

DIGITAL SENSOR ARRAY

DSA 3007, 3207, 3307 Series Modules

INSTRUCTION AND SERVICE MANUAL

01/2011

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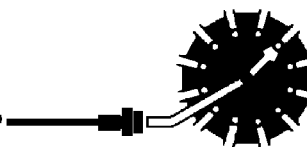


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SPECIFICATIONS - DSA 3007/3207

Pressure Channels:	2 to 16	
Input Fittings:	1/8 inch Swagelok stainless steel fittings	
Full Range Scales:		
Gauge	5, 15, 30, 100, 250, 500, 1000, and 1500 psi (34.5, 103, 207, 690, 1725, 3450, 7000, and 10500 kPa)	
Absolute	15, 30, 50, 100, and 250 psi (103, 207, 345, 690, and 1725 kPa)	
Accuracy (gauge):		
5 psi	±0.2% of full scale	
15 psi to 499 psi	±0.12% of full scale	
500 psi	±0.15% of full scale	
1000 psi	±0.25% of full scale	
1500 psi	±0.30% of full scale	
Accuracy (absolute):		
	With CALB performed	Without CALB performed
15 psia	±0.12% of full scale	±0.25% of full scale
30 psia	±0.12% of full scale	±0.25% of full scale
50 psia	±0.12% of full scale	±0.25% of full scale
100 psia	±0.12% of full scale	±0.25% of full scale
250 psia	±0.12% of full scale	±0.25% of full scale
Overpressure Capability:		
5 psi to 1000 psi	200% of full scale	
1500 psi	133% of full scale	
Interface Connector:		
Ethernet 10Base-2	BNC(RG58) (Obsolete)	
Ethernet 10Base-T		
DSA 3007	RJ 45	
DSA 3207	PT06A-8-4S-SR	
DSA 3307	PT06A-8-4S-SR	
RS 232	PT06A-10-6S-SR	
Power Requirements:		
No Heater	20 to 36 Vdc @ 8W (Nominal 28Vdc)	
With Heater	Main Power - 20 to 36 Vdc @ 8W (Nominal 28Vdc) Heater Power - 20 to 36 Vdc @ 100W (Nominal 28 Vdc)	
Media Compatibility:	Water, Fuel and Lubricating Oils, or gasses compatible with Buna-N O-rings. Neoprene and Viton O-rings available on request.	
Communications Protocol:		
Ethernet	IEEE 802.3	
Serial	RS 232	

Maximum Data Throughput Rate:

DSA3007
DSA3207

Engineering Units - 45 Samples/Channel/Sec
Engineering Units - 500 Samples/Channel/Sec

Typical Communications Rate:

Ethernet
Serial

10 Mbits/sec

DSA3007 - 1200 to 19200 BAUD (Back Door)
DSA3207 - 1200 to 19200 BAUD (Configuration Only)

Weights:

Base
Base with Heater
Hi Pressure Sensor Pack
Low Pressure Sensor Pack
Dummy Sensor Pack

3.5 lbs (1.59 kg)
5.5 lbs (2.50 kg)
1.0 lbs (0.45 kg)
.75 lbs (0.34 kg)
.75 lbs (0.34 kg)

Dimensions (LXWXH):

No Heater
With Heater

9.70in(246.5mm) X 4.38in(111.25mm) X 3.01in(76.6mm)
9.75in(247.7mm) X 3.58in(90.5mm) X 5.54in(140.7mm)

Operating Temp:

0 to 60°C
-20 to 60°C with heater

Compensated Range:

DSA3007
DSA3207

0 to 59°C
0 to 59°C

Total Thermal Error:

±0.003% FS

SPECIFICATIONS - DSA 3307

Pressure Inputs:	2 to 16
Input Fittings:	1/8 inch Swagelok stainless steel fittings
Full Range Scales:	1, 5, 15, 30, 50, 100 and 300 psid (6.9, 34.5, 103, 207, 345, 690, 2075 kPa)
Accuracy:	
1 psid	To Be Determined
5 psid and above	±0.50% of full scale differential pressure
Overpressure Capability:	
1 psi	5 psi (34.5 kPa)
5 psi	15 psi (103 kPa)
15 psi	45 psi (310 kPa)
30 psi	90 psi (620 kPa)
50 psi	150 psi (1035 kPa)
100 psi	250 psi (1725 kPa)
300 psi	500 psi (3450 kPa)
Line Pressure Capability:	
1 psi	50 psi (345 kPa)
5 psi	100 psi (690 kPa)
15 psi	100 psi (690 kPa)
30 psi	100 psi (690 kPa)
50 psi	250 psi (1725 kPa)
100 psi	250 psi (1725 kPa)
300 psi	500 psi (3450 kPa)
Interface Connector:	
Ethernet 10Base-T	PT06A-8-4S-SR (Mating connector)
RS 232	JTP02RE8-6P (DSA connector)
	JTO6RE8-6S-SR (Mating connector)
Power Requirements:	
No Heater	20 to 36 Vdc @ 8W (Nominal 28Vdc)
With Heater	Main Power 20 to 36 Vdc @ 8W (Nominal 28Vdc)
	Heater Power 20 to 36 Vdc @ 100W (Nominal 28 Vdc)
Media Compatibility:	Water, Fuel and Lubricating Oils, or gasses compatible with Buna-N O-rings. Neoprene and Viton O-rings available on request.
Communications Protocol:	
Ethernet	IEEE 802.3
Serial	RS 232
Maximum Data Throughput Rate:	Engineering Units - 500 Samples/Channel/Sec
Typical Communications Rate:	
Ethernet	10 Mbits/sec
Serial	1200 to 19200 BAUD (Configuration Only)

Weights:

Base	3.5 lbs (1.59 kg)
Base with Heater	5.5 lbs (2.50 kg)
Differential Sensor Pack	1.5 lbs (0.68 kg)
Dummy Sensor Pack	.75 lbs (0.34 kg)

Dimensions (LxWxH):

No Heater	9.70in(246.5mm) X 3.01in(76.6mm) X 4.38in(111.25mm)
With Heater	9.75in(247.7mm) X 3.58in(90.5mm) X 5.54in(140.7mm)

Operating Temp:

0 to 60°C
-20 to 60°C with heater

Compensated Range:

0 to 59°C

Total Thermal Error:

±0.003% FS

GENERAL DESCRIPTION

The Digital Sensor Array is a stand alone temperature compensated electronic pressure scanner which can accept up to 16 liquid inputs. Each Digital Sensor Array incorporates 16 individual, temperature compensated, piezoresistive pressure sensors with an A/D converter and a microprocessor to create an intelligent pressure scanner. Each pressure sensor is characterized for pressure and temperature from 0 to 59°C(DSA3000 Series) or 0 to 69°C (DSA3200/3300 Series) . This information is stored in EEPROM memory in the module. This electronic pressure scanning module is specifically designed for use in applications where long calibration intervals are required and ambient temperatures can vary down to 0° C. For operation where the ambient temperatures are below 0° C, heater kit P/N 20790 is required.

