

# GLE/SmartZOC-100

Ethernet-based Data Acquisition System for Scanivalve's ZOC Electronic Pressure Scanners

## Main Features

- Ethernet I/O interface & auxiliary
- RS232 data output
- AD Resolution: 16 bit
- Scan Rate: up to 2000 S/channel/s
- System Accuracy: 0.1% or better
- Zero and Gain Calibration capability
- Wide Temperature Range
- Power Supply: 9 ÷ 36VDC
- Low Power consumption
- Rugged and RF shielded enclosure
- Easy to use, Windows based software package including: system set-up, data calibration and errors compensation, data display and storage



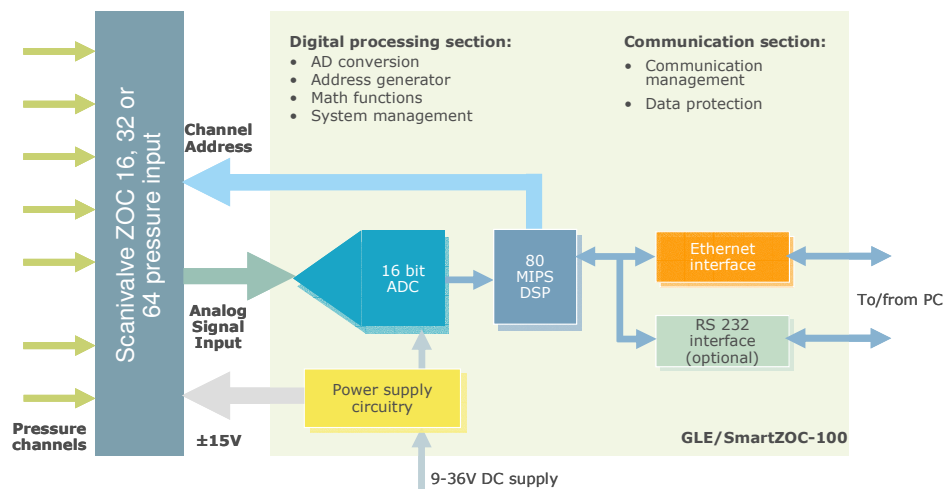
## Typical Applications

- Flight Testing
- Wind Tunnels
- Turbine Engine Testing
- Pressure Measurement
- Automotive/Car Industry
- Aerospace
- Railway
- Testing and R&D

**GLE/SmartZOC-100** is a miniaturized data acquisition unit specifically designed to be interfaced with the Scanivalve's ZOC Electronic Pressure Scanner Modules. This unit can be directly connected to one 16, 32 or 64 channel ZOC Pressure Scanner providing: the regulated and isolated voltage supply to ZOC module, the control of the scanning sequence, the conditioning for the analog pressure transducers and for the ZOC's internal temperature sensor, the 16 bit A/D conversion of the input signals. The acquired data are then made available to the Ethernet bus or the auxiliary RS232 interface output.

Thanks to the continuous monitoring of the ZOC's internal temperature, it is possible to perform a very accurate on-line correction of the pressure transducers temperature drift.

ZOC-ScanSW software allows the definition of the measurement and acquisition set-up as: the scanning speed, the number of active channels, the communication interface parameters, the preferred data output interface (Ethernet or RS232), the engineering unit definition, the data averaging strategy, the numerical or graphical data display and many other options. The defined hardware set-up is saved to the internal flash memory of the GLE/SmartZOC-100 and it is automatically retrieved during its power-on to assure prompt and reliable operative condition. Thanks to its robust construction, ID/SmartZOC-100 is particularly suitable in all those applications where space is a premium, ruggedness and wide temperature range are necessary and especially where high performances in terms of reliability, accuracy and measurement speed are mandatory requirements.



## GLE/SmartZOC-100 Technical General specifications

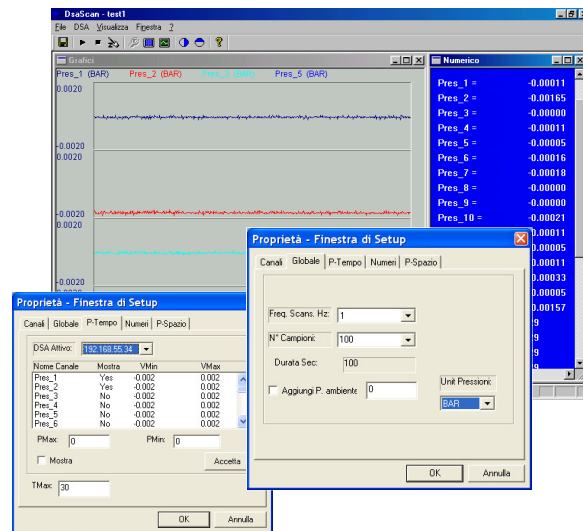
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|-----------------------------------|--|
| Pressure Scanner Compatibility    | ZOC17, ZOC22B, ZOC23B, ZOC33, , ZOCEIM   |
| Digital Interfaces                | Ethernet (TCP/IP protocol) for system programming and data output; auxiliary RS232 data output selectable speed up to 115 k baud; continuous or polled mode.                                     |
| System Accuracy                   | 0.08 % FS or better, accordingly to the used Pressure Scanner  |
| A/D Resolution                    | 16 Bit   |
| Scan-Rate                         | Ethernet data transfer: up to 2000 S/Ch/s with 16 ch ZOC, up to 500 S/Ch/s with 64 ch ZOC.<br>RS232 data transfer: in excess of 200 S/Ch/s with 16 ch ZOC, in excess of 50 S/Ch/s with 64 ch ZOC |
| Power Supply                      | 9 ÷ 36 VDC @ 6 Watt max including ZOC module   |
| ZOC Power Supply                  | ±15 VDC, 150mA max (internally regulated and isolated)   |
| Temperature Range                 | Extended from -40 to +70°C   |
| Humidity                          | Up to 95% non-condensing   |
| Acceleration, Shock and Vibration | Designed to meet: 15 g all directions / 50 g rms @ 11 ms / 10 g rms, 10 ÷ 2000 Hz all directions   |
| EMI/EMC:                          | RF proof metal shielded enclosure  |
| Size and Weight                   | 95 x 65 x 35 mm / 250 g, approx.   |
| I/O Connectors                    | Power: 3 pins MS bayonet; Pressure Scanner: 15 pins D type double density;<br>Ethernet: RJ45 socket; RS232: 9 pins D type  |

*Due to continuous developments specifications subject to change without prior notice.*

**ZOC-ScansW** is a very user friendly software package developed to operate with the GLE/SmartZOC-100 data acquisition unit.

It allows the set-up of the hardware configuration and the acquisition parameters, the graphical and numerical on-line data display and the data storage functions according to different files format (ASCII, Binary and FAMOS/Look, others on request).

The communication protocol is TCP/IP over a standard Ethernet bus in order to support a fast data throughput; this software includes the on-line temperature corrections/linearization and the Engineering Unit conversion.



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