitter output	4 to 20 mA, HART	
12	Turndown	1:10	
13	Accuracy	total accuracy with seal should be (+/-)0.20% of span	
14	Response time	Vendor to specify	
15	Zero suppression/Zero elevation	Required	
16	Zero & Span Adjustment	Required	
17	Self Test Diagnostic	Required	
18	Remote Seal Diaphragm Connection and MOC	2" 300 LBS RF for both HP and LP side. MOC SS316. Capillary length 6 mtrs on each side.	
19	Seal type	Integral Flush mount Flanged Type	
20	Electrical Cable entry	½" NPT F	
21	Over Pressure limit	Vendor to specify	
22	Mounting Bracket & Accessories for 2" Yoke Mounting	Required	
23	Integral Digital Output indicator	Yes, Required	
24	SS Bolts/Nuts/Screw	Yes, Required MOC SS316 or better	
25	Drip Ring	Two nos with ½" connection. MOC- SS316	
26	Cable gland	Suitable for IIC area	
27	Certificates	Material Test, Enclosure Protection, Intrinsic safe	
28	NACE MR0175 certificates		
29	SIL certification	SIL2 in single configuration	

Tag no	Service	Op Pressure /Max pressure(kg/cm2)	Op Temp/ MaX Temp (DegC)	Sensor and wetted parts MOC	Range/Span(mmH2O)	Remarks
11FT0101	HC	15.0 /20.0	120/150	SS316/SS316L/ Hasteloy C	0-2000mmH2O /5000mmH2O	
11FT2201	HC	11/15	120/140	SS316/SS316L/ Hasteloy C	0-2000mmH2O /5000mmH2O	
Sp-7/8	HC	11/15	120/140	SS316/SS316L/ Hasteloy C	0-2500mmH2O /5000mmH2O	
11FT0101 /01A	HC	15.0 /20.0	120/150	SS316/SS316L/ Hasteloy C	0-2000mmH2O /5000mmH2O	

QTY-6

Remote Seal Pressure Transmitter(For item no 00120)

SL NO	DESCRIPTION	REQUIREMENT	VENDOR'S COMMENT
	<u>SAPCODE-8144655383</u>		
1	Function	Transmit and Indicating	
2	Measuring Principle	Capacitance/Silicone Resonant/Piezoresistive	
3	Sensor type	Diaphragm Type	
4	Comm Protocol	HART	
5	Electronic Housing	Epoxy coated/ Die cast Aluminum	
6	Sensor material	SS316	
7	Mounting	2"NB stanchion mounting	
8	Ex protection Requirement	EEx ia IIC T4 or better	
9	Enclosure Rating	IP66 or better	
10	Power Supply	24 V DC(2 wire type)	
11	Transmitter output	4 to 20 mA, HART	
12	Turndown	1:10	
13	Accuracy	total accuracy with seal should be (+/-)0.20% of span	
14	Response time	Less than 5 secs for entire assembly	
15	Zero suppression/Zero elevation	Required	
16	Zero & Span Adjustment	Required	
17	Self Test Diagnostic	Required	
18	Remote Seal Diaphragm Connection and MOC	2" 300 LBS RF ,MOC SS316. Capillary length 6 mtrs	
19	Seal type	Diaphragm with Back Flange Single Seal	
20	Electrical Cable entry	½" NPT F	
21	Over Pressure limit	Vendor to specify	
22	Mounting Bracket & Accessories for 2" Yoke Mounting	Required	
23	Integral Digital Output indicator	Yes, Required	
24	SS Bolts/Nuts/Screw	Yes, Required,MOC SS	
25	Drip Ring	One nos with ½" connection.MOC-SS316	
26	Cable gland	Suitable for IIC area	
27	Certificates	Material Test, Enclosure Protection, Intrinsic safe	
28	SIL certification	SIL2 in single configuration	
29	NACE MR0175 certificates	NA	

Tag no	Service	Op Pressure /Max pressure(kg/cm2)	Op Temp/ MaX Temp (DegC)	Sensor and wetted parts MOC	Range/Span(Kg/Cm2)	Remarks
82PT1515B/ 1514B	HC	2.5 /6.0	369/400	SS316/SS316L/ Hasteloy C	0-6 kg/cm2 /0-15kg/cm2	
61PT601/ 602/603/ 604/605	HC	4 /8.0	250/300	SS316/SS316L/ Hasteloy C	0-8 kg/cm2 /0-15kg/cm2	

QTY-07

