Rexroth
Bosch Group

CNC

8 Axis, Controller based
IndraMotion MTX compact

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Technical data

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

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Software limit switch		●
Master axis synchronisation		○ [1] [2]
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 tangental entrance		●
Threading drill with/without compensating chuck		●
Threading cutter		●
Cylinder surface transformation		○ [1] [6]
C-axis transformation		○ [1]
NC block preview, look-ahead with jerk limitation		Max. 30 blocks / ●
Spline interpolation, C1 + C2, continuous cubic splines, B-splines, NURBS		○ [1] [2]
Nanometer resolution		●
Feed functions		
Feed in mm/min or inch/min		●
Time programming		●
Feed per rotation		●
Constant cutting speed		○ [1]
Travel to dead stop		●
Torque reduction		●
Shifts and Corrections		
Mirroring, scaling, turning		●
Zero shift		●
Corrections and zero shift programmable using CPL		●
Placements (Frames)		○ [3]
2D compensation		●
Course correction with level switch		●
Tangental 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)		●
High level language programming, CPL (Customer Programming Language)		●
Grafic NC-programming		■ [4] [5]
Grafic NC-simulation		■ [4] [5]

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CNC user memory	MB	64
Static memory	MB	8
Max. size of parts program	MB	8
Max. size of parts program	MB	■
Technology cycles		
Turning		■ [1] [4]
Milling		■ [2] [5]
Drilling		■ [1] [2]
Functions		
Dwell time in seconds		●
Excelleration programming, KV-programming		●
Homing via NC-program		●
Absolute dimention, relative dimention		●
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
Number of fieldbus inputs/outputs in bytes		8,192/8,192
Multitasking		●
Max. number of PLC tasks		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		■
Drive oszilloscope		■
Logic analyser		■
Circle form test		■

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NC analyzer		■
Action recorder IndraMotion MTX acr		○
Cycle tima 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

Control hardware and interfaces

Description	Page
IndraControl L	IndraControl L40

Industrial PCs

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

I/O

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

Type code

Firmware

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Type code	Description	Part No.:
FWA-CML40*-MTX-09VRS-NN	Firmware IndraMotion MTX compact	R911324717

Software

Type code	Description	Part No.:
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-NNURS-D0-GEAR	Technology package - electronic transmission	R911326176
SWS-MTX***-RUN-NNVRS-D0-SHC1	Technology package - shape cutting	R911320636

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The data specified above only serve to describe the product.
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a certain condition or suitability for a certain application can be derived from our
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own judgment and verification. It must be remembered that our products are
subject to a natural process of wear and aging.