

Technical Data

Dimensions	mm	Fig. 1 and 2
Assembly options		flange assembly
Weight		
Type 2160A15...	kg	35
Type 2160A50...	kg	145
Max. tool weight Type 2160A15...		
without holding brake*	kg	10
with holding brake*	kg	50
Max. tool weight Type 2160A50...		
without holding brake*	kg	15
with holding brake*	kg	100
Holding brake	V/A	24/0,7
Direction of measurement		compression
Measuring range		
Type 2160A15...	kN	5, 15
Type 2160A50...	kN	25, 50
Length of stroke		
Type 2160A15...	mm	200
Type 2160A50...	mm	400
Tool holder	mm	Fig. 1 and 2
Max. movement speed		
Type 2160A15...	mm/s	250
Type 2160A50...	mm/s	150
Displacement sensor system		absolute encoder
Resolution	mm	0,001
Force sensor		piezoelectric
Temperature range	°C	10 ... 40

* Possible radial forces must be considered independent of the mounting. Tool weight must be reduced using safety option in servo controller

Protection class		IP54
Linearity in all ranges	%FSO	≤1
Service life of spindle (acc. to defined drive profile)	cycles	approx. 5 million
Short stroke		
Type 2160A15...	mm	≤70
Type 2160A50...	mm	≤120
Central lubrication connection (internal)		standard-lubrication nipple

Servo Controller	Bosch-Rexroth Type IndraDrive	
Standard Interface**		Profibus
Control voltage	VDC/W	24 (19,2 ... 28,8) /24
Power connection	V	400 (400 ... 500) ±10 %
	Hz	50/60 ±2 %
	phase	3

Evaluation Unit	Type 4734A... or Type 4740A...	
Standard Interface		Profibus
Power supply	VDC	24 ±10 %

Evaluation Unit		
NC Compact Firmware		Type 2159A
Operating Panel		Type 2158A

** Dependent of system.

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Dimensions NC Joining Module NCFB Type 2160A...

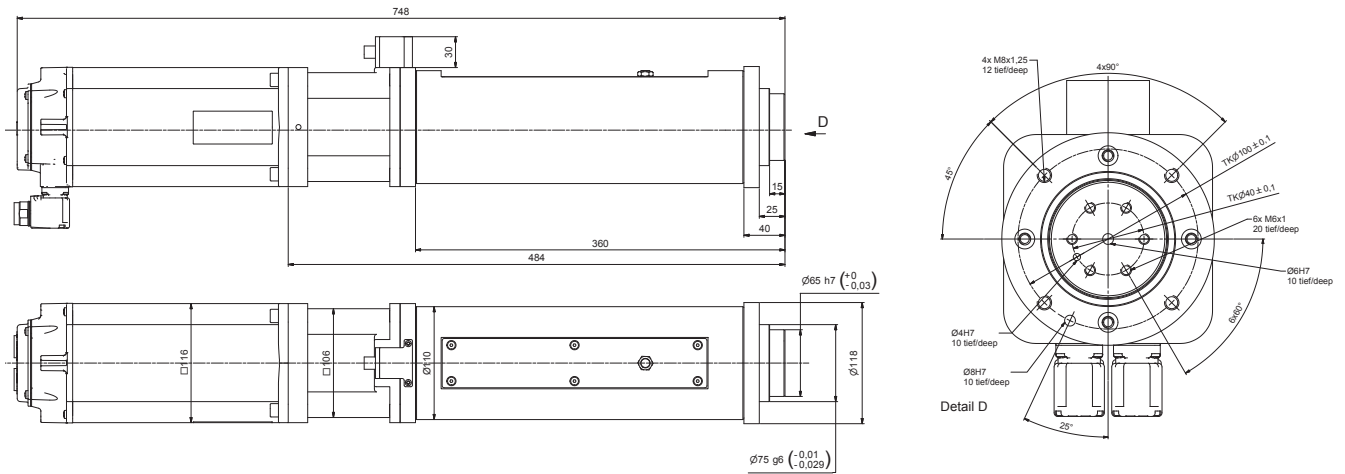


Fig. 1: Dimensions NC joining module NCFB Type 2160A15... measuring range 1: 15 kN and measuring range 2: 5 kN

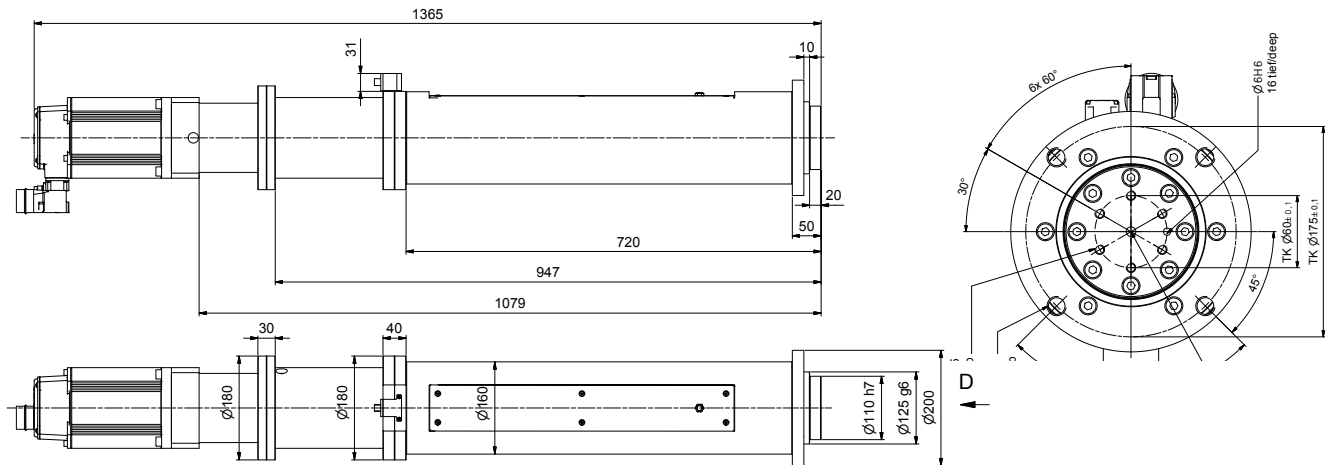


