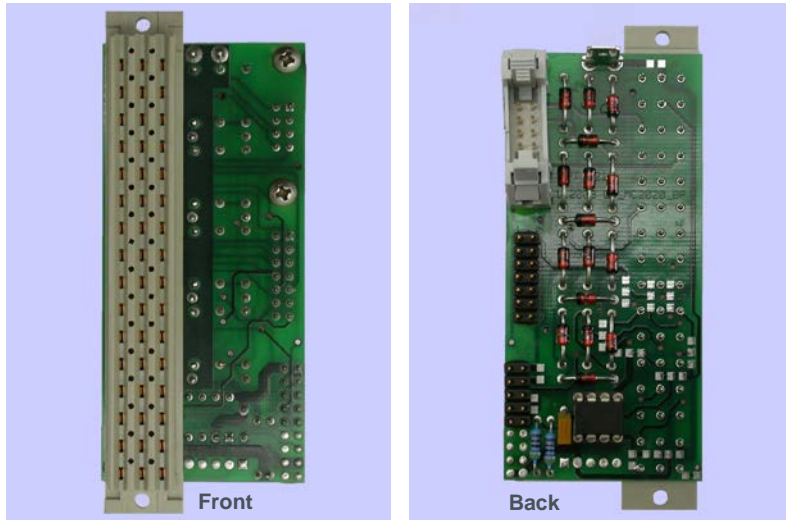


Backplane MC2020BP

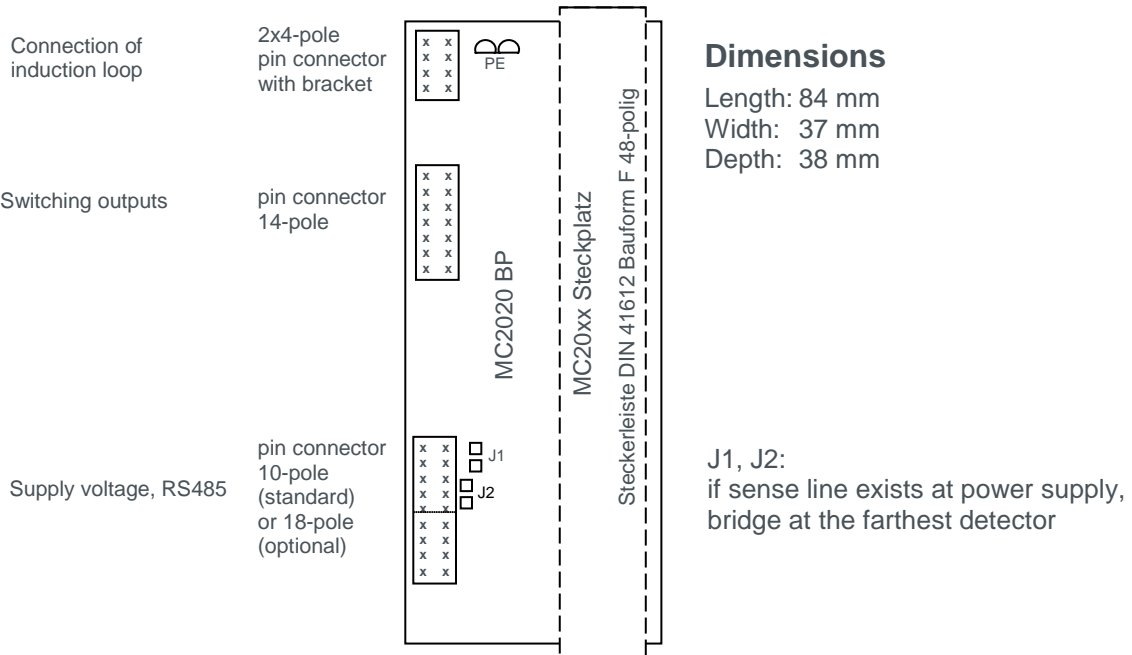


Application range

- Backplane for the connection of the SWARCO TRAFFIC SYSTEMS detectors within the rack.

