

# Industralas Mechatronic Rotary Latch (MRL)

## Electrical Specification

|                                   |                                                                                    |
|-----------------------------------|------------------------------------------------------------------------------------|
| Operating Voltage                 | 12-24V DC $\pm$ 10%                                                                |
| Supply Current (Idle)             | 5-7 mA                                                                             |
| Supply Current (Unlock Operation) | 150 mA @ 45N preload (Normal Operation)                                            |
| Supply current at max load        | 550 mA                                                                             |
| Control signal voltage range      | 8-24V                                                                              |
| Latch status output               | Open Drain. Sink to ground. Max 200 mA (Protected)                                 |
| Door status output                | Open Drain. Sink to ground. Max 200 mA (Protected)                                 |
| Latch release time                | ~ 0.4 sec.                                                                         |
| Open signal minimum pulse time    | ~ 20 ms.                                                                           |
| EMC Standards                     | EC 6100-4-2, 6100-4-3, 6100-4-4, 6100-4-5, 6100-4-6, 6100-4-8, 6100-4-11, 6100-6-2 |
| Mechanical Specification          |                                                                                    |
| Operating temperature             | -15 to +55 °C                                                                      |
| Operating cycles                  | Min 100,000 cycles (@ 45N preload)                                                 |
| Max pre-load                      | 800 N                                                                              |
| Mechanical breakdown              | 8900 N                                                                             |

### Gasket force vs trigger force

| Gasket Force | Trigger Force |
|--------------|---------------|
| 10           | 1,6           |
| 20           | 2,6           |
| 30           | 4,0           |
| 40           | 4,8           |
| 50           | 5,5           |

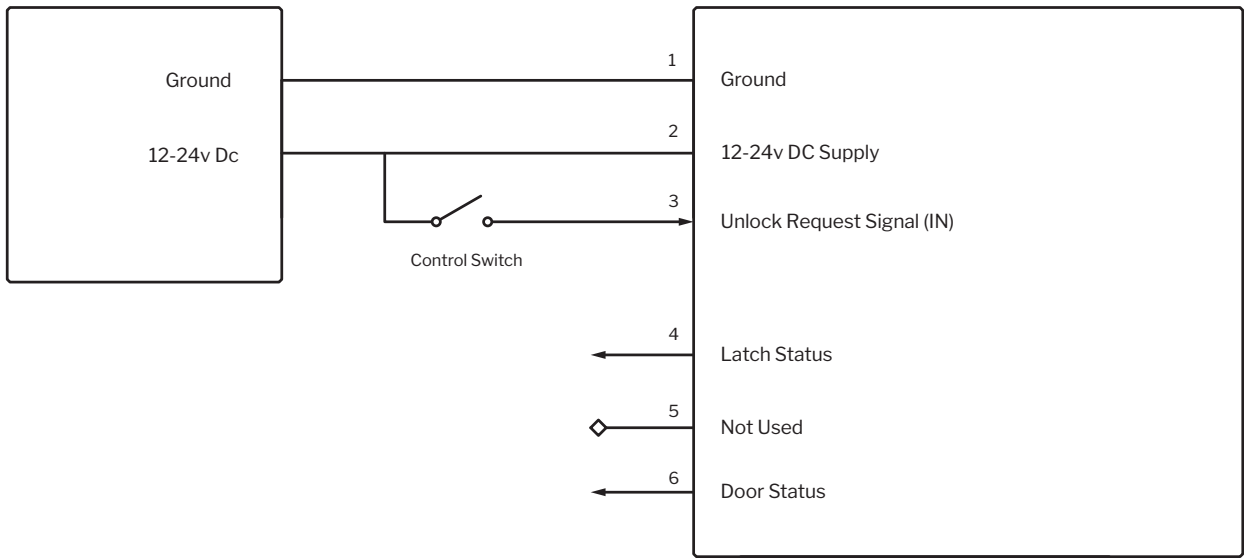
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## Connections

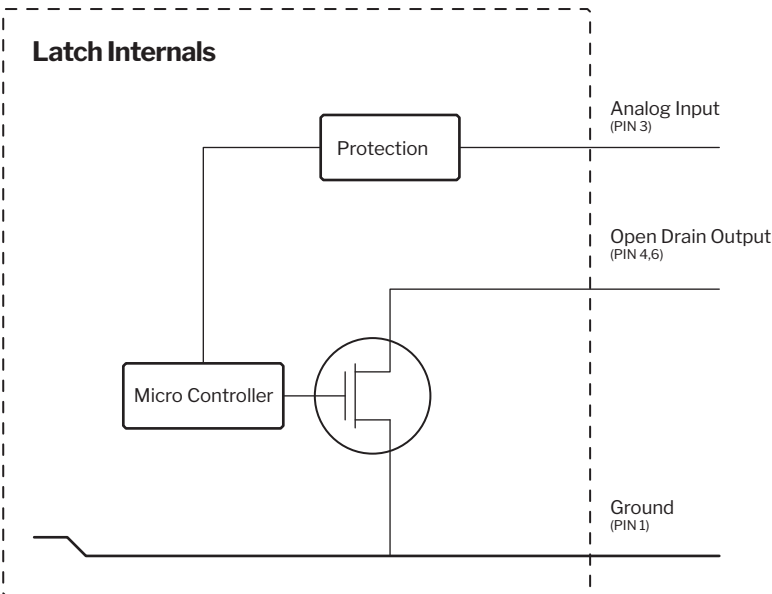
Connection to Power supply and input signal

### Power Supply

### Latch



### Latch Internals



## Internal Circuit

The open drain outputs can sink loads up to 200 mA. It is not recommended to drive inductive loads without additional external protection circuit

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(mm)

