P20G SEPARATOR

- Full galvanic isolation of the input, output and auxiliary supply.
- Matching of analog signals in automation systems.
- Fully configurable through the PD14 programmer. By means of the programmer, one can change the input type, output type, measurement averaging time and recalibrate the analog output according to the output individual characteristic.
- Small dimensions.
- 0.2 accuracy class.

FEATURES:

PD14 compatible
LPConfig compatible
Y=2a×x+b
individual characteristic

EXAMPLE OF APPLICATION

Separation between PLC analog inputs

INPUTS:

DC
-20...20 mA
-10...10 V

OUTPUTS:

-20...20 mA
-10...10 V

GALVANIC ISOLATION:

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• Small dimensions.
• 0.2 accuracy class.

FEATURES:

NEW

Output kind
Properties
Remarks
-20...20 mA
R_{load} \leq 500 \Omega
Conversion class: 0.2

-10...10 V
R_{load} \geq 500 \Omega

EXTERNAL FEATURES

Weight
< 0.125 kg

Dimensions
22.5 x 120 x 100 mm

Protection grade (acc. to EN 60529)
ensured by the housing: IP 40

Fixing
on a 35 mm rail

from the terminal side: IP 20

acc. to EN 60715
**P20G SEPARATOR**

### Rated Operating Conditions
- **Supply voltage:** 85...253 V a.c. (45...65 Hz) d.c. or 20...40 V a.c. (45...65 Hz) d.c.  
  - Power consumption: < 4 VA
- **Temperature:** ambient: -20...+55°C  
  - Storage: -25...+85°C
- **Relative humidity:** ≤ 95%  
  - Inadmissible condensation
- **Operating position:** any
- **Preheating time:** 10 min
- **Averaging time of the measurement:** ≥ 0.1 s
- **Response time of the separator:** ≤ 0.1 s

### Safety and Compatibility Requirements
- **Electromagnetic compatibility:** Noise immunity acc. to EN 61000-6-2  
  - Noise emissions acc. to EN 61000-6-4
- **Isolation between circuits:** basic
- **Pollution grade:** 2
- **Installation category:** III
- **Maximal phase-to-earth operating voltage:**  
  - For the supply circuit: 300 V (version: 230 V) acc. to EN 61010-1
  - For the measuring input: 50 V
  - For the output: 50 V
- **Altitude above sea level:** < 2000 m

### Connection Diagrams
- **Electrical connection diagram of the P20G separator**

### Ordering

#### Table 1. Ordering Codes:

<table>
<thead>
<tr>
<th>Input</th>
<th>P20G</th>
<th>XX</th>
<th>X</th>
<th>X</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>kind of programmed input: see table 2</td>
<td>XX</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Output | kind of programmed output: see table 2 | XX |

<table>
<thead>
<tr>
<th>Supply</th>
<th>85...253 V a.c./d.c.</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>20...40 V a.c./d.c.</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Version</th>
<th>standard</th>
<th>00</th>
</tr>
</thead>
<tbody>
<tr>
<td>non-standard settings</td>
<td>NS</td>
<td></td>
</tr>
<tr>
<td>custom-made*</td>
<td>XX</td>
<td></td>
</tr>
</tbody>
</table>

| Language | Polish | P |
| English | E |
| other* | X |

### Acceptance tests:
- without extra quality inspection requirements | 0 |
- with an extra quality inspection certificate | 1 |
- acc. to customer’s request* | X |

#### Table 2. Coding of the P20G Separator Kind of Input and Output

<table>
<thead>
<tr>
<th>Range</th>
<th>Input code</th>
<th>Output code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0...1 V</td>
<td>01</td>
<td>01**</td>
</tr>
<tr>
<td>0...5 V</td>
<td>02</td>
<td>02</td>
</tr>
<tr>
<td>0...10 V</td>
<td>03</td>
<td>03</td>
</tr>
<tr>
<td>±1 V</td>
<td>04</td>
<td>04**</td>
</tr>
<tr>
<td>±5 V</td>
<td>05</td>
<td>05</td>
</tr>
<tr>
<td>±10 V</td>
<td>06</td>
<td>06</td>
</tr>
<tr>
<td>0...5 mA</td>
<td>07</td>
<td>07**</td>
</tr>
<tr>
<td>0...20 mA</td>
<td>08</td>
<td>08</td>
</tr>
<tr>
<td>±5 mA</td>
<td>09</td>
<td>09**</td>
</tr>
<tr>
<td>±20 mA</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>4...20 mA</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Custom-made version*</td>
<td>XX</td>
<td>XX</td>
</tr>
</tbody>
</table>

* - after agreeing with the manufacturer  
** - conversion class > 0,2

Order example: The code P20G - 08 06 1 00 E 1 means:  
- P20G - Separator of analog signals (U d.c. and I d.c.)  
- 08 - kind of programmed input: 0...20 mA  
- 06 - kind of programmed output: ±10 V  
- 1 - supply voltage: 85...253 V a.c./d.c.  
- 00 - standard version  
- E - English language  
- 1 - with an extra quality inspection requirements

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**See Also:**  
Free LPConfi g software for easy programming of LUMEL’s products. Available on our website

**PD14 programmer - unit for programming LUMEL’s products, with USB connection, LPCon compatible.**

Programmable digital meter of d.c. current and d.c. voltage N30H.

For more information about LUMEL’s products please visit our website: www.lumel.com.pl

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