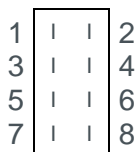
Function

- Adaptation in the rack for easier wiring
- Connection of:
 - Induction loops
 - Switching outputs
 - Supply voltage
 - RS485
- Protective circuit of the loop connections
- EEPROM for the slot-related storage of detector data



Pin connection MC2020BP

Pin assignment induction loop connection 2x4-pole pin connector with bracket



| | |
|-------|-----------|
| Pin 1 | Channel 1 |
| Pin 2 | Channel 1 |
| Pin 3 | Channel 2 |
| Pin 4 | Channel 2 |
| Pin 5 | Channel 3 |
| Pin 6 | Channel 3 |
| Pin 7 | Channel 4 |
| Pin 8 | Channel 4 |

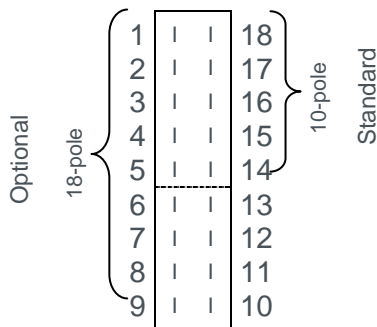
Pin assignment switching outputs 14-pole pin connector



| | |
|--------|----------------------|
| Pin 1 | GND |
| Pin 2 | Channel 1 (C) (OC) |
| Pin 3 | Channel 3 (C) (OC) |
| Pin 4 | Malfunction (C) (OC) |
| Pin 5 | Channel 1 (E) |
| Pin 6 | Channel 3 (E) |
| Pin 7 | Malfunction (E) (OC) |
| Pin 8 | n.c. |
| Pin 9 | Channel 4 (E) |
| Pin 10 | Channel 2 (E) |
| Pin 11 | VCC out* |
| Pin 12 | Channel 4 (C) (OC) |
| Pin 13 | Channel 2 (C) (OC) |
| Pin 14 | VCC in* |

(C) : Collector for opto coupler version
 (OC) : Open Collector
 (E) : Emitter for opto coupler version
 * : for slot control

Pin assignment supply voltage / RS485 pin connector 10-pole resp. 18-pole



| | | |
|--------|---------------|----------|
| Pin 1 | VCC (+5 V DC) | |
| Pin 2 | VCC (+5 V DC) | |
| Pin 3 | GND | |
| Pin 4 | GND | |
| Pin 5 | GND | |
| <hr/> | | |
| Pin 6 | reserved | |
| Pin 7 | reserved | |
| Pin 8 | reserved | |
| Pin 9 | reserved | |
| Pin 10 | reserved | |
| Pin 11 | reserved | Optional |
| Pin 12 | reserved | |
| Pin 13 | reserved | |
| <hr/> | | |
| Pin 14 | Sense - | |
| Pin 15 | Bus RS485 A | |
| Pin 16 | Bus RS485 B | |
| Pin 17 | Sense + | |
| Pin 18 | VCC | |

Pin connection MC-Detector (pins only used on backplane)

Plug connector DIN 41612 model F 48-pole

| | d | b | z | d | b | z |
|----|---|---|---|----------------|-------------------|-----------------|
| 2 | | | | Loop 2a | PE | Loop 1a |
| 4 | | | | Loop 4a | - | Loop 3a |
| 6 | | | | Loop 2b | - | Loop 1b |
| 8 | | | | Loop 4b | - | Loop 3b |
| 10 | | | | CH2 Output -* | - | CH1 Output -* |
| 12 | | | | CH4 Output -* | - | CH3 Output -* |
| 14 | | | | CH2 Output +* | - | CH1 Output +* |
| 16 | | | | CH4 Output +* | - | CH3 Output +* |
| 18 | | | | Slot control | - | RS485 A |
| 20 | | | | Slot control | - | RS485 B |
| 22 | | | | reserved | reserved | reserved |
| 24 | | | | - | SDA (ext. EEPROM) | - |
| 26 | | | | - | SCL (ext. EEPROM) | - |
| 28 | | | | RESET extern** | ERROR Output -* | ERROR Output +* |
| 30 | | | | - | - | - |
| 32 | | | | GND | reserved | +5 V DC |

* with electronic relay (C, E): floating AC / DC outputs
 * with Opto coupler (C, E): +: collector, -: emitter, floating,
 * with Open Collector (OC): +: collector, -: not wired, non-floating (reference point GND, device ground)
 ** low-active (0 V DC) causes RESET (static)
 -: not connected