**MOTOMAN MH5F**

**Industrial Robot**

The MOTOMAN MH5F is a compact, high-speed robot that requires minimal installation space.

**STANDARD FEATURES**
- Compact, powerful and economical.
- MH5F model: 706 mm (27.8") reach; 0.02 mm (0.0008") repeatability.
- Widest work envelope in its class.
- 5 kg (11.03 lbs) payload. Improved moment ratings provide increased carrying capacity.
- Robot adjusts performance based on load. Effective for payloads less than 1 kg (2.2 lbs).
- Small footprint and minimal interference radius (179 mm) maximizes floor space utilization.
- Floor-, wall- or ceiling-mounted options. Brakes on all axes.
- Compact design and built-in collision avoidance features with multiple robot control allow up to eight robots to be used together to optimize productivity.
- Internally routed cables and hoses maximize system reliability.

**SOFTWARE**

MotoPlus is a sophisticated and flexible robot control program that allows applications that were not possible before. INFORM and CIO ladder programs can be developed by using C languages.

Customization of programming pendant – Operation windows for the programming pendant can be customized using VC++ and C# languages in accordance with needs and applications.

Interface panels – The windows in the operation panel can be created to look the same in the programming pendant.

**SPECIFICATIONS**

**CONTROLLER**
- FS100 Controller (see page 19).

**STRUCTURE**
- Vertical jointed-arm type

**PAYLOAD**
- 5 kg (11 lbs)

**VERTICAL REACH**
- 1,193 mm (47")

**HORIZONTAL REACH**
- 706 mm (27.8")

**REPEATABILITY**
- ±0.02 mm (±0.0008")

**CONTROLLED AXES**
- 6

**MAXIMUM**
- S-Axis (Turning/Sweep) ±170°

**MOTION**
- L-Axis (Lower Arm) +150°/-65°

**RANGE**
- U-Axis (Upper Arm) +235°/-136°
- R-Axis (Wrist Roll) ±190°
- B-Axis (Bend/Pitch/Yaw) ±125°
- T-Axis (Wrist Twist) ±360°

**MAXIMUM**
- S-Axis 376°/s

**SPEED**
- L-Axis 350°/s
- U-Axis 400°/s
- R-Axis 450°/s
- B-Axis 450°/s
- T-Axis 720°/s

**APPROXIMATE MASS**
- 27 kg (59.5 lbs)

**BRAKES**
- All axes

**POWER CONSUMPTION**
- 1 kVA

**ALLOWABLE MOMENT**
- R-Axis 12 N • m
- B-Axis 12 N • m
- T-Axis 7 N • m

**ALLOWABLE MOMENT OF INERTIA**
- R-Axis 0.3 kg • m²
- B-Axis 0.3 kg • m²
- T-Axis 0.1 kg • m²

**INTERNAL ELECTRIC CABLE**
- 3 BC 10 Conductors
- 4 BC 8 Conductors

**INTERNAL AIR HOSE**
- 2 – 1/4” PT Connections

**PROGRAMMING PENDANT**

**DIMENSIONS**
- 169 (W) x 314.5 (H) x 50 (D) mm

**POWER CONSUMPTION**
- 1 kVA

**ALLOWABLE MOMENT**
- R-Axis 12 N • m
- B-Axis 12 N • m
- T-Axis 7 N • m

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**DISPLAY**
- 640x480 pixels color LCD, touch panel

**IEC PROTECTION CLASS**
- IP65

**CABLE LENGTH**
- Standard: 8 m, optional: 20 m max.

**APPLICATIONS (SAMPLES)**

MH5F with Machine Tending (Milling/Turning/Laser Engraver)
MH5F with Assembly and/or Quality control

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