

# GB - Sanitary Differential Pressure Switch

## Introduction

For over 20 years the Anderson-Negele "GB" 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 and DART reference thermometer.

## Authorizations



## Features

- Complies with all PMO, CFR and 3-A 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



**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.

**Order Information**

**Sanitary Differential Pressure Switch**



**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 retrans signal)

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

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

**Sanitary Transducer with Conduit Housing**



**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<sup>2</sup>

**DIAPHRAGM MATERIAL**

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

**DIAPHRAGM FINISH**

1 Standard (R<sub>a</sub> = 25 microinches)

**CABLE LENGTH**

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

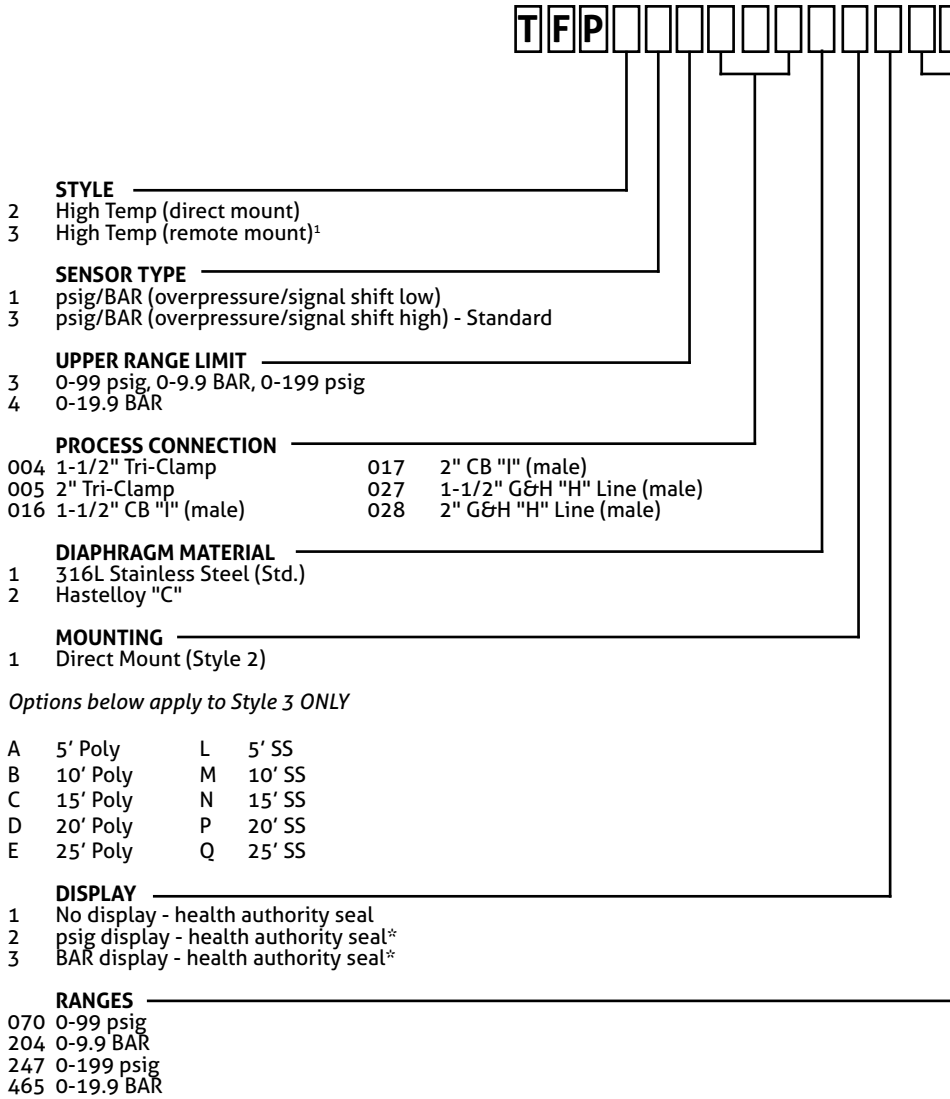
**NOTE: If ordering SY transducer separately, include interface card - matched set<sup>1</sup>. Information provided below:**

CODE	RANGE	CARD NUMBER
070	0-99 psig	SP56014E0084
204	0-9.9 BAR	SP56014E0086
247	0-199 psig	SP56014E0085
465	0-19.9 BAR	SP56014E0085

<sup>1</sup> Interface cards for SY transducers only.