The sensors used in the DSA3007/3207/3307 are “all media” sensors. They incorporate a stainless steel diaphragm to isolate the sensors from the media. The DSA3007/3207 are wet/dry, and the DSA3307 is a wet/wet design.

The DSA3007/3207 sensors are arranged in blocks of two (2). Each sensor has its own bleed valve. The DSA3307 sensors are also arranged in blocks of two (2) with positive and negative pressure inputs for each sensor. While the DSA3307 sensor blocks are not equipped with a bleed valve, they are equipped with a ‘shunt purge’ valve that provides a means to purge air out of the system.

The DSA 3007/3207/3307 modules are manufactured as a “base unit” and two(2) channel “sensor packs.” Each base unit may accept up to 8 sensor packs. Each sensor pack may be a different pressure range.

The DSA 3007/3207/3307 modules are all powered by a nominal +28 Vdc.

GETTING STARTED

HARDWARE

The Digital Sensor Array is a self-contained pressure scanning system. It requires minimal interfacing by a user.

- 1) Mount the Digital Sensor Array to the test fixture using the mounting holes provided or the Mounting Bracket provided with the unit. The mounting bracket may be mounted on the side of the module. Mounting dimensions and other information may be found in Figure 3.
- 2) Connect +28Vdc to the unit. Wiring information may be found in Figure 6.
- 3) If the module is a DSA3207 or 3307 and the IP Address must be modified to operate in the user's network, the RS232/Trigger cable must be connected. The IP Address can only be modified by following the DSA3200/3300 Boot Parameter Modification procedure in the DSA3200/3300 Software Specification. The DSA Software Specification is a separate manual. Alternately, the IP address of the host computer can be modified to allow proper communications with the DSA module.
- 4) Connect the Ethernet link. Refer to page 14 for more information on the Ethernet connections.
- 5) If external triggering is to be used, connect the Trigger Input. Wiring information may be found in Figures 7 and 8.
- 6) Connect the Px inputs.
- 7) Allow a minimum of 30 minutes for warmup. However, in many cases, a one hour warmup is preferred.
- 8) When the sensor temperatures have stabilized, execute a CALZ command before acquiring data. If the module, and sensor temperatures, change more than 3 degrees C between data points, the CALZ command should be executed before acquiring the data.

SOFTWARE

Communication with the Digital Sensor Array must use one of the following methods:

- a) Ethernet (10base-2 or 10Base-T) TCP/IP or UDP
- b) National Instruments LabVIEW**
- c) Scanivalve Corporation's DSALink3
- d) Windows* HyperTerminal
- e) Scanivalve Corporation's LabVIEW** Configuration Utility

* Windows is a registered trademark of Microsoft Corporation.

** LabVIEW is a registered trademark of National Instruments Inc.



Figure 1 - DSA 3007/3207 (DSA 3007 shown)

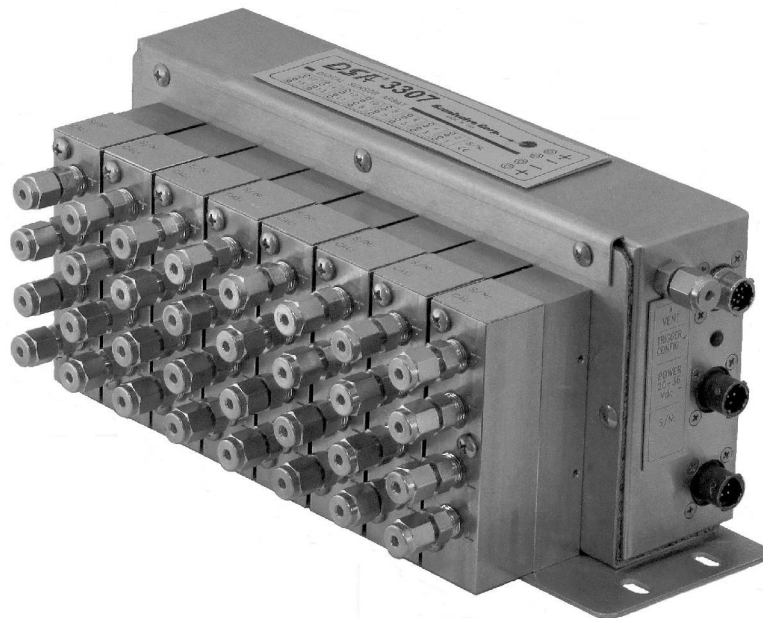


Figure 2 - DSA 3307

HARDWARE INSTALLATION

Figure 3 shows the DSA 3007 with the Universal Mounting Bracket. Dimensions are in inches and (millimeters).

