Sumitomo SHI DEMAG

SDR Robots

Full Automation Solutions

AUTOMATION FROM A SINGLE SOURCE

Integration of SDR robot control into NC5 machine control: optimal productivity and user-friendliness

SDR robots are designed to communicate with the NC5 control via a data/command interface. This exchange of data, commands or signals considerably simplifies the interaction between the machine and robot.

A full remote control HMI of the robot is available on the NC5 display via an Ethernet connection to give full robot control access.

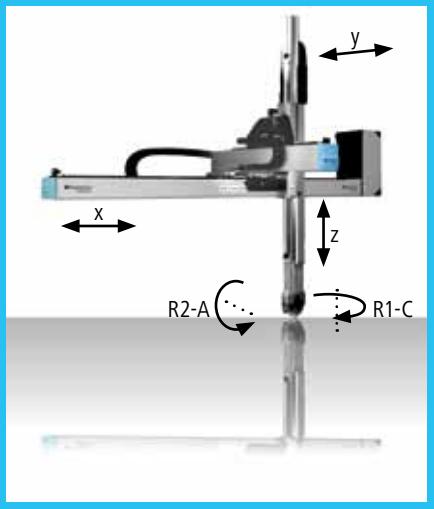
The mode selector switch of the NC5 control facilitates the joint handling of the modes of the machine and robot: robot home position traverse, joint Automatic start and Start-Stop-Step of the robot cycle within the machine cycle.

In addition, the robot program data is stored with the associated machine settings program. This way, all functions of the complete production cell encountered in every day production are controlled from the NC5 panel.

Moreover, the robot teach programmes can be printed via the printer integrated in the injection moulding machine, simple and clear.

A full line of robots for a full line of moulding machines

- **6 models** to automate our moulding machines from 350 to 20000 kN
- Compatible with our **Systec, IntElect and El-Exis** machines featuring NC5 control.
- The robot's advanced electronic control is **integrated into the NC5 machine control.**
- **Servo-motor technology** simultaneously manages 3 CNC axes as standard for minimum in and out cycle time.
- All robots offer a **compact vertical arm with in-line rotation units** for easy access into the mould.
- **Electric and pneumatic EOAT-connections and mechanical coupling** are designed to be quickly changed for different production runs.
- The **demould free function** (y-free), available as a standard on all SDR-models, makes programming easier for parts ejection tracking and enables you to save on gripper costs thanks to a simpler design.
- The **built-in greasing facility** guarantees maximum operation times and minimum maintenance requirements (once a year only).



- Large, interactive, 10'' LCD screen
- Sensitive joystick for controlling the robot intuitively
- Full-screen display, online documentation can be accessed at any time
- USB, Ethernet and Wifi connections: all the available communication standards to connect up to your company's IT system

- With the **Simple Pick & Place Module**, create your program-sequence by answering the questions the system asks you. See the result immediately in **3D on the video.**

- Centralize your robot programs via your company's IT network. Print and save your programs using **the USB key.**

- **Digital vacuum switch:** program and save your tailored part grip settings for each mold (option).

A FULL LINE OF ROBOTS

	SDR 11	SDR 22	SDR 33	SDR 44	SDR 55	SDR 66
IMM clamping force	350 – 1300 kN	1500 – 3500 kN	3000 – 7000 kN	6500 – 10000 kN	10000 – 15000 kN	15000 – 20000 kN
Transverse stroke (X)	1500 – 3500 mm	2000 – 6000 mm	2000 – 6000 mm	3000 – 10000mm	3500 – 10000 mm	4000 – 10000 mm
Demoulding stroke (Y)	500 mm	650 mm	850 mm	1100 mm	1300 mm 1500 mm (option)	1600 mm 1800 mm (option)
Vertical stroke (Z) Directarm Telescopic arm	 1000 mm –	 1400 mm 1600 mm (option)	 1600 mm 1800 mm (option)	 – 2000 mm	 – 2400 mm 2600 mm (option)	 – 3000 mm
Standard EOAT-rotation (R1-C)	0° – 90° pneumatic, 10 Nm	0° – 90° pneumatic, 23 Nm	0° – 90° pneumatic, 42 Nm	0° – 90° pneumatic, 60 Nm	0° – 90° pneumatic, 60 Nm	0° – 90° pneumatic, 150 Nm
Part handling	2 vacuum and 2 pressure circuits [2]	2 vacuum and 2 pressure circuits [1]	2 vacuum and 2 pressure circuits [1]	2 vacuum and 2 pressure circuits [1]	2 vacuum and 2 pressure circuits [1]	2 vacuum and 2 pressure circuits [1]
Maximum payload (part + EOAT)	5 kg	8 kg with 1400 mm vertical stroke 6 kg with 1600 mm vertical stroke	15 kg with 1600 mm vertical stroke 12 kg with 1800 mm vertical stroke	25 kg	35 kg	55 kg

Options

Compact beam-mounted cabinet	✓	✓	✓	✓	✓	✓
R2-A-Rotation pneumatic 0°–90°–180°	3 Nm	6 Nm	6 Nm	22 Nm	22 Nm	50 Nm
Elastic unit for EOAT		✓	✓	✓	✓	✓
CNC vacuum switch	✓	✓	✓	✓	✓	✓
R1-C servo 0°–180°					combined 88 Nm	combined 167 Nm
R2-A servo 0°–270°					+ 26 Nm	+ 60 Nm

[1] maximum 8 vacuum circuits possible, maximum 8 gripper circuits possbile; [2] maximum 4 vacuum circuits possible, maximum 4 gripper circuits possbile; EOAT = End of arm tool

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www.sumitomo-shi-demag.eu