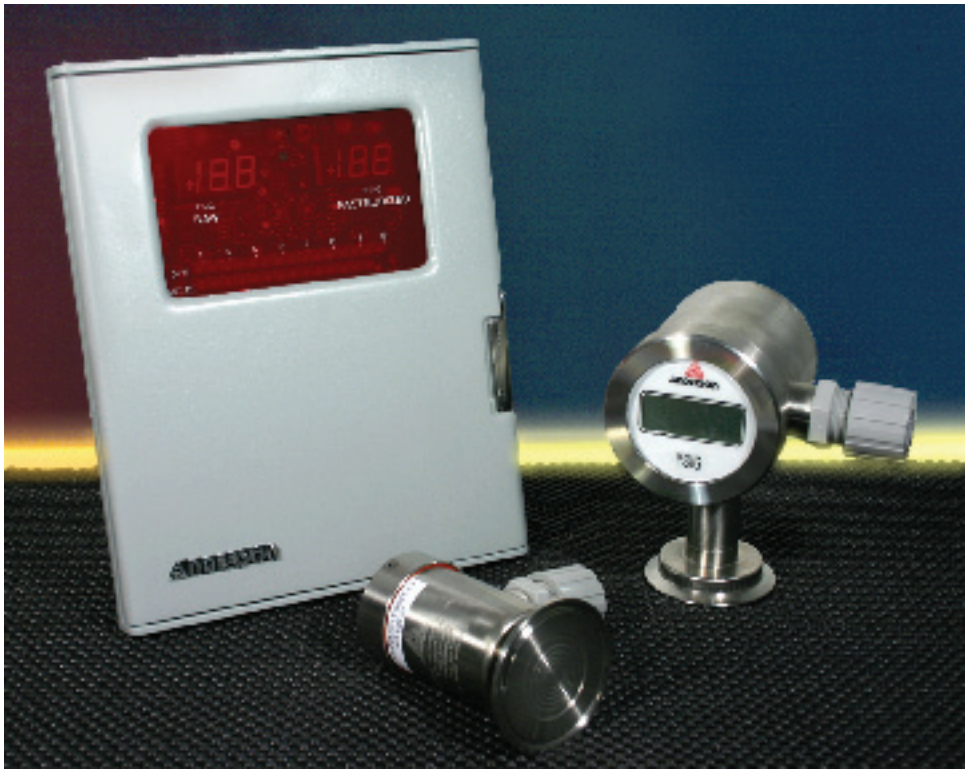
FLOW
LEVEL
PRESSURE
ANALYTICAL
TEMPERATURE
INSTRUMENTATION
PASTEURIZATION CONTROLS

JD - SANITARY DIFFERENTIAL PRESSURE SWITCH

- *Complies with all PMO, CFR and 3A standards*
- *Sensor and range options for standard and high temp (UHT/Aseptic) applications*
- *Options for "split" regenerators and higher pressures now available*
- *Large, bright, LED displays with simple-to-read differential bargraph*
- *Dual 4-20mA retransmission standard*
- *Secondary alarm relay on High Pressure channel is standard*

For over 20 years the Anderson "JD" has been the industry standard for insuring that continuous pasteurizer regenerators operate safely and in compliance with the PMO. Not only is it the simplest way to insure that the booster pump only runs when a safe differential exists across the regenerator, but it can also improve the operational efficiency of the system. By utilizing one or more of the standard features, the system can be protected against oscillation during start-up, or freeze-up of the cooler. It also can provide a control signal to simplify maintenance of proper system back-pressure. And with the new high pressure and temperature options you can specify exactly the right unit for your HTST, HHST, or UHT system. For a complete package of failsafe controls, please ask about our AV9900 STLR (AIC5002) and DART reference thermometer (AIC3348).



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JD Specifications

GENERAL

Power Supply:	115 or 230 VAC (specify), 50/60 Hz 30W max.consumption
Pressure Ranges:	0-99 psig, 0-199 psig, 0-9.9 BAR, 0-19.9 BAR
Differential Ranges:	1-15 psid, 5-75 psid, 0.1-1.5 BAR
Sensor Temperature Range:	25-250°F (SY transducer) 25-275°F (SR transmitter) 25-350°F (TFP-2 transmitter) 25-400°F (TFP-3 transmitter)
Pressure Inputs:	0-50 mV (std), 4-20mA (optional)
Relay Capacity:	5 amps at 115 or 230VAC for both Differential (K1) and High Pressure Alarm (K2)
4-20mA Retrans:	Any two of three channels (specify when ordering) internally powered at 15VDC (500 ohms max loop resistance)
Approvals:	FDA Milk Safety Branch memorandum of compliance with PMO; UL listed

ENCLOSURE

Material:	Aluminum w/Polyurethane paint
Dimensions:	10"H x 8 1/16"W x 3 15/16"D
Weight:	8 1/4 lbs.