<sup>2</sup> Not 3-A compliant

**Sanitary Electronic Pressure Transmitter - (High Temperature)**



**Replacement Interface Cards**

RANGE	CARD NUMBER
ALL	SP56014E0088

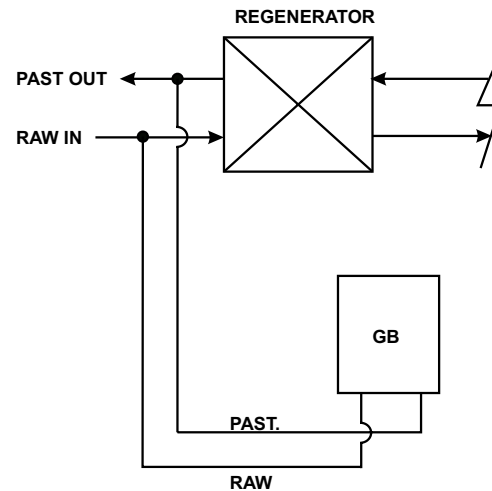
Use this card if power to sensor is required (standard).

ALL	SP56014E0087
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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.*

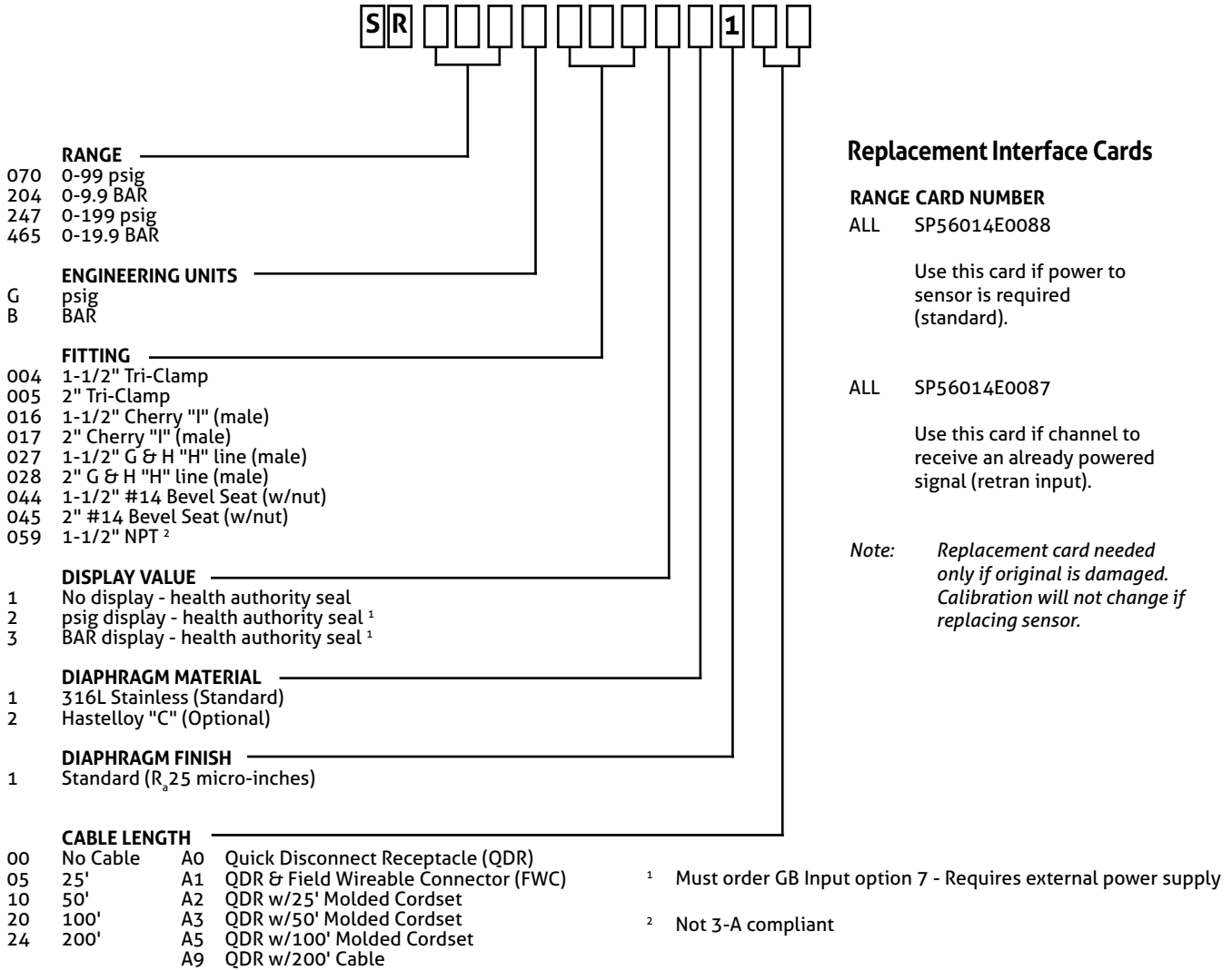
**"Typical" Single Regenerator System Schematic**



**COMMON GB INPUT SETUP**

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

SR - Sanitary Electronic Pressure Transmitter



"Typical" Split Regenerator System Schematic