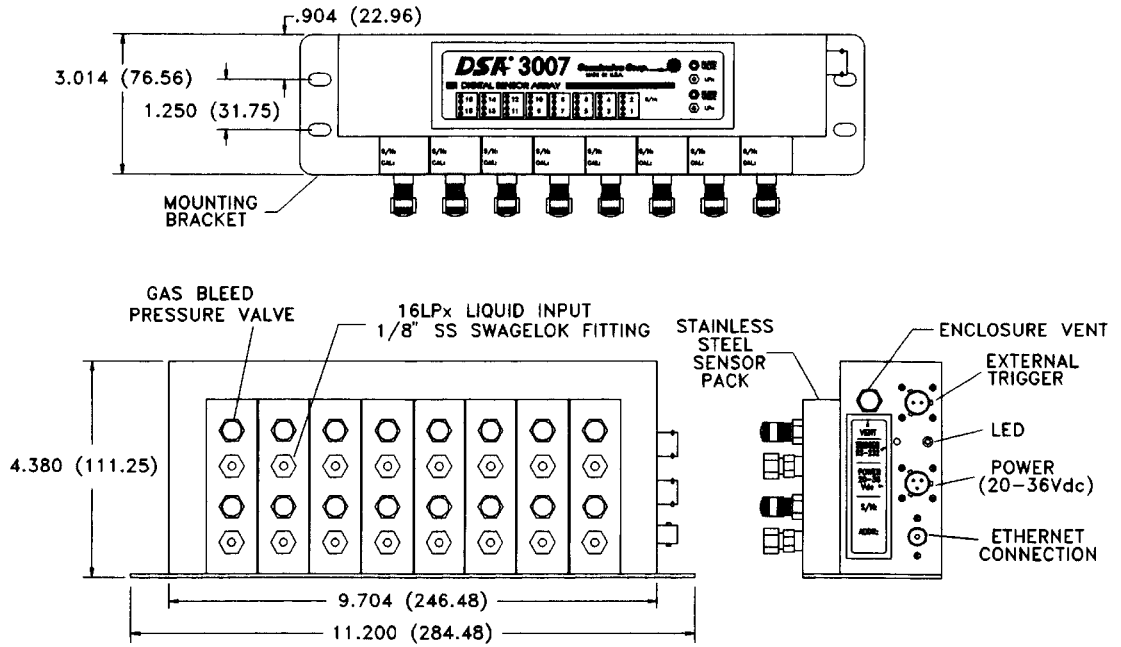


Figure 3 - DSA 3007/3207 Mounting and configuration

MOUNTING ORIENTATION

Figure 4 shows the preferred mounting orientation for all DSA 3007, 3207 and 3307 modules. It is important that the module is mounted such that any liquid that is spilled on the unit or leaked from any connections falls away from the module. Remember, the DSA is enclosed in a splash resistant housing, not a waterproof housing so wipe away any liquid spilled or splashed on the unit as quickly as possible.

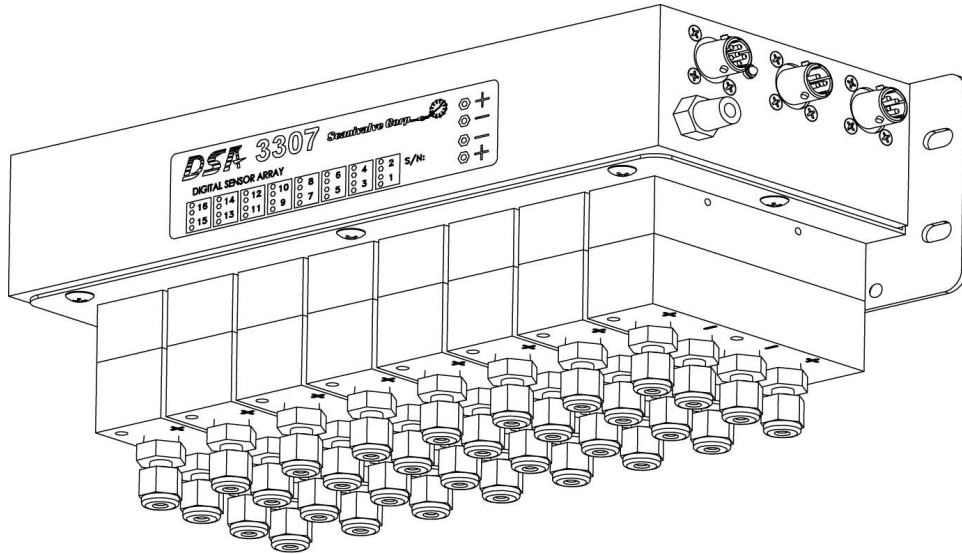


Figure 4 - Preferred DSA3007/3207/3307 Mounting orientation

If it is not possible to mount the DSA module in the orientation shown in Figure 4, the module can be mounted as shown in Figures 1 and 2, with the fittings exiting horizontally. The orientation depicted in Figure 4 allows for easier line bleeding. However, if the module is mounted as shown in Figure 1 and 2, the user must take extra care to keep the DSA module dry. Ensure there is no liquid spilled around the base of the sensor packs to prevent liquid from wicking up into the module causing damage.



THE DSA 3007/3207/3307 HOUSING IS NOT WATERPROOF.
WIPE UP ANY LIQUID SPILLED ON THE MODULE AS
QUICKLY AS POSSIBLE.

DSA3207/3307 HEATER JACKET

An optional Heater Jacket (Part #20790) is available for DSA 3207 and DSA 3307 modules. The heater jacket will extend the operation of the DSA 3207 or DSA 3307 module to -20°C. The Heater Jacket clamps to the outside of the DSA sensor packs. Heater pads in the top and bottom of the jacket will heat the sensor packs to 20° C. The Heater Jacket is powered by a separate connector mounted on the heater assembly. Power requirements are +28 Vdc @ 3.5 A.. Dimensions are in inches and (centimeters).

