Multiparameter analyzer for analog, digital and Memosens sensors

Stratos Evo

The Art of Measuring.
With its exceptional range of functions and application-oriented design, Stratos is well-established in the entire chemicals industry, in process and power plant engineering and in the pharmaceutical and biotechnology industries.

Suitable for all conceivable indoor and outdoor scenarios, the Stratos brand is today a synonym for innovation and reliability in process applications around the world – for example in starch production in Germany, sugar manufacturing in Brazil, cooling water monitoring in France or medicine production in Belgium.

The next stage of evolution for analyzers: Stratos Evo. A multiparameter device for operation with digital and analog sensors.

One device for all parameters and all sensors

Depending on requirements, Stratos Evo can be simply switched over to different process variables.

The integrated HighPower sensor supply enables the operation of optical oxygen sensors which are immune to interference.

For measurements with analog sensors, Stratos Evo can be adapted to the desired process variable using measuring modules.
The digital platform

The digital functionality eliminates a large number of interferences which can occur with analog devices. The use of sensor cables with a length of up to 100 m and the advanced diagnostics options are just two advantages of the digital technology.

Power supply for external 2-wire transmitters

Another major benefit of the High-Power sensor supply is the option to supply external 2-wire transmitters, e.g. pressure or flow transmitters. The respective signal can be displayed and processed via the 4 to 20 mA input.

Device status at a glance

Stratos Evo features intuitive operation with color-coded user guidance. The high-contrast widescreen display indicates the respective operating states in six different colors: Normal measuring mode is backlit in white while information mode displays are illuminated in green. The diagnostics menu, maintenance request and the hold mode are each indicated by unique colors. The alarm status is indicated in a vibrant red, a flashing red display is a sign of impermissible entries or incorrect passcodes. Scrolling plain text messages and self-explanatory icons simplify operation.

Explosion protection for application in Zone 2

The special circuit technology ensures low self-heating and an extremely high reliability. Stratos Evo is certified to ATEX / IECEx and approved for use in Zone 2 hazardous environments.

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IP 67

NEMA 4X
Measuring modules for operation with analog sensors
By simply plugging in a measuring module, Stratos Evo can be extended to work with analog sensors.

Easy assembly
Stratos Evo is suitable for wall, pipe or panel mounting. The rear unit can be pre-assembled; all parts are easily accessible thanks to the large terminal compartment.

Facts
- Multiparameter analyzer for analog and digital sensors as well as for contactless digital Memosens sensors
- One device for pH/ORP, conductivity or oxygen (configurable)
- Measuring modules for operation with conventional analog sensors
- HighPower sensor supply for
  - operating digital optical oxygen sensors
  - supplying external 2-wire transmitters
  - measuring and monitoring the flow using an external flow sensor
- Pressure correction for oxygen measurements
- 2-channel measurement: Memosens (pH/pH or pH/Oxy) or analog (Cond/Cond)
- Comprehensive features and flexibility enable universal application
- Signaling operating states by a multi-color backlit display
- Protective pane made of safety glass
- Intuitive operation with easy-to-understand icons
- Logbook (200 entries) AuditTrail
- Enhanced sensor diagnostic with wear indication, remaining lifetime, operating time, CIP/SIP counter and adaptive calibration timer
- HART communication
- IECEx and ATEX Zone 2 approvals
- Extremely robust, UV-resistant molded enclosure (IP 67)
- VariPower broad-range power supply for global use

3-year warranty!
Memosens

Interference-free coupling
The Memosens inductive sensor connector system transfers both energy and data without contact between electrochemical sensors and analyzers.

Pre-calibrated sensors
By using pre-calibrated sensors, Memosens ensures maximum availability and lower maintenance requirements at the point of measurement.

Intelligent diagnostics
Memosens allows saving and analyzing process-related data directly in the sensor.