HOW TO ORDER

Sanitary Differential Pressure Switch

G B 1 □□□ □ □□ □ □ □ □

CASE & MOUNT
1 Aluminum case (surface or panel mount)

RANGE
070 0-99 psig
204 0-9.9 BAR
247 0-199 psig
465 0-19.9 BAR

ENGINEERING UNITS
G psig
B BAR

DIFFERENTIAL
097 1-15 PSID Diff. (Std. for Range 070)
101 5-75 PSID Diff. (Std. for Range 247)
205 .1-1.5 BAR Diff. (Std. for Range 204,465)

POWER
1 115V 50/60 Hz
2 230V 50/60 Hz

RETRANSMISSION
1 Past. & Diff. - Std. (4-20mA internally powered)
2 Raw & Pasteurized (4-20mA internally powered)
3 Raw & Differential (4-20mA internally powered)

INPUTS
1 Raw = mV(SY); Past. = mV (SY) standard

2 Raw = 4-20mA internal power (SR/TFP); Past. = 4-20mA internal power (SR/TFP)

3 Raw = mV (SY); Past. = 4-20mA internal power (SR/TFP)

4 Raw = 4-20mA internal power (SR/TFP); Past. = mV (SY)

5 Raw = mV(SY); Past. = 4-20mA ext. power (ext. powered retran signal)

6 Raw = 4-20mA ext. power (ext. powered retran signal) Past. = mV (SY)

7 Raw = 4-20mA ext. power (TFP) Past. = 4-20mA ext. power (TFP)

Sanitary Transducer with Conduit Housing

S Y □□□ □ □□ □ □ □ □

RANGE
070 0-99 psig
204 0-9.9 BAR
247 0-199 psig
465 0-19.9 BAR

ENGINEERING UNITS
G psig
B BAR

FITTINGS
004 1 1/2" Tri-Clamp
005 2" Tri-Clamp
016 1 1/2" Cherry "I" (male)
017 2" Cherry "I" (male)
027 1 1/2" G & H "H" line (male)
028 2" G & H "H" line (male)
044 1 1/2" #14 Bevel Seat (w/nut)
045 2" #14 Bevel Seat (w/nut)
059 1 1/2" NPT

DIAPHRAGM MATERIAL
1 316 "L" Stainless Steel (Standard)
2 Hastelloy "C"

DIAPHRAGM FINISH
1 Standard (R_a = 25 microinches)

CABLE LENGTH

00	No Cable		
05	25'	21	125'
10	50'	22	150'
15	75'	23	175'
20	100'	24	200'

NOTE: If ordering SY transducer separately, include interface card - matched set*. Information provided below:

CODE	RANGE	CARD NUMBER
070	0-99 psig	56014-E0084
204	0-9.9 BAR	56014-E0086
247	0-199 psig	56014-E0085
465	0-19.9 BAR	56014-E0085

* *Interface cards for SY transducers only.*

SANITARY ELECTRONIC PRESSURE TRANSMITTER - (HIGH TEMPERATURE)

T F P □ □ □ □ □ □ 1 □ □ □ □ □

STYLE
2 High Temp (direct mount)
3 High Temp (remote mount)[1]

SENSOR TYPE
1 psig/BAR (overpressure/signal shift low)
3 psig/BAR (overpressure/signal shift high) - Standard

UPPER RANGE LIMIT
3 0-99 psig, 0-9.9 BAR, 0-199 psig
4 0-19.9 BAR

PROCESS CONNECTION

004	1-1/2" Tri-Clamp	017	2" CB "I" (male)
005	2" Tri-Clamp	027	1-1/2" G&H "H" Line (male)
016	1-1/2" CB "I" (male)	028	2" G&H "H" Line (male)

DIAPHRAGM MATERIAL
1 316L Stainless Steel (Std.)
2 Hastelloy "C"

MOUNTING
1 Direct Mount (Style 2)

Options below apply to Style 3 ONLY

A	5' Poly	L	5' SS
B	10' Poly	M	10' SS
C	15' Poly	N	15' SS
D	20' Poly	P	20' SS
E	25' Poly	Q	25' SS

DISPLAY
1 No display - health authority seal
2 psig display - health authority seal
3 BAR display - health authority seal

RANGES
070 0-99 psig
204 0-9.9 BAR
247 0-199 psig
465 0-19.9 BAR

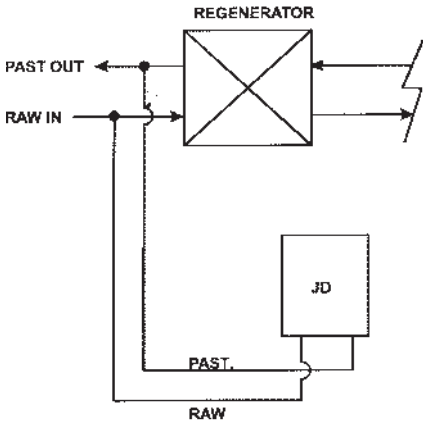
[1] Pipe/Wall mount bracket included with remote mount option (Style 3).

