Six-axis MS165 and MS210 spot welding robots feature optimized vibration control, high-rigidity speed reducers and high-speed spot gun motion which reduces air cut time and improves productivity.

Expanded wrist motion range eliminates interference and improves application flexibility.

New, streamlined design features slim base and wrist profiles, and compact gas spring which allow for high density robot spacing. Robots can easily reach into confined spaces, improving application flexibility.

Up to 70% less power consumption during motion and 25% savings during idle periods compared to previous models.

Servo gun cables and air and water lines are routed through robot base and upper arm to increase cable life, enhance safety and reduce teaching time.

Controller connectivity provides simple wiring to spot timers and robot pendant weld programming for Medar® and Nadex® brand timers.

Numerous spot welding functions to take advantage of servo gun control including:
- Work thickness detection
- Multi-step pressure file
- Tip wear compensation
- Work search function
- Servo tip dresser
- Pendant o-scope

Spot harness connections
- Connections from base to upper arm
- DeviceNet signal and power
- Connections from base to wrist (gun)
- Servo motor and encoder
- Air hose (2) 6.5 mm ID, (1) 8 mm ID
- Water hose (4) 8 mm ID
- Weld power (2) 22 mm², (1) 14 mm²
- Transformer thermostat (3) 0.75 mm²
- User I/O (9) twisted pair + (1) 0.3 mm²

Reduced life cycle cost and increased cable life with proven integrated power and utility cable harness.

Increased payload and speed with optimized robot and control for reduced cycle time.

Slim profile for high density spacing and for reaching into confined spaces.

Reduced energy consumption and improved maintainability.

**KEY BENEFITS**

**SPECIFICATIONS**

MS165 payload:
- 165 kg with spot harness
- 180 kg without spot harness

MS210 payload:
- 210 kg with spot harness
- 225 kg without spot harness

2,702 mm horizontal reach

3,393 mm vertical reach

±0.2 mm repeatability

Floor mounted

**CONTROLLERS**

- DX200
- FS100
- MLX200
### MS165 | MS210 ROBOTS

**SPECIFICATIONS: MS165 | MS210 (WITH EXTERNAL CABLE)**

<table>
<thead>
<tr>
<th>Axes</th>
<th>Maximum motion range [*]</th>
<th>Maximum speed [*]/[Acc.]</th>
<th>Allowable moment [N•m]</th>
<th>Allowable moment of inertia [kg•m²]</th>
<th>Controlled axes</th>
<th>MS165</th>
<th>MS210</th>
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</table>

| Maximum payload [kg] | 1.020 | 1.050 |
| Humidity [%]         | 20 - 80 | 20 - 80 |
| Weight [kg]          | 1,323 | 1,323 |

* Motion range limited by spot harness

### OPTIONS

- Extended length manipulator cables
- Robot risers and base plates
- External axis kits for servo guns
- Wide variety of fieldbus cards
- Vision systems
- Digital interface (Dnet or EIP) for Medar MedWeld 6000 spot timer

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