Memosens. The benefits at a glance:
- Plug & Measure – Sensor replacement in seconds with pre-calibrated sensors
- Simple and safe plugging with bayonet coupling
- Contactless, digital data transfer
- All key data available in the sensor
- Longer sensor service life
- Error-free measurements, even in the toughest conditions
- Just one cable system for all sensors
- Measured values not influenced by excessively long cables

www.knick-international.com/memosens
# Stratos Evo

## Product Range

<table>
<thead>
<tr>
<th>Stratos Evo</th>
<th>Order No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stratos Evo 4-wire, multiparameter, digital basic unit</td>
<td>A402N</td>
</tr>
<tr>
<td>Stratos Evo 4-wire, multiparameter, digital basic unit, Ex Zone 2</td>
<td>A402B</td>
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</tbody>
</table>

### Stratos Evo analog modules

<table>
<thead>
<tr>
<th>Module Type</th>
<th>Order No.</th>
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</thead>
<tbody>
<tr>
<td>pH/ORP module</td>
<td>MK-PH 015N</td>
</tr>
<tr>
<td>pH/ORP module, Ex Zone 2</td>
<td>MK-PH 015B</td>
</tr>
<tr>
<td>COND module</td>
<td>MK-COND 025N</td>
</tr>
<tr>
<td>COND module, Ex Zone 2</td>
<td>MK-COND 025B</td>
</tr>
<tr>
<td>CONDI module</td>
<td>MK-CONDI 035N</td>
</tr>
<tr>
<td>CONDI module, Ex Zone 2</td>
<td>MK-CONDI 035B</td>
</tr>
<tr>
<td>OXY module</td>
<td>MK-OXY 045N</td>
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<tr>
<td>OXY module, Ex Zone 2</td>
<td>MK-OXY 045B</td>
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### Stratos Evo 2-channel modules, analog

<table>
<thead>
<tr>
<th>Module Type</th>
<th>Order No.</th>
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</thead>
<tbody>
<tr>
<td>COND/COND module</td>
<td>MK-CC 065N</td>
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</table>

### Stratos Evo 2-channel modules, Memosens

<table>
<thead>
<tr>
<th>Module Type</th>
<th>Order No.</th>
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</thead>
<tbody>
<tr>
<td>Memosens module</td>
<td>MK-MS 095N</td>
</tr>
<tr>
<td>2nd channel (pH/pH, pH/OXY)</td>
<td></td>
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</tbody>
</table>

### TAN options

<table>
<thead>
<tr>
<th>Feature</th>
<th>Order No.</th>
</tr>
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<tbody>
<tr>
<td>HART communication</td>
<td>SW-A001</td>
</tr>
<tr>
<td>Logbook</td>
<td>SW-A002</td>
</tr>
<tr>
<td>Extended logbook (Audit Trail)</td>
<td>SW-A003</td>
</tr>
<tr>
<td>Oxygen trace measurement</td>
<td>SW-A004</td>
</tr>
<tr>
<td>Current input and 2 digital inputs</td>
<td>SW-A005</td>
</tr>
<tr>
<td>ISM digital (for pH and oxygen process parameters)*</td>
<td>SW-A006</td>
</tr>
<tr>
<td>Operation with Pfaudler pH sensors</td>
<td>SW-A007</td>
</tr>
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</table>

### Accessories

<table>
<thead>
<tr>
<th>Accessory</th>
<th>Order No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipe-mount kit</td>
<td>ZU 0274</td>
</tr>
<tr>
<td>Panel-mount kit</td>
<td>ZU 0738</td>
</tr>
<tr>
<td>Protective hood</td>
<td>ZU 0737</td>
</tr>
</tbody>
</table>

* MK-PH or MK-OXY module required
Measuring modules for analog measurements

Oxy

%,, mg/l, °C

Cond

mS, %, SAL, °C

pH

%,, mg/l, °C

2nd channel (Memosens), safe area

Differential conductivity (CC), safe area

Stratos Evo
A 402 N
A 402 B (Ex)

Contact Wash Alarm
Limit value
min max

HighPower supply
3.1 V, 7.5 V
15 V, 24 V

Slot for analog modules

VarPower power supply A 402 N
80 ... 230 V AC
24 ... 60 V DC

Power supply A 402 B (Ex)
24 V DC

HART

0/4 ... 20 mA

Max. val./Temp.

Min. val./Temp.

Pressure/Temp.

Flow

Connected with HighPower supply

Contacts

Pop on/Off

Alarm

Max. limit value

Min. limit value

Optical oxygen sensor

Sensor cleaning

Water

Hilfsenergie

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Wiring Example
Stratos
The Art of Expertise

Stratos Evo
4-wire devices, analog, digital and Memosens

Stratos Pro
2-wire devices, analog, digital and Memosens

Stratos MS
4-wire devices, digital and Memosens

Stratos Eco
4-wire devices, analog