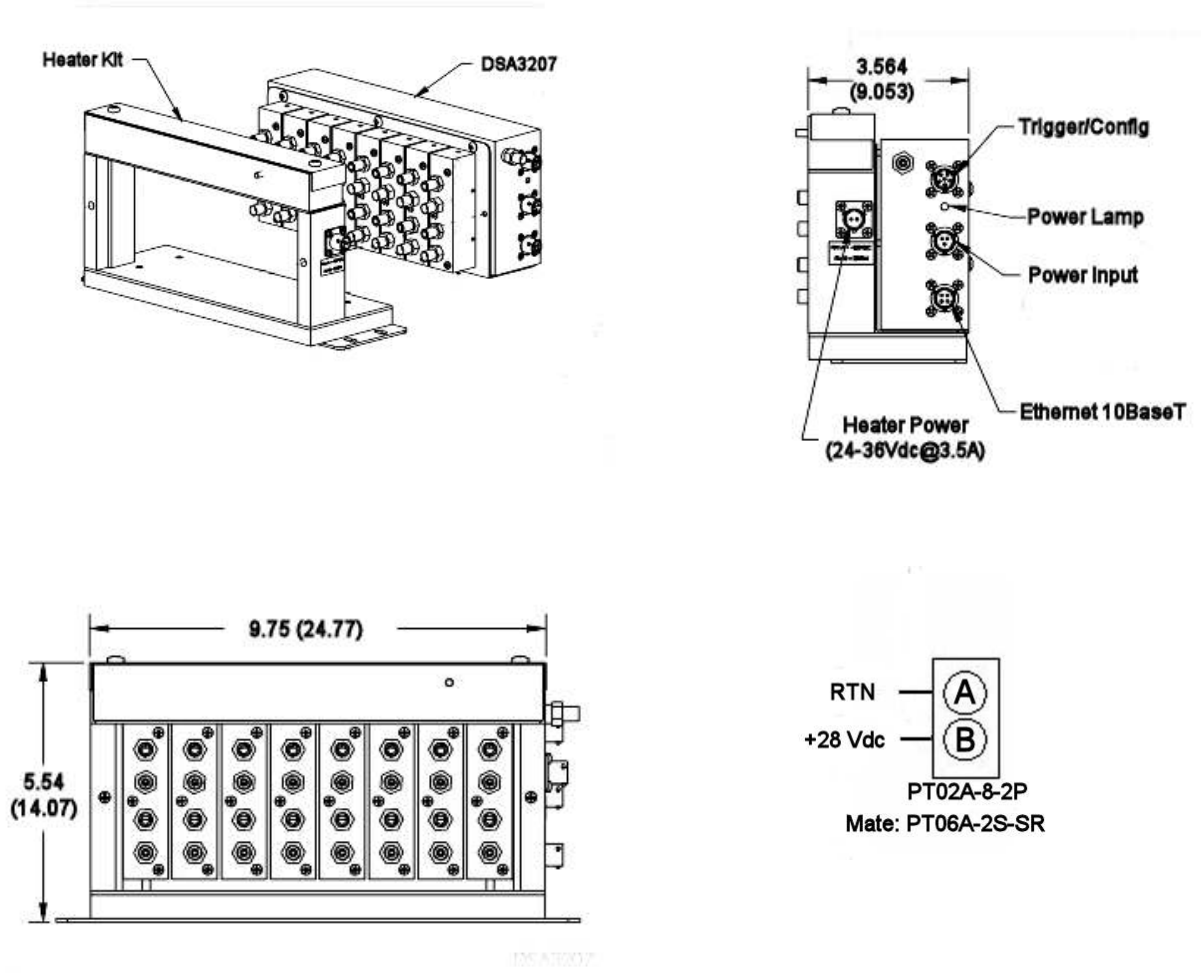


Figure 5 - DSA 3207 Heater Jacket Installation and Power Configuration

POWER REQUIREMENTS DSA3007/3207/3307

Main Power

The DSA 3007/3207/3307 modules require $28\pm 8\text{Vdc}$ at approximately 8 W. This will remain constant while the module is operating normally. Power connections are made through a three pin connector located on the side of the module. The pinouts of the connector may be found in Figure 6.

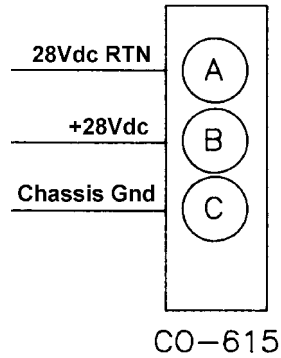


Figure 6 - DSA 3007/3207/3307 Power wiring

EXTERNAL TRIGGER REQUIREMENTS

The Digital Sensor Array scan functions may be synchronized with other data acquisition devices by using the external trigger.

DSA 3007 Modules

The 3000 Series Modules may be triggered by a hardware trigger. The external trigger input is optically isolated to prevent grounding problems. It is a CMOS level, edge sensing device. It requires a minimum signal of 5Vdc @ 11.25 mA. It may accept voltages as high as 15 Vdc. The external trigger will only be active if XSCANTRIG is set to 1. When a SCAN command is issued by the Client/host, the module enters the SCAN mode and waits for a trigger. The module will return an averaged frame of data for each trigger pulse received. This will continue until the Frames_per_Scan variable value is met, or until a STOP command is issued.

DSA 3207/3307 Modules

The 3207 and 3307 Modules may be triggered by a hardware or software trigger.

Hardware Trigger

The external trigger input is optically isolated to prevent grounding problems. It is a TTL level, edge sensing device. It requires a minimum signal of 5Vdc @ 11.25 mA. It may accept voltages as high as 15 Vdc. The external trigger will only be active if XSCANTRIG is set to 1. When a SCAN command is issued by the Client/host, the module enters the SCAN mode and waits for a trigger. The module will return an averaged frame of data for each trigger pulse received. This will continue until the Frames_per_Scan variable value is met, or until a STOP command is issued.

Software Trigger

The software trigger will only be active if XSCANTRIG is set to 1. When a SCAN command is issued by the Client/host, the module will enter the SCAN mode and wait for a trigger. An averaged frame of data will be output as soon as the TRIG command or a <TAB> character (9 HEX or Control I) is received. Data will be output with each successive trigger command. This will continue until the Frames_per_Scan variable value is met, or until a STOP command is issued.

DSA 3207 and DSA 3307 modules use a 6 pin connector for a combination Trigger and Serial Communications Interface. The wiring of the trigger input connector for both configurations is shown in Figure 7.

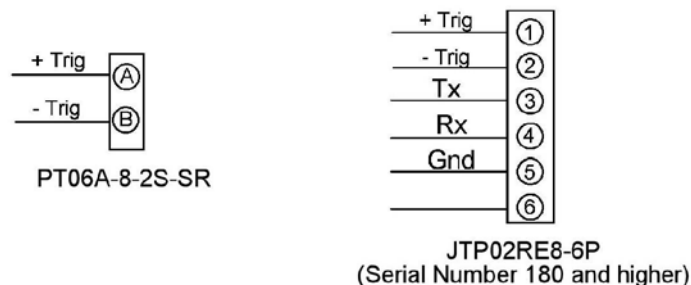


Figure 7 - Trigger wiring

RS 232 COMMUNICATIONS

Every DSA 3207 and DSA 3307 module has an RS 232 output. It is available at the Serial Communications/Trigger Connector. It is designed to be used to configure the module, upload coefficients and operating system upgrades, and provide emergency communications. The wiring of the RS 232 output is shown in Figure 8.

