EMCO Conductivity Analyzer type 560

APPLICATION

The EMCO Conductivity Analyzer type 560 is designed to precisely monitor water and process fluids, ranging from ultra pure water (UPW) to with weak acids or bases in the process industry.

CONSTRUCTION

The Analyzer is extremely easy to use due to the simple and user-friendly menu structure with menus in clear text for easy configuration. Just select the appropriate compensation curve ranging from UPW to NaOH.

The EMCO Conductivity Analyzer is very suitable for harsh environment in the process industry due to the stainless steel enclosure and IP67 protection class in combination with hinged cover.

The Analyzer can be mounted in a panel (panel opening 138 x 138 mm) on a wall (with bracket) or on a 2” pipe.

The Analyzer can be supplied with hinged look through cover.

FEATURES

The EMCO Conductivity Analyzer and the 4 electrode sensor series 600 with internal electrodes for smaller pipe sizes or with external electrodes for larger pipe sizes or vessels are extremely resistant to scale build-up, due to their design.

The analyzer offers high sample rate and an internal damping lowers the spikes.

Trend curve on output signal with selectable time period up to 8 hours for easy check.

The display is light blue but turns red in case of analyzer/sensor failure.

NAMUR NE43 compliant error detection.

Galvanic isolated protective & measurement ground for elimination of ground loop noise.

Memory back up for all parameters.

Loop powered version is available, but without display back light and alarm relays.

All vital functions are pass word protectable

Low power consumption, max. 4 VA

User friendly menu with number identified menu programs programmable in clear text.

Easy understandable icons, which reports the successful run of the process and alarm points.

An external temperature sensor can be connected.
FUNCTIONALITY

Various recipes for common fluids are available

ENVIRONMENT

Temperature limits
Operation : - 25 to + 65 ºC
Storage : - 40 to + 80 ºC
Humidity : max. 80 Rh, non-condensing.

DOCUMENTATION

Instruction manual

QUALITY ASSURANCE

EMCO Controls is certified according to : ISO 9001- 2015,
Pressure Equipment Directive PED Module H,
Welding quality certificate to EN 3834-2
**TECHNICAL SPECIFICATION**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material, enclosure</td>
<td>AISI 316L, aluminium.</td>
</tr>
<tr>
<td>Analog signal</td>
<td>dual 4-20mA, user programmable, galvanic isolated</td>
</tr>
<tr>
<td>Alarm</td>
<td>dual relays, 230Vac 6Amp, change over, galvanic isolated.</td>
</tr>
<tr>
<td>Communication</td>
<td>Profibus PA</td>
</tr>
<tr>
<td></td>
<td>HART 7 communication protocol</td>
</tr>
<tr>
<td></td>
<td>Foundation Fieldbus is pending</td>
</tr>
<tr>
<td>Measuring range</td>
<td>0,05 μS/cm – 1500 mS/cm, full auto range</td>
</tr>
<tr>
<td>Temperature range</td>
<td>-35°C - +240°C, Pt1000 or Pt100</td>
</tr>
<tr>
<td>Display</td>
<td>Backlit dot matrix (LCD) (line powered)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>144 x144 mm mounting, for panel, wall and pipe.</td>
</tr>
<tr>
<td>Line powered</td>
<td>65-265 Vac or 9-36 V DC</td>
</tr>
<tr>
<td>Loop powered</td>
<td>22-36 Vdc, 2 wire (no alarms, no display light is available)</td>
</tr>
<tr>
<td>Sensor connection</td>
<td>9 pole terminal connection. Option: separate terminal box.</td>
</tr>
<tr>
<td>Built in recipes</td>
<td>most common weak acids, bases, ultrapure water (UPW) and salt solutions</td>
</tr>
<tr>
<td>Direct access to</td>
<td>Trend, diagnostic, setup menu.</td>
</tr>
<tr>
<td>Protection</td>
<td>IP65, with hinged cover IP7</td>
</tr>
<tr>
<td>EMC/EMI</td>
<td>to EN61326</td>
</tr>
<tr>
<td>Type of sensors</td>
<td>4 electrode and 2 electrode.</td>
</tr>
<tr>
<td>Limits of cell constant</td>
<td>0,01 – 1,0</td>
</tr>
<tr>
<td>Damping</td>
<td>internally averaging 5 cycles</td>
</tr>
<tr>
<td>Lightening Suppression</td>
<td>surge protection on all I/O’s and power lines</td>
</tr>
<tr>
<td>Hazardous area</td>
<td>ATEX II 2G Ex ib IIB T4, only loop powered with 22 Vdc supplied from Zener barrier type P&amp;F Z722.</td>
</tr>
<tr>
<td>SIL 2 approval</td>
<td>under preparation</td>
</tr>
</tbody>
</table>
MOUNTING OPTIONS

Wall mounting

Panel mounting

Pipe mounting

Mounting plate can in all cases be rotated 90°

Dimensions in mm

Panel cut-out
# ANALYZER CODING

1. **Type 560**

2. **Housing**
   - Aluminium: code AL
   - AISI 316: code SS

3. **Mounting**
   - Wall: code WA
   - Panel: code PA
   - Pipe: code 2P

4. **Protection cover**
   - Without: code 00
   - With: code 01

5. **Power supply**
   - 65 – 265 Vac: code A
   - 9 – 36 Vdc: code B
   - 22 – 36 Vdc Loop powered: code C
   - 22 Vdc Ex Loop powered: code D

6. **Communication**
   - Analog: code AN
   - HART 7: code HA
   - Profibus PA: code PA
   - Foundation Fieldbus: code FF (please ask)

7. **Classification**
   - None: code NO
   - ATEX Eex ib IIC T6: code AT
   - SIL 2 Approval: code SI (please ask)

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**EMCO type 560**

code 560-AL-WA-00-A-AN-NO

conductivity analyzer

- **measuring range**: 0 - 1500 mS/cm
- **AL material, housing**: aluminum
- **WA mounting**: wall
- **00 protection cover**: without
- **A power supply**: 65 - 265 Vac, alarm: 2 x SPDT
- **AN outputs**: 2 x 4-20 mA
- **NO classification**: None

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