

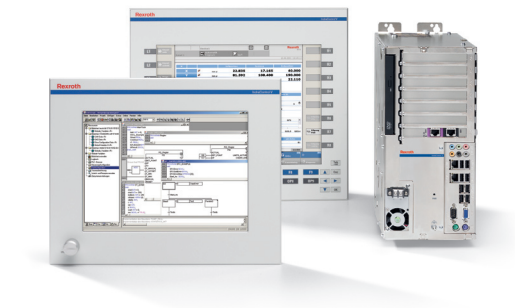
CNC

64 Axis

IndraMotion MTX performance, advanced



CNC

64 Axis ■ IndraMotion MTX performance, advanced**Technical data**

	MTX performance	MTX advanced
Machining Technologies		
Turning	●	●
Milling	●	●
Drilling	●	●
Grinding	●	●
Punching, Nibbling	●	●
Shape cutting	●	○
Reforming	●	●
Axis control		
Default number of axes	8 ●	8 ●
Max. number of axes	64 ○	64 ○
Max. number of spindles thereof	32 ○	32 ○
Default number of independent channels	3 ●	3 ●
Max. number of independent channels	12 ○	12 ○
Default number of interpolating axes per channel	4 ●	4 ●
Max. number of interpolating axes per channel	8	8
Linear axes	●	●
Circular axes	●	●
Endlessly turning rotary axis	●	●
Hirth axes	●	●
Spindel/C axis change-over	●	●
Max. number of gantry groups per channel	8 ○ ²⁾ ³⁾ ⁶⁾	8 ○ ²⁾ ³⁾ ⁶⁾
Max. number of synchronous groups per channel	8 ○	8 ○
Circuit spanning axis transfer	●	●
Cam	●	●
Spindle coupling over electr. gears	○ ⁷⁾	○ ⁷⁾

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Software limit switch		●	●
Master axis synchronisation		○ ¹⁾ ²⁾ ³⁾	○ ¹⁾ ²⁾ ³⁾
Axis-specific jerk limitation		●	●
Integrated safety technology according to EN ISO 13849-1 Cat. 3 PL e and EN 62061 SIL 2 (safe stop, safe reduced speed)		□	□
Interpolation functions			
Linear interpolation		●	●
Linear interpolation with/without exact halt before NC block transition		●	●
Circular interpolation with radius and center-point programming, helical interpolation		●	●
Circular interpolation with tangential entrance		●	●
Threading drill with/without compensating chuck		●	●
Threading cutter		●	●
Cylinder surface transformation		○ ¹⁾ ⁶⁾	○ ¹⁾ ⁶⁾
C-axis transformation		○ ¹⁾	○ ¹⁾
NC block preview, look-ahead with jerk limitation		Max. 1000 blocks / ○	Max. 1000 blocks / ○
5/6 axis transformation with TCP programming		○ ³⁾	○ ³⁾
Jogging with active transformation		○ ³⁾	○ ³⁾
Spline interpolation, C1 + C2, continuous cubic splines, B-splines, NURBS		○ ¹⁾ ²⁾ ³⁾	○ ¹⁾ ²⁾ ³⁾
Nanometer resolution		●	●
Feed functions			
Feed in mm/min or inch/min		●	●
Time programming		●	●
Feed per rotation		●	●
Constant cutting speed		○ ¹⁾	○ ¹⁾
Travel to dead stop		●	●
Torque reduction		●	●
Shifts and Corrections			
Mirroring, scaling, turning		●	●
Zero shift		●	●
Corrections and zero shift programmable using CPL		●	●
Placements (Frames)		-	-
2D compensation		●	●
3D cutter radius compensation		○ ³⁾	○ ³⁾
Course correction with level switch		●	●
Tangential tool guidance		●	●
Tool maintenance			
Integrated, flexible tool maintenance		●	●
Configurable tool database		●	●
Tool compensation (length, radius, cutting position compensation, user data)		●	●
Additive tool corrections (D-corrections)		●	●
Access to tool data from the PLC		●	●
Access to tool data from the CNC		●	●
CNC programming			
Creation of parts program (DIN ISO 66025, RS 274)		●	●

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High level language programming, CPL (Customer Programming Language)		●	●
Grafic NC-programming		○ ⁴⁾ ⁵⁾	○ ⁴⁾ ⁵⁾
Grafic NC-simulation		○ ⁴⁾ ⁵⁾	○ ⁴⁾ ⁵⁾
CNC user memory	MB	64	256
Static memory	MB	8	16
Max. size of parts program	MB	●	●
Technology cycles			
Turning		-	-
Milling		○ ²⁾ ³⁾ ⁵⁾	○ ²⁾ ³⁾ ⁵⁾
Drilling		○ ¹⁾ ²⁾ ³⁾	○ ¹⁾ ²⁾ ³⁾
Functions			
Dwell time in seconds		●	●
Excelleration programming, KV-programming		●	●
Homing via NC-program		●	●
Absolute dimation, relative dimation		●	●
Change-over inch/mm		●	●
Sensor input, static/flying measurement		●	●
Read process and drive data through SERCOS 2		●	●
Rounding and milling		●	●
Corner rounding with splines		●	●
Laser power controler		●	●
Digitalisation		●	●
NC-block specification from PLC		●	●
Retrace function: Reversing over the contour		-	-
Support for control elements			
Configurable user displays		■	■
Cycle-header/input support OEM-cycles		■	■
Block lead/block search run		●	●
Dry run		●	●
Departure and NC-block restart on the contour		●	●
PLC programming			
Integrated PLC: IndraLogic		●	●
Programming languages according to IEC 61131-3 (IL, LD, CFC, ST, SFC, FBD)		●	●
PLC program memory	MB	8	16
Number of high-speed inputs/outputs		8/8 / ○	8/8 / ○
Number of fieldbus inputs/outputs in bytes		8,192/8,192	8,192/8,192
Multitasking		●	●
Max. number of PLC tasks		16	16
Diagnosis and start-up tool			
Integrated, system comprehensive engineering framework IndraWorks		●	●
Automatic system monitoring		●	●
Indication and error message in clear text		●	●
Integrated drive projection		●	●
Integrated PLC-projection		●	●

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Drive oszilloscope		●	●
Logic analyser		●	●
Circle form test		●	●
NC analyzer		●	●
Action recorder IndraMotion MTX acr		○	○
Cycle time analyzer IndraMotion MTX cta		○	○
Remote diagnostics I-Remote		○	○
Software IndraMotion MTX simulator		○	○
IndraWorks view 3D		○	○
IndraWorks machine simulator		○	○
Open architecture			
Configurable user interface with all standard functions		●	●
Projectable, user-defined user displays		●	●
Adaption and integration over standardized interfaces (OPC, XML, ActiveX, NET)		●	●

● Standard

○ Option

■ Optional in connection with a PC

□ Option with IndraDrive

1) Technology package - turning 1

2) Technology package - milling 1

3) Technology package - milling 2

4) Shop programming - turning (DE/EN)

5) Shop programming - milling (DE/EN)

6) Technology package - shape cutting

7) Technology package - electronic transmission

Components**Engineering and operating**

Description	Page
Engineering and operating	Software tools

Industrial PCs

Description	Page	Details
Industrial PCs	Box-PC / Displays	IndraControl VSB, VPB and VDP
Industrial PCs	Panel-PC	IndraControl VSP und VPP

HMI

Description	Page	Details
HMI	Hand-held operator panel	IndraControl VxH
HMI	compact operator terminals	IndraControl VCP
HMI	Embedded PC	IndraControl VEP

I/O

Description	Page	Details
I/O	IP 20	Inline
I/O	IP 67	Fieldline, IndraControl S67

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64 Axis ■ IndraMotion MTX performance, advanced**Type code****Firmware**

Type code	Description	Part No.:
FWA-CMP60*-MTX-09VRS-NN	Firmware IndraMotion MTX performance	R911324715
FWA-CMP70*-MTX-10VRS-NN	Firmware IndraMotion MTX advanced	R911327788

Software

Type code	Description	Part No.:
SWS-MTX***-RUN-NNVRS-D0-08A02C	License for additional 8 axes and 2 CNC channels, multiple use for up to max. 64 axes and/or 12 channels	R911307598
SWS-MTX***-RUN-NNVRS-D0-TUR1	Technology package - turning 1	R911308623
SWS-MTX***-RUN-NNVRS-D0-SFPT	Shop programming - turning (DE/EN)	R911308630
SWS-MTX***-RUN-NNVRS-D0-BAZ1	Technology package - milling 1	R911307600
SWS-MTX***-RUN-NNVRS-D0-BAZ2	Technology package - milling 2	R911307601
SWS-MTX***-RUN-NNVRS-D0-SFPM	Shop programming - milling (DE/EN)	R911308628
SWS-MTX***-RUN-NNURS-D0-GEAR	Technology package - electronic transmission	R911326176
SWS-MTX***-RUN-NNVRS-D0-SHC1	Technology package - shape cutting	R911320636

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