Replacement Interface Cards

RANGE	CARD NUMBER
ALL	56014E0088
	Use this card if power to sensor is required (standard).
ALL	56014E0087
	Use this card if channel to receive an already powered signal (retran input).

Note: Replacement card needed only if original is damaged. Calibration will not change if replacing sensor.

"TYPICAL" SINGLE REGENERATOR SYSTEM SCHEMATIC



COMMON JD INPUT SETUP

Standard Temp. Processing = JD INPUT CONFIG "1"
(SY transducers)
High Temp. Processing = JD INPUT CONFIG "2"
(TFP transmitters)

SR - SANITARY ELECTRONIC PRESSURE TRANSMITTER

S R ☐☐☐ ☐ ☐☐☐ ☐ ☐ 1 ☐☐

RANGE

070	0-99 psig
204	0-9.9 BAR
247	0-199 psig
465	0-19.9 BAR

ENGINEERING UNITS

G	psig
B	BAR

FITTING

004	1-1/2" Tri-Clamp
005	2" Tri-Clamp
016	1-1/2" Cherry "I" (male)
017	2" Cherry "I" (male)
027	1-1/2" G & H "H" line (male)
028	2" G & H "H" line (male)
044	1-1/2" #14 Bevel Seat (w/nut)
045	2" #14 Bevel Seat (w/nut)
059	1-1/2" NPT

DISPLAY VALUE

1	No display - health authority seal
2	psig display - health authority seal
3	BAR display - health authority seal

DIAPHRAGM MATERIAL

1	316L Stainless (Standard)
2	Hastelloy "C" (Optional)

DIAPHRAGM FINISH

1	Standard (R_a25 micro-inches)

CABLE LENGTH

00	No Cable	A0	Quick Disconnect Receptacle (QDR)
05	25'	A1	QDR & Field Wireable Connector (FWC)
10	50'	A2	QDR w/25' Molded Cordset
15	75'	A3	QDR w/50' Molded Cordset
20	100'	A5	QDR w/100' Molded Cordset
24	200'	A9	QDR w/200' Cable

Replacement Interface Cards

RANGE	CARD NUMBER
ALL	56014E0088

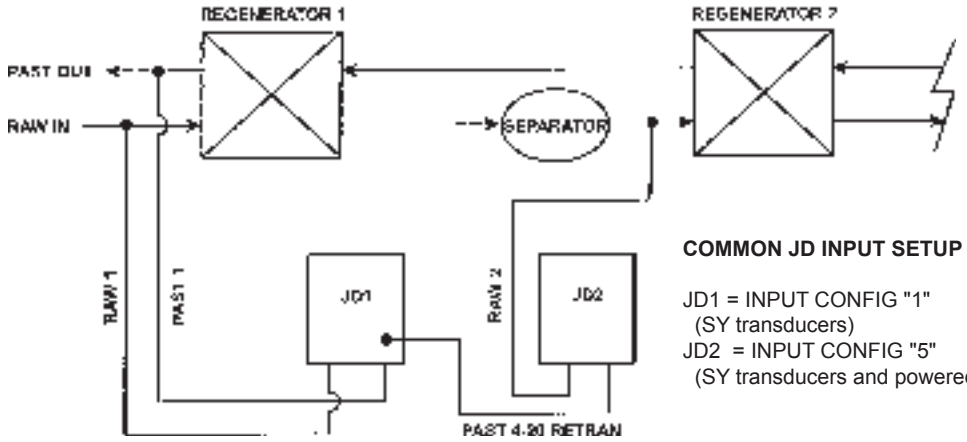
Use this card if power to sensor is required (standard).

ALL 56014E0087

Use this card if channel to receive an already powered signal (retran input).

Note: Replacement card needed only if original is damaged. Calibration will not change if replacing sensor.

"TYPICAL" SPLIT REGENERATOR SYSTEM SCHEMATIC



COMMON JD INPUT SETUP

JD1 = INPUT CONFIG "1"
(SY transducers)
JD2 = INPUT CONFIG "5"
(SY transducers and powered 4-20 input)

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