NOTE: The cable wiring must connect the Tx output from the host computer to the Rx input of the DSA module. Also the Rx input of the host computer must connect to the Tx output of the DSA module.

A combination RS22 and External Trigger cable(Scanco PN 155829) is available as an option. The cable is shown below along with a recommended wiring diagram.

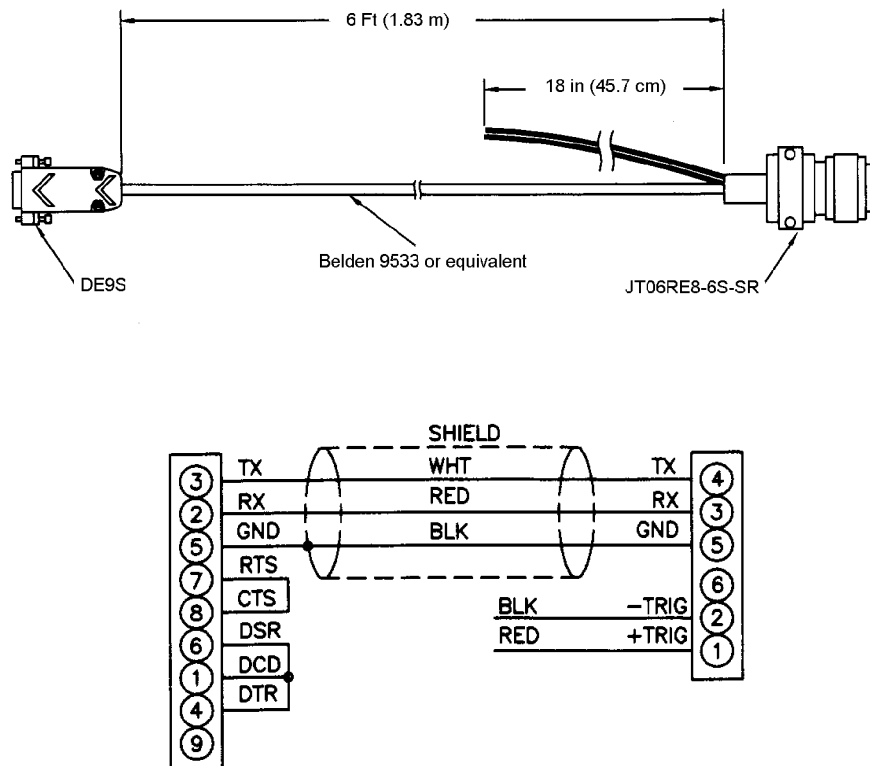


Figure 8 - RS232 / External Trigger Test Cable

NOTE: The wiring in Figure 8 is correct for all 3200 Series modules except for DSA 3007 modules that have been converted to the 3200 series. These modules have a PT02A-10-6P installed on the module and use a PT06A-10-6S-SR in the interface cable. The interface cables must have the Transmit and Receive lines swapped for the RS232 to communicate correctly.

ETHERNET CONNECTIONS

The DSA 3007 has provisions for 10Base-T or 10Base-2 Ethernet connections. The DSA 3207/3307 only supports 10Base-T.

10Base-2

The 10Base-2 connection is a BNC connection. Each module is provided with a BNC-T connector and a 50 ohm terminator. Modules configured for 10Base-2 are connected in a multi-drop configuration. Each module has a BNC-T connected at the BNC connector. A coaxial cable is run from the host computer and connected module to module. A 50 ohm terminator must be connected to BNC-T connector at the host computer and the last module in the string. The maximum number of module that may be connected on a 10Base-2 string is 1024. The minimum length of coaxial cable between modules is 0.5 meters. The maximum length of the 10Base-2 string is 1.5 kilometers. It is recommended that IEEE 802.3 coaxial cable (Belden-E 82907 or equivalent) be used, but RG-58 coaxial cable will function correctly.

10Base-T

All DSA 300, 3207, 3307 modules use a Bendix connector at the module, which must be interfaced to the standard RJ-45 connector. A 10Base-T connection may be straight through (pin to pin) or crossover. A straight through cable must be used if the module is connected to a hub. Crossover connections are used if the module is connected directly to the host computer. It is recommended that shielded Category 5 cable be used for 10Base-T cables.

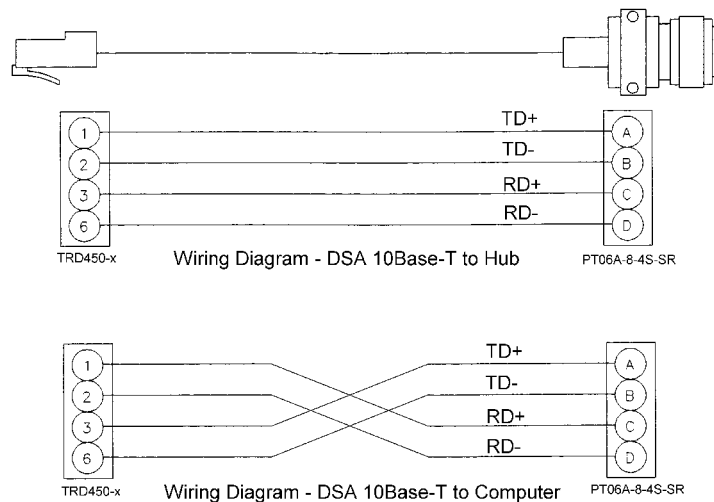


Figure 9 - DSA 3000 Series 10Base-T cables

DSA 3007/3207 SENSOR PACKS

The DSA 3007/3207 modules use the same sensor packs. The sensor packs contain 2 sensors, each with its own input fitting and a vent valve. The sensors in each sensor pack must be the same full scale value. A module may be purchased with no sensor packs. Sensor packs may be installed or removed as needs require. The sensors have a stainless steel diaphragm on the pressure input side to isolate the sensing element from the pressure media (wet/dry). The sensors are mounted with dual o-rings to prevent leakage. Sensor Packs are field replaceable, although individual sensors are not field replaceable. Sensors must be replaced at the Scanivalve factory or authorized repair station.

