

MOTOMAN NEX4

Handling robot for adaptive,
AI-based automation



With a payload of 4 kg and a reach of 550 mm, the compact NEX4 manipulator is the right choice for a wide range of adaptive handling and assembly tasks in confined workspaces. As part of the MOTOMAN NEXT platform, it is suitable for automation in which robots use sensors (e.g., cameras, force sensors) to detect, understand, evaluate, and autonomously respond to new situations and workpiece variants.

MOTOMAN NEXT integrates classic robot control with an NVIDIA-based control module (ACU), offering all the possibilities of the classic signal-based automation world (OT) and the data-based IT world on one single platform. Modern software engineering tools (by Yaskawa, NVIDIA, ROS 2 community), an open LINUX Docker environment, and services provided by Yaskawa give programmers complete freedom to efficiently and successfully deploy AI robotics applications in the field.

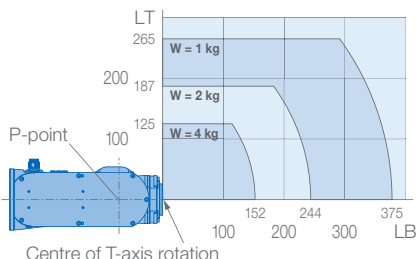
The NEX4 manipulator features newly designed high-inertia robot servo drives from Yaskawa's $\Sigma 10$ generation, which combine high drive dynamics with outstanding absolute accuracy – for exact correspondence between the real and virtually planned worlds including automatic path planning or precise sensor guidance.

Integrated media and Ethernet cables (Cat6) in the robot arm supply intelligent plug-and-play actuators or cameras on the robot flange, for example, without the need of external media packages along the robot arm.

KEY FEATURES

- Compact design with high load capacity and working range (up to 4 kg / 550 mm)
- High motion performance and agile servo control (new high inertia servo drives)
- Outstanding positioning / absolute accuracy
- Slim design with small installation area
- Integrated Ethernet and media cables, options for cable routing
- IP67-protected housing

tuv
CERT
EN ISO 9001
Zertifikat Nr. 20 100 9864
www.tuv-cert.de



Technical drawing of a 42 mm diameter ball bearing. The drawing includes a top view, a side view, and a bottom view. The top view shows a cross-section with dimensions: outer diameter $\varnothing 52\ h7$ (insertion depth 3), inner diameter $\varnothing 30\ H7$ (insertion depth 3), and a 45° chamfer. The side view shows a cross-section with dimensions: outer diameter $\varnothing 52\ h7$ (insertion depth 3), inner diameter $\varnothing 30\ H7$ (insertion depth 3), and a 45° chamfer. The bottom view shows a cross-section with dimensions: outer diameter $\varnothing 52\ h7$ (insertion depth 3), inner diameter $\varnothing 30\ H7$ (insertion depth 3), and a 45° chamfer. The drawing also indicates 6 x M4 x P0.7, depth 6, and 2 x $\varnothing 6\ H7$, depth 5.5, and a 42 mm diameter.

Mounting options: Floor
IP Protection: IP67 (all axes)

Specifications NEX4						
Axes	Maximum motion range [°]	Maximum speed [°/s]	Allowable moment [Nm]	Allowable moment of inertia [kg · m²]	Controlled axes	6
					Max. payload [kg]	4
S	±170	465	–	–	Repeatability [mm]	±0,01
L	+130/–85	465	–	–	Max. working range R [mm]	550
U	+200/–65	525	–	–	Temperature [°C]	0 to +45
R	±200	565	8.86	0.2	Humidity [%]	20 – 80
B	+213/–33	565	8.86	0.2	Weight [kg]	29
T	±455	1000	4.9	0.07	Power supply, average [kVA]	1

YASKAWA Europe GmbH
Yaskawastraße 1
85391 Allershausen, Germany
Tel. +49 (0) 8166/90-0
Fax +49 (0) 8166/90-103
robotics@yaskawa.eu
www.yaskawa.eu

YASKAWA Europe GmbH
Philipp-Reis-Straße 6
65795 Hattersheim am Main, Germany
Tel. +49 (0) 6196/77725-0
Fax +49 (0) 6196/77725-39

YR-N1-06VX4-C00
A-10-2025, A-No. 231077

YASKAWA