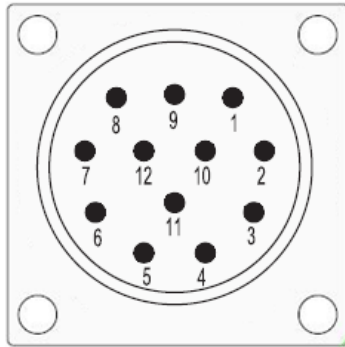


Pin assignment M23 12-pin for stepper motors

motor connection



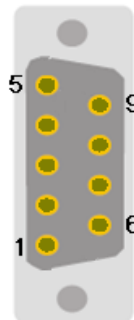
view of plug pins on plug side

M23 12-pin plug

- 1 motor phase 1A
 - 2 motor phase 1B
 - 3 motor phase 2A
 - 4 motor phase 2B
 - 5 +24V switches
 - 6 +24V brake
 - 7 GND switches
 - 8 GND brake
 - 9 limit switch 1
 - 10 limit switch 2
 - 11 ---
 - 12 ---
- case - cable shield

Pin assignment Sub-D 9-pin for stepper motors

motor connection



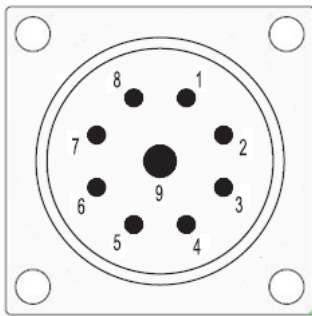
view of plug pins on plug side

Sub-D-9-pin plug

- 1 motor phase 1A
 - 2 motor phase 1B
 - 3 motor phase 2A
 - 4 motor phase 2B
 - 5 +24V switches
 - 6 +24V brake
 - 7 limit switch 2
 - 8 GND brake
 - 9 limit switch 1
- case - cable shield

Pin assignment for brushless EC-servo-motors (BLDC) - 48V

motor connection

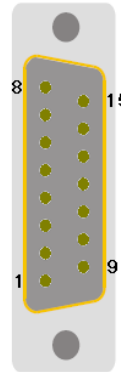


view of plug pins on plug side

M23 9-pin (8+1) plug

- 1 motor phase U
- 2 motor phase V
- 3 motor phase W
- 4 ---
- 5 +24V brake
- 6 GND brake
- 7
- 8
- 9 protected earth PE case - cable shield

encoder connection



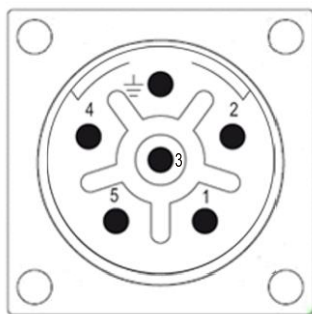
view of plug pins on plug side

Sub-D 15-pin plug

- 1 Hall signal A
- 2 +5V encoder/Hall
- 3 encoder line /Z
- 4 encoder line /B
- 5 encoder line /A
- 6 +24V switches
- 7 limit switch 1
- 8 GND switches
- 9 Hall signal B
- 10 GND encoder
- 11 encoder line Z
- 12 encoder line B
- 13 encoder line A
- 14 Hall signal C
- 15 limit switch 2* case - cable shield

Pin assignment for brushless EC-servo-motors (BLDC) - 48V, 400W

motor connection



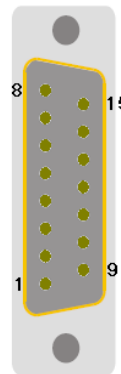
view of plug pins on plug side

M23 9-pin (8+1) plug

- 1 motor phase U
- 2 motor phase V
- 3 motor phase W
- 4 +24V brake
- 5 GND brake
- PE protected earth PE

case - cable shield

encoder connection



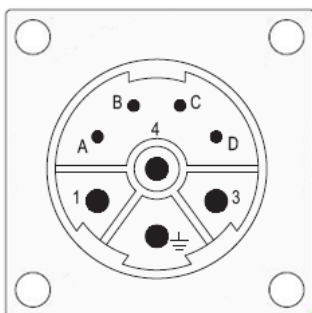
view of plug pins on plug side

Sub-D 15-pin plug

- 1 Hall signal A
- 2 +5V encoder/Hall
- 3 encoder line /Z
- 4 encoder line /B
- 5 encoder line /A
- 6 +24V switches
- 7 limit switch 1
- 8 GND switches
- 9 Hall signal B
- 10 GND encoder
- 11 encoder line Z
- 12 encoder line B
- 13 encoder line A
- 14 Hall signal C
- 15 limit switch 2 case - cable shield

Pin assignment for brushless EC-servo-motors (BLDC) - 310V

motor connection

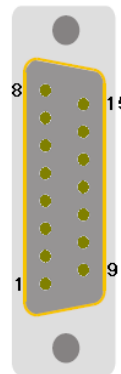


view of plug pins on plug side

M23 9-pin (4+3+1) plug

- 1 motor phase U
- PE protected earth PE
- 3 motor phase W
- 4 motor phase V
- A +24V brake
- B GND brake
- 7 ---
- 8 ---
- case - cable shield

encoder connection



view of plug pins on plug side

Sub-D 15-pin plug

- 1 Hall signal A
- 2 +5V encoder/Hall
- 3 encoder line /Z
- 4 encoder line /B
- 5 encoder line /A
- 6 +24V switches
- 7 limit switch 1
- 8 GND switches
- 9 Hall signal B
- 10 GND encoder
- 11 encoder line Z
- 12 encoder line B
- 13 encoder line A
- 14 Hall signal C
- 15 limit switch 2 case - cable shield

* Limit switch 2 not applicable for motor modules of rotation units → jumper to PIN 6