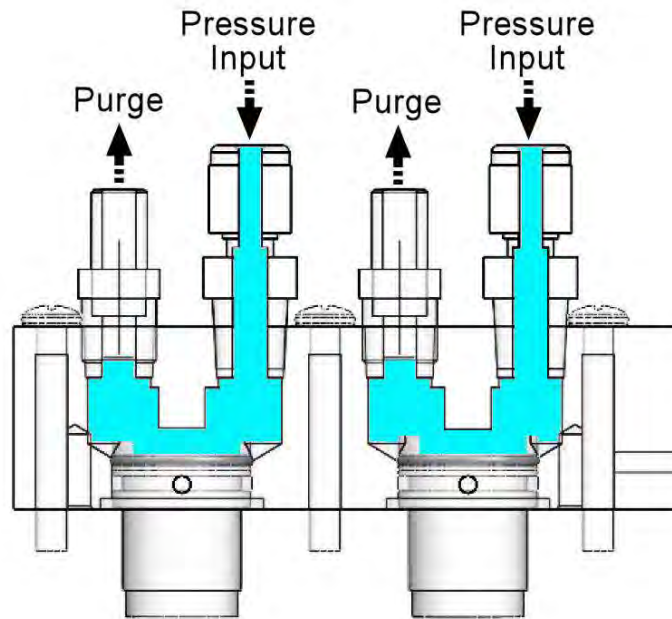


Figure 10 - DSA 3007/3207 Sensor pack cutaway view

DSA 3307 SENSOR PACKS

The DSA 3307 modules use a unique sensor pack designed to measure true differential pressure readings. The sensor packs contain 2 sensors, each with its own positive and negative input fitting and two shunt purge valves, one for each sensor. The sensors in each sensor pack must be the same full scale value. A module may be purchased with no sensor packs. Sensor packs may be installed or removed as required*. The sensors have a stainless steel diaphragm on each side of the sensing element to isolate the sensing element from the pressure media (wet/wet). The sensors are mounted with dual o-rings to prevent leakage. Sensor Packs are field replaceable, although individual sensors are not field replaceable. Sensors must be replaced at the Scanivalve factory or authorized repair station.

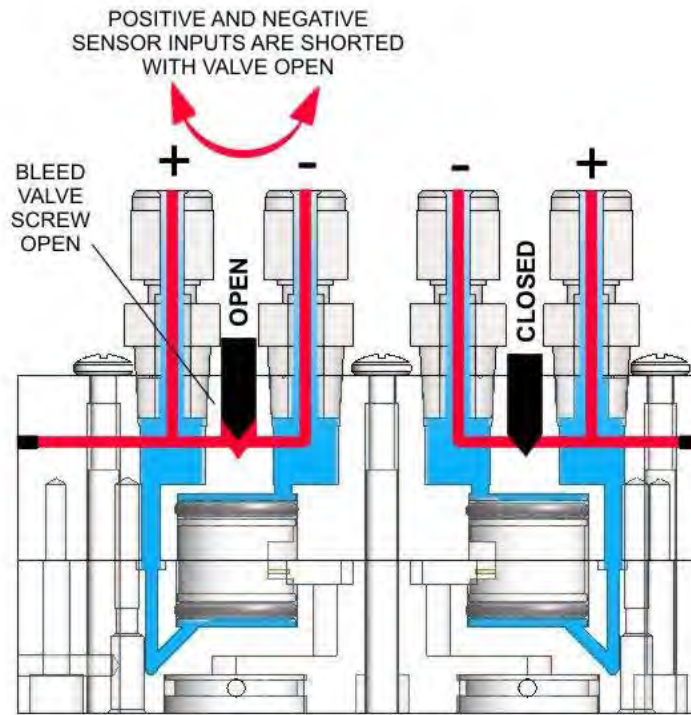


Figure 11 - DSA 3307 Sensor pack cutaway view

*Note: Reconfiguring sensor packs does require the module's coefficients to be updated to reflect the changes.

MAINTENANCE

DSA 3007/3207/3307 Series Modules

The DSA 3007/3207/3307 requires no special maintenance, except for periodic calibrations. The recommended calibration cycle is 6 months. The modules are tested extensively prior to shipment. Many of the components used in the DSA 3007/3207/3307 are the same as, or derived from, components currently in use on existing modules.

An exploded view of the DSA3007 is shown in Figure 12. By physical inspection, the DSA 3207 and 3307 bases are identical. However, the internal sensor excitation is different between the DSA 3007/3207 and the DSA 3307. DSA 3007/3207 sensor packs cannot be installed on a DSA 3307 base, nor can a DSA 3307 sensor pack be installed on a DSA 3007/3207 base.

Circuit Boards

All of the circuit boards in the DSA 3007/3207/3307 are multi layer boards using surface mount technology. Each of the DSA modules contain 3 circuit boards:

Excitation Board/Analog to Digital Converter Board

The Excitation Board is the same board that is used in DSA 3016 pressure modules with one difference. Besides a constant excitation current (1.0ma for DSA 3007/3207 and 1.5ma for DSA 3307)for each sensor, it also outputs a signal proportional to the sensor bridge resistance. This signal is used to determine the temperature of each sensor and ultimately the temperature plane to be used for Engineering Unit conversions. The Analog to Digital converter portion of this board is used to convert the analog signal from the sensors to a digital signal.

Processor Board

The Processor Board is the heart of the module. All of the software and module intelligence resides in this board. The DSA3007 uses an 80186 processor operating at 12 MHz, while the DSA3207 and DSA3307 use a Hitachi RISC processor.

Power Supply Board

The power supply is a DC to DC converter which converts the +24 Vdc input voltage to +5 Vdc and ± 15 Vdc outputs.

Ethernet Interface Board

A limited number of DSA3007 modules also incorporate an Ethernet Interface Board. The Ethernet Interface board adapts the 10Base-2 output of the processor board to 10Base-T if the module is designated for that output. This board is not installed if the module is designated for a 10Base-2 interface.

