

# SSS/MSS SCANIVALVE REPLACEMENT Pressure Measurement

Application

Note 3

## General Description

There are hundreds of SSS Single Scanivalve Systems and MSS Multiple Scanivalve Systems operating worldwide. These reliable products are 1970's vintage technology. Newer Intelligent Scanivalve products are available that directly replace these older, obsolete products. Unlike the models SSS & MSS that mechanically multiplexed many pressure inputs into 1 pressure transducer, the newer DSA products utilize a pressure transducer for each pressure input.

## Pressure Measurement

The Model DSA3016 Pressure Measure System is a 19 inch rack mounted enclosure that accepts 1 up to 8 each 16 channel pressure modules. One enclosure with 4 each DSA3016 pressure modules (64 transducers total) will replace a model SSS-64C Scanivalve. Each enclosure can accept up to 128 inputs. Each transducer is temperature compensated and field replaceable. The system intelligence comes from the embedded PC. It facilitates communication and engineering unit conversion to achieve  $\pm 0.1\%$  FS measurement accuracies. Front access pneumatic input fittings are 1/8 inch steel swagelok fittings.

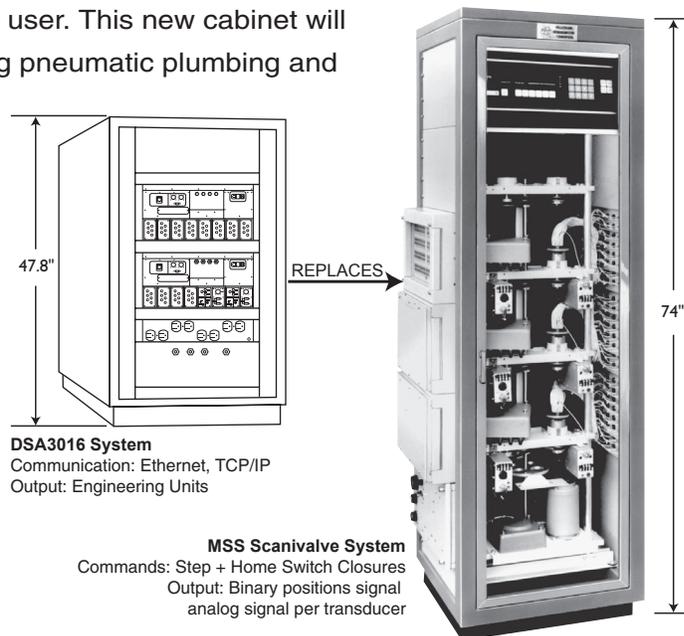
When exact replacement dimension are required, Scanivalve can mount the DSA3016 enclosure in a cabinet with 1/4 inch (6mm) steel swagelok fittings on the side of the cabinet. This allows the user to remove the MSS-48 or MSS-64C and replace it with the new DSA3016 cabinet in the same location. No plumbing changes will be required by the user. This new cabinet will interface with the user's existing pneumatic plumbing and fittings. The cabinet mounting them becomes a turnkey system.

## Recommended Models

DSAENCL4000

DSA3016 pressure module  
(each one contains 16 pressure transducers)

Specify if items above are to be mounted into a cabinet for a turnkey system.



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## Benefits of Upgrade to DSAENCL4000 series products:

1. Ease of Interfacing to network, host, PLC, PC, etc.
2. Communication is either a digital twisted pair Ethernet cable that is immune to noise over long distances, or RS232. The mechanical Scanivalves required analog communication and constant computer control.
3. The sampling speed of the DSA3016 is user configurable. It can scan from 1Hz per channel per second up to 500Hz per channel per second. The typical speed of a MSS-64C Scanivalve allowed each transducer to be updated once every 16 seconds.

### Temperature Measurement

Some model MSS cabinets in the field also included a thermocouple input panel and scanner. Scanivalve has an Intelligent Thermocouple Scanner that can replace this portion of the Scanivalve. The model is DTS3250. It is a one box solution that includes an isothermothermal block (cold junction), 22 bit A/D and a microprocessor. Like the DSA3016, it also communicates Ethernet TCP/IP and outputs either degrees C or F. Reference the DTS3250 data sheet on our website, [www.scanivalve.com](http://www.scanivalve.com) for more detailed information.

### Communication

Communication is industry proven Ethernet. TCP/IP protocol, 10baseT. Data are output in temperature compensated engineering units. A serial communication port is also available. Contact Scanivalve at 800-935-5151 regarding a DSA OPC server. Optional LabVIEW software drivers are also available.



**DTS 3250**

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