

## CIO-BA (Compact-I/O-Module Building Automation)



- **Modbus/RS485-Interface**
- **8xDI 24VDC, isolated**
- **8xDO 24VDC/0.5A or Relay 230VAC/16A**
- **8xAI 0-10V/0-20mA/PT1000**
- **2xAO 0-10V/0-20mA**
- **Status LEDs with individual label area**
- **Compact housing**
- **Manual- and automatic-operation for easy installation**
- **M-Bus Interface**

The **Compact-I/O module-concept** from Grossenbacher Systeme AG offers serial-machine builders and now also for building automation a cost effective solution for remote I/Os.

Based on customers needs the required I/Os (analog, digital, others) will be integrated on one compact module. Compared to standard modular I/O-systems this concept offers large cost savings. The used standards **Modbus** or **CANopen** ensures at the same time openness, flexibility and expandability of the system with standard-components.

The **CIO-BA Line** is specially designed for the needs of Building Automation applications and offers a lot of additional features like manual/automatic-operation, spring type terminal for easy installation, odd/even-lock-protection, status LEDs, etc.

All these advantages sum up to a very attractive price-/performance relationship for decentralized I/O modules "made by Grossenbacher".

## Technical Data

| <b>RS485-Interface</b>      | <b>CIO-BA 29</b>                                 | <b>CIO-BA 16</b>                |
|-----------------------------|--------------------------------------------------|---------------------------------|
| Baudrate                    | Up to 38.4kBit, programmable                     |                                 |
| Configuration               | Node switch 1 to 12                              |                                 |
| <b>Analog Inputs</b>        |                                                  |                                 |
| Number / Resolution         | 8 / 12Bit                                        | -                               |
| Voltage-/Current mode       | 0...10VDC / 0...20mA                             | -                               |
| PT1000                      | -50-250°C, 0,1°C resolution                      | -                               |
| <b>Analog Outputs</b>       |                                                  |                                 |
| Number / Resolution         | 2 / 12Bit                                        | -                               |
| Output voltage              | 0...+10VDC                                       | -                               |
| short circuit proof         | Yes                                              | -                               |
| <b>Digital Inputs</b>       |                                                  |                                 |
| Number / Input voltage      | 8 / 24VDC                                        |                                 |
| Isolation                   | Yes                                              |                                 |
| reverse voltage protection  | Yes                                              | -                               |
| <b>Digitale Outputs</b>     |                                                  |                                 |
| Number / Output voltage     | 8 / 24VDC                                        | 8 Relay / 230VAC                |
| output current              | max. 0.5A                                        | 16A                             |
| short circuit proof         | Yes                                              | -                               |
| <b>M-Bus</b>                |                                                  |                                 |
| Number                      | 3                                                | -                               |
| <b>Power supply</b>         |                                                  |                                 |
| Nominal value/ max. range   | 24VDC SELV / -25% - +30%                         |                                 |
| current/power consumption   | 250mA@24V, Max 6W                                | 250mA@24V, Max 6W               |
| reverse voltage protection  | Yes                                              | Yes                             |
| <b>Climate</b>              |                                                  |                                 |
| operation climate           | 0..50°C/10..90% rel. humidity, non-condensing    |                                 |
| storage climate             | -40..85°C/10..90% rel. humidity, non- condensing |                                 |
| <b>General Data</b>         |                                                  |                                 |
| EMC classes                 | EN 61000-6-2 / EN 61000-6-3                      |                                 |
| standards                   | CE-conformity                                    |                                 |
| degree of protection        | IP20                                             |                                 |
| <b>Dimensions</b>           |                                                  |                                 |
| W x H x T / weight          | 160 x 110 x 63mm / ca.<br>0.3kg                  | 160 x 110 x 63mm / ca.<br>0.3kg |
| <b>Ordering information</b> |                                                  |                                 |
| CIO-BA-xx                   | 50 81 394                                        | 50 81 395                       |