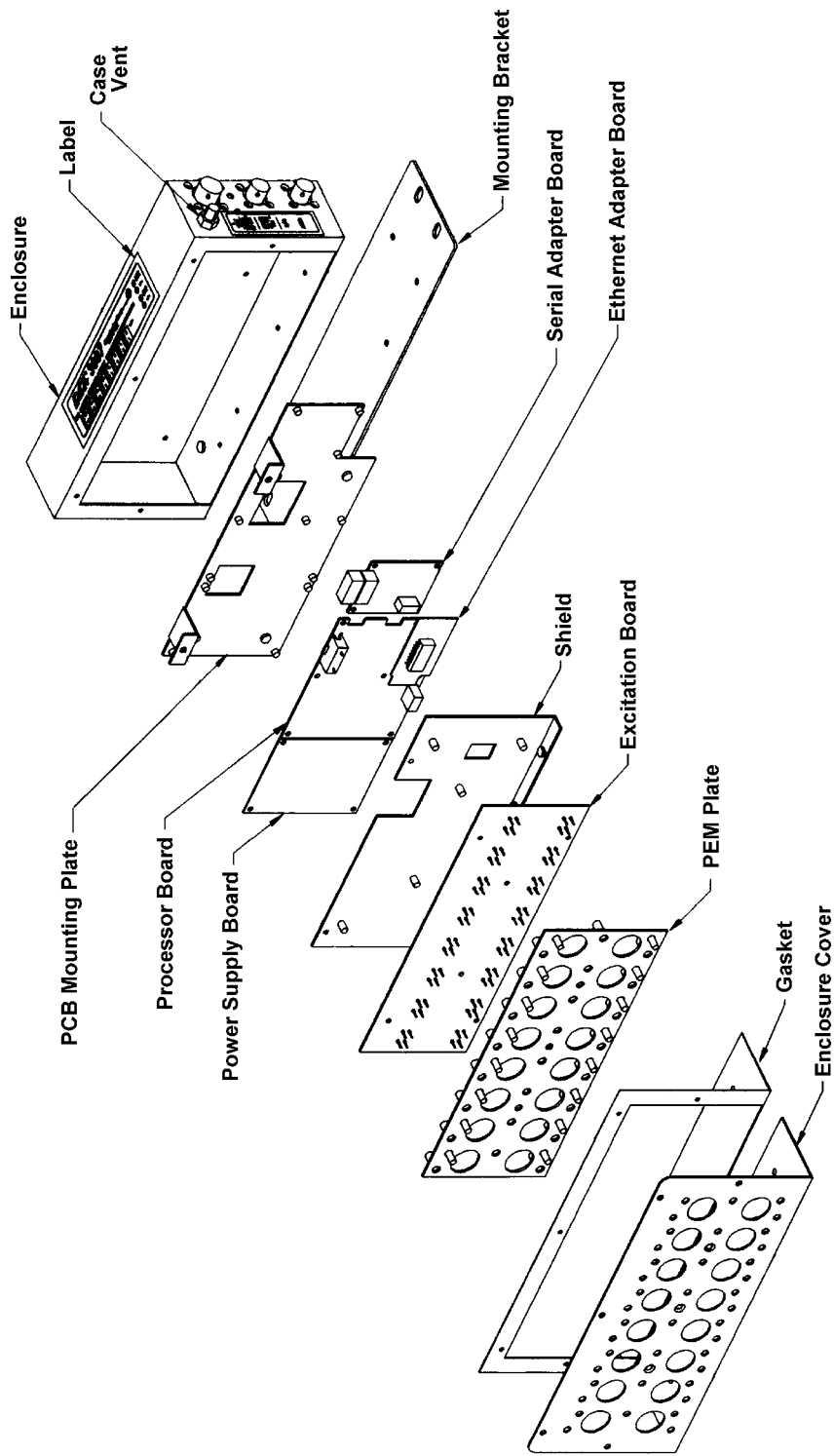


Figure 12 - DSA 3007/3207/3307 Exploded View

SPECIAL PROCEDURES

Sensor Pack Installation or Replacement

The sensor packs used in the DSA 3007/3207/3307 are field replaceable. Replacement of the sensor packs must be accomplished by following the procedures. If the procedures are not followed, the sensors and/or the module may be damaged. It is very important that the user be very familiar with this procedure before attempting to replace a sensor pack.

It should be noted that the internal sensor excitation is different between the DSA 3007/3207 and the DSA 3307. DSA 3007/3207 sensor packs cannot be installed on a DSA 3307 base, nor can a DSA 3307 sensor pack be installed on a DSA 3007/3207 base. The sensor packs will physically fit on the opposing base, but they will not read correctly. For more information or assistance, contact Scanivalve Corp Product Support Department at (800) 935-5151.

Please refer to Figure 13.

1. Place the module on its base.
2. Set the module on its back and carefully remove the mounting screw.
3. Loosen the three(3) captive screws that hold the Sensor Pack to the module.
4. Carefully lift the sensor pack from the module.
5. Set the replacement sensor pack in place and gently press it into place. This should not require much force.
6. Re-tighten the three captive screws and replace the mounting screw. Do not force any of the screws into place. All screws should be able to be tightened without excessive force.
7. The coefficients for the replacement sensors must be merged into the DSA3207 memory. DSALink3 must be used to complete this task.

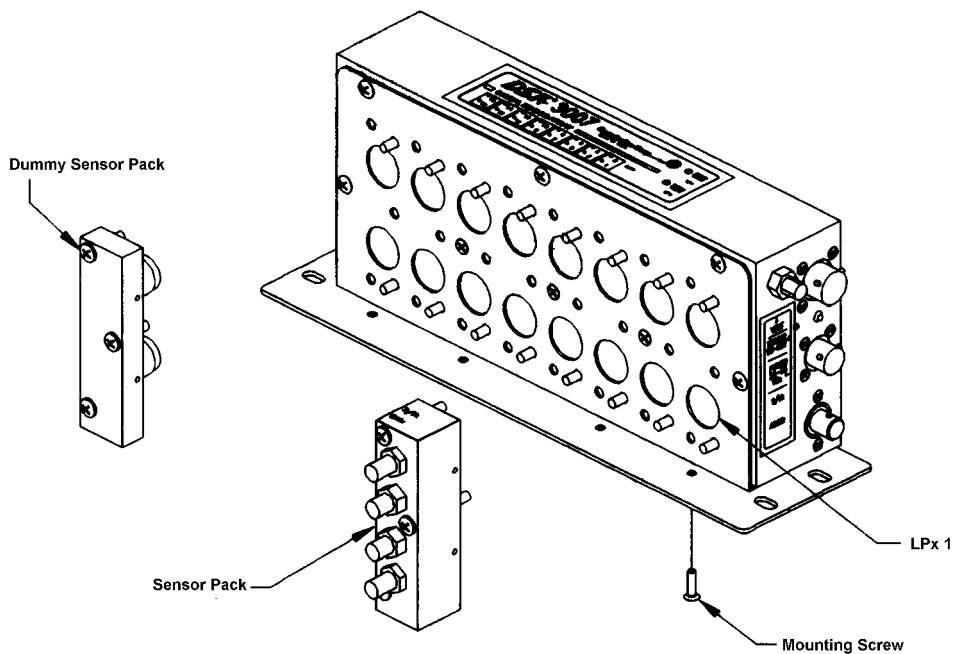


Figure 13 - DSA 3007/3207/3307 Sensor pack replacement

Line Bleeding

The DSA 3007 and 3207 sensor packs are equipped with a bleed valve for each individual sensor. This allows for quick and easy setup of the unit and allows for accurate pressure readings. To bleed any trapped air out of the input lines, simply depress the center of the bleed valve after the lines have been connected. Any trapped air will be allowed to escape.

The DSA 3307 sensor packs include a shunt purge valve. In order to fully purge the system from air, Scanivalve recommend the following purging procedure:

- 1) Connect the liquid source to the (+) input
- 2) Connect a -10psi vacuum to the (-) input
- 3) Open the shunt purge valve with a screwdriver 3 full rotations
- 4) Close the valve to allow a vacuum to build.
- 5) Repeat steps 3 and 4 until continuous bubble-free flow from through the module.
- 6) Ensure the shunt purge valve is closed when complete.



THE DSA 3007/3207/3307 HOUSING IS NOT WATERPROOF.
WIPE UP ANY LIQUID SPILLED ON THE MODULE AS
QUICKLY AS POSSIBLE.

NETWORK CONFIGURATION

The DSA may be configured in three basic network arrangements:

- Isolated
- Integrated
- Sub-network with gateway

Isolated Network

The isolated DSA network provides the fastest possible data throughput because other network traffic has been eliminated. DSA commands are issued from the network client/host and data is directed to the network client/host in UDP format. Data is removed from the client/host via disk or tape. This configuration is ideal for high speed data transfer with data reduction that is handled by the network client/host.

Integrated with System Network

The integrated DSA provides the most accessible data to all network clients. Any client/host on the network may control any or all of the DSA's. Network throughput (TCP/IP) may be reduced because of other network traffic. This configuration is ideal for systems that can tolerate slower data transfer rates but require easy access by multiple client/hosts to each DSA unit.

Sub-Network with Gateway

The DSA sub-network allows high speed data transfer of the sub-network while allowing access by a larger network. The gateway is most effective as a multi homed client/host that can store the DSA data for later access by client/hosts on the main system network.

CLIENT/HOST OPTIONS

The basic client/hosts are:

- PC / TCP/IP
- PC / UDP
- PC / LabVIEW Configuration Utility(Scanivalve PN 155384-1)
- PC / LabVIEW Deveolpmet Kit (Scanivalve PN 155385-1)
- PC / LabVIEW Driver (for ver 8.0 and earlier) (Scanivalve PN 155267-1)
- PC / DSALink3 (Scanivalve PN 155293-1)
- PC / OPC Server (Scanivalve PN 155282-1)
- PC / Windows HyperTerminal

PC-TCP/IP

A user may write their own interface. Scanivalve Corp. supplies a Software Specification with each DSA module. This interface should allow the user to:

- Issue commands to any or all DSA modules on the network.
- Display returned information or scan data from the DSA modules.
- Write returned information or scan data to the client/host in TCP/IP format.
- Determine the addresses of all DSA modules on the network.

PC-UDP

A user may write their own interface. Scanivalve Corp. supplies a Software Specification with each DSA module. This interface should allow the user to:

- Issue commands to any or all DSA modules on the network.
- Display returned information or scan data from the DSA modules.
- Write returned information or scan data to the client/host.in UDP format (no handshaking)
- Determine the addresses of all DSA modules on the network.

PC-LabVIEW

Scanivalve Corp. offers a LabVIEW Development kit for users desiring to customize a LabVIEW driver for DSA modules. The Development kit is compatible with LabVIEW 2009 (ver 8.2 and later). A LabVIEW Configuration utility is also offered that gives the user to configure the DSA unit and is based on a LabVIEW 2009 runtime engine. Scanivavle also offers a LabVIEW driver for versions 8.0 and before.

PC-DSALink3

Scanivalve Corp. has written a communications program to interface a PC to a DSA module. This program is designed to operate in Windows 2000 or Windows XP. This program permits a user to connect to a DSA module, modify the configuration variables, upload or download coefficients, take data, and save data to a file.

PC-OPC Server

Scanivalve Corp. has written a OPC Server driver to interface a PC running in an OPC environment to a DSA module. This program is designed to operate in Windows 2000 or Windows XP.

PC-Windows HyperTerminal

HyperTerminal is a Windows program. It is provided as part of the Windows 2000, XP and Vista Operating Systems. This program permits a user to connect to a DSA module, modify the configuration variables, upload or download coefficients, take data, and save data to a file. It is a text based command line program.

For more information, contact Scanivalve Corp, the Product Support Department.

DSA NETWORK ADDRESSING

Each DSA module has the capability to accept commands in Unicast (only one DSA accepts command)

Each DSA module has a unique, factory set, 48 bit physical Ethernet address. When running TCP/IP protocol the DSA modules support ARP (address resolution protocol) to enable the client/host to determine the relationship between the IP address and the Ethernet address. The IP address is user assignable.