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## MULTISCAN++ S2



## Datasheet

DS5046 Rev. 1 23/03/2023 Sensitron S.r.l., Viale della Repubblica 48, Cornaredo (MI) sales@sensitron.it TEL. +390293548155 FAX. +390293548089





The MULTISCAN++S2 is a gas detection control unit designed to meet the widest range of flexibility required by the market. The gas panel is certified SIL2 and ATEX following the standards EN 60079-0 and EN 60079-29-1. The control panel is based on a powerful microprocessor which provides a wide range of self-diagnostic procedures to detect and locate possible faults. It can manage up to 32, 64, 128 or 256 gas detectors (according to the four different versions). The detectors can be either of addressable type, directly connected on the buses, or 4-20 mA analogical types connected via 8-input STG/IN8-S2 remote modules. The system architecture also provides up to 516 freely programmable Open Collector outputs provided by STG/OUT16-S2 modules, always connected on the RS485 bus. Also 8 relays onboard the panel are included.

The gas panel can be placed in 19" 6U rack, or in a plastic box complete with 27.6 Vdc 4 A power supply.

MULTISCAN++S2 is SIL2 and it is ATEX marked as follows:

**C €** 0051 (Ex) II (2) G



| Functionalities       |   |
|-----------------------|---|
| Programming           | Configuration with Sensitron software                           |
| Operating levels      | 3, set via password   |
| Set / Unset detectors | Possibility of unset one or more channels for field maintenance |



| Supervision          | Efficient Modbus protocol for system supervision                           |  |
|----------------------|--|--|
| Event log            | The event log can be visualised from the gas panel or by the software      |  |
| Date and time        | Internal clock with backup to keep the date and time even after a shutdown |  |
| Visual indications   | LCD display<br>18 status LEDs  |  |
| Acoustic indications | Buzzer 60 dB at 1m   |  |
| Front panel buttons  | Numbers from 1 to 9, ENT ESC and four directional buttons                  |  |



| Electrical data        |   |
|------------------------|---|
| Power supply           | Box version: power supply with V. =27.6 Vdc / I. =4A, V. =110 Vac or 220 Vac<br>selectable by a manual switch.<br>Possibility to place two 12V 7Ah batteries.<br>Rack version: connect to an external 24Vdc power supply  |
| Absorption             | 200 mA  |
| Available current      | 3 A for field connections<br>MTS256/128/64: available two auxiliary power supply of 1.1 A each one<br>MTS32: available an auxiliary power supply of 1.1A  |
| Input modules          | STG/IN4-OUT4-S2: 4 inputs 4-20mA<br>STG/IN8-S2: 8 inputs 4-20 mA  |
| Output modules         | STG/IN4-OUT4-S2: 4 relays outputs<br>STG/OUT16-S2: 16 Open Collector outputs, convertible into relays with the<br>STG/8REL module   |
| Inputs                 | 8 inputs 4-20 mA on board, additional inputs available via the remote modules.<br>Sensitron gas detectors can be also connected directly on RS485 bus. The total<br>inputs number depends on the gas panel model:<br>Multiscan++ 256: up to 256 inputs<br>Multiscan++ 128: up to 128 inputs<br>Multiscan++ 64: up to 64 inputs<br>Multiscan++ 32: up to 32 inputs |
| Outputs                | 8 relays on board<br>Additional outputs available via the remote modules, the total outputs number<br>depends on the gas panel model:<br>Multiscan++ 256: up to 516 outputs<br>Multiscan++ 128: up to 256 outputs<br>Multiscan++ 64: up to 128 outputs<br>Multiscan++ 32: up to 64 outputs  |
| Relays contact ratings | 10A a 250 Vac main board, 16A 250 Vac IN4-OUT4 and 8REL modules   |
| RS485 ports            | Multiscan++ 256/128: 4 RS485 ports<br>Multiscan++ 64: 2 RS485 ports expandable to 4<br>Multiscan++ 32: 2 RS485 ports  |
| Serial ports           | 1 x RS232 for programming, supervision and firmware updating<br>1 x printing parallel port (only Multiscan++ 256/128/64)  |
| Communication protocol | Galileo or Modbus for field communication<br>Modbus for the supervision   |

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| Environmental conditions  |                            |  |
|---------------------------|----------------------------|--|
| Temperatura di stoccaggio | -20 / +60°C                |  |
| Temperatura operativa     | 0 / +50°C                  |  |
| Umidità di funzionamento  | 15 / 85% RH non condensata |  |

| Box         |   |
|-------------|---|
| Material    | ABS or aluminium rack   |
| Dimensions  | Plastic box 470x426x148 mm r rack 19" 6 units                   |
| Weight      | Rack version: 4.5 kg<br>Box version: 6.6 kg (without batteries) |
| Cable entry | Box version: 4 preformed holes                                  |
| Wall fixing | Box version: supplied with 4 mounting brackets                  |

| EMC  | EN 50270:2015  |  |
|------|--|--|
| ATEX | ATEX Directive 2014/34/UE<br>EN IEC 60079-0:2018<br>EN 60079-29-1:2016 |  |
| SIL  | EN 61508:2010 parts 1, 2, 3, 4, 5, 6, 7<br>EN 50402:2017               |  |



| Product codes   |  |
|-----------------|--|
| STMTS/S2-256B   | 256 Analog 4-20 mA gas detectors connected through remote 8-input modules or addressable gas detectors daisy chained to the RS485 control panel's loops and 8 x 4-20 mA inputs on-board the panel. 8 relay outputs and up to 512 O/C or relay outputs via remote modules.          |
| STMTS/S2-256    | Rack version of STMTS/S2-256B  |
| STMTS/S2-128B   | 128 Analog 4-20 mA gas detectors connected through remote 8-input modules<br>or addressable gas detectors daisy chained to the RS485 control panel's loops<br>and 8 x 4-20 mA inputs on-board the panel. 8 relay outputs and up to 256 O/C or<br>relay outputs via remote modules. |
| STMTS/S2-128    | Rack version of STMTS/S2-128B  |
| STMTS/S2-64B    | 64 Analog 4-20 mA gas detectors connected through remote 8-input modules<br>or addressable gas detectors daisy chained to the RS485 control panel's loops<br>and 8 x 4-20 mA inputs on-board the panel. 8 relay outputs and up to 128 O/C or<br>relay outputs via remote modules.  |
| STMTS/S2-64     | Rack version of STMTS/S2-64B   |
| STMTS/S2-32B    | 32 Analog 4-20 mA gas detectors connected through remote 8-input modules<br>or addressable gas detectors daisy chained to the RS485 control panel's loops<br>and 8 x 4-20 mA inputs on-board the panel. 8 relay outputs and up to 64 O/C or<br>relay outputs via remote modules.   |
| STMTS/S2-32     | Rack version of STMTS/S2-32B   |
| STG/MTSS2-CONF  | Windows PC software for MULTISCAN++S2 control panel programming.   |
| STG/IN4-OUT4-S2 | Remote module with 4 inputs 4-20mA and 4 output relays   |
| STG/IN8-S2      | High safety 8-input remote module  |
| STG/OUT16-S2    | High safety 16-output remote module  |
| STG/8REL        | Plug and play relay board to be connected to STG/OUT16 to provide 8 relay outputs  |
| STG/SER++       | Additional Serial board to implement serial lines  |
| STG/TCPIP-C     | TCP/IP interface for LAN connection  |
| AL11/276V5      | Metal Cabinet with enclosed a 27 Vdc 5A Power Supply   |
| STG/BOX         | IP55 Plastic box to house STG/IN8-S or STG/OUT16-S card  |
| STG/32-85       | RS232/RS485 Interface for PC connection on RS485 line  |

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Mechanical drawings

Box version





Rack version





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