

## System 9000 backplane

### 7916



- Provides safe, easy wiring between the backplane and non I.S. automation systems using standard prefabricated I/O cables
- Direct, Redundant and Duplicate signalling - including HART I/O
- Robust, compact high-end design solution for 16 system 9000 units
- Digital output and LEDs indicate backplane system status



#### Application

- The 7916 backplane is a compact and robust solution that enables a safe and easy connection of PR system 9000 IS device signals into standard automation systems.
- Standard automation system cables and connectors are used to link the backplane to the I/O cards.
- The backplane can be used for Direct, Redundant, Duplicate signalling including HART I/O System connectivity (HART MUX).
- The system 9000 devices isolate and convert AI, AO, DI and DO signals coming from, or going to the I.S. classified area, and routes those signals to a system automation I/O card.
- The system 9000 units maintain a SIL2 level of functional safety, even when mounted in the backplane solution.

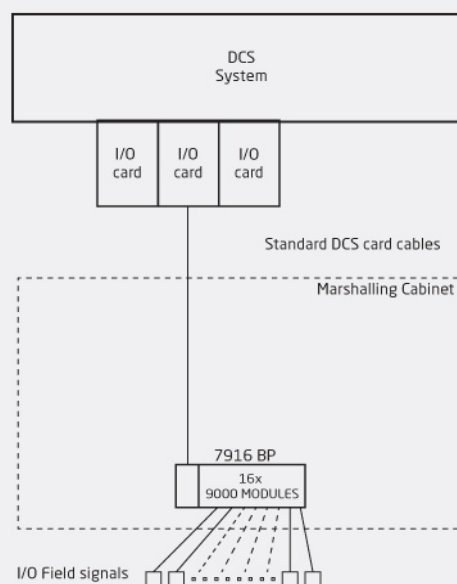
#### Technical characteristics

- Robust, compact high-end design that holds 16 system 9000 units.
- Digital output indicates status of the 9000 devices and primary/back-up power supplies.
- Flexible 24 VDC supply voltage and redundant power supply connection solution.

#### Mounting / installation / programming

- Flexible horizontal/vertical panel or wall mounting in the Safe or Zone 2 / Div 2 areas.
- System 9000 devices easily snap ON and OFF using piano keys, and devices can be hot-swapped.
- Tag number and ID labels are easily mounted and read by using the dedicated piano key spacer.
- Wide temperature operation range: -20...+60°C.
- Backplane selection guide can be found at [www.prelectronics.com/backplane](http://www.prelectronics.com/backplane)

#### Applications



**Order:**

|      |                     |
|------|---------------------|
| 7916 | 16 module backplane |
|------|---------------------|

**Environmental Conditions**

|                            |                                                     |
|----------------------------|-----------------------------------------------------|
| Operating temperature..... | -20°C to +60°C                                      |
| Storage temperature.....   | -40°C to +85°C                                      |
| Relative humidity.....     | < 95% RH (non-cond.)                                |
| Installation in.....       | Pollution degree 2 & meas. /<br>overvoltage cat. II |

**Mechanical specifications**

|                         |                                               |
|-------------------------|-----------------------------------------------|
| Dimensions (HxWxD)..... | 144 x 443 x 141 mm                            |
| Wire size.....          | 2.5 mm <sup>2</sup> / AWG 12                  |
| Wire size.....          | (Supply 1 / 2 and status relay<br>connectors) |

**Common specifications****Supply**

|                          |                            |
|--------------------------|----------------------------|
| Supply voltage.....      | 20...31.2 VDC (24 DC nom.) |
| Max. required power..... | ≤ 60 W                     |

**Isolation voltage**

|                                           |                                                            |
|-------------------------------------------|------------------------------------------------------------|
| Isolation voltage, test /<br>working..... | 500 VAC / 50 VAC                                           |
| Isolation voltage, test /<br>working..... | (Basic isolation between supply<br>1 & 2 and status relay) |
| Replaceable fuses.....                    | Fuse F1 & F2: 3.15 A SB, 250<br>V, type TR5                |

**Output specifications****Status relay**

|                   |                               |
|-------------------|-------------------------------|
| Max. voltage..... | 32 V (Zone 2 / Div. 2 area)   |
| Max. voltage..... | 42 V (Safe area)              |
| Max. current..... | 100 mA (Zone 2 / Div. 2 area) |
| Max. current..... | 100 mA (Safe area)            |

**Observed authority requirements**

|          |                |
|----------|----------------|
| EMC..... | 2014/30/EU     |
| EAC..... | TR-CU 020/2011 |

**Approvals**

|                      |                   |
|----------------------|-------------------|
| c UL us, UL 508..... | E231911           |
| ATEX.....            | DEKRA 13ATEX0136X |
| IECEX.....           | DEK 13.0044X      |
| FM.....              | 0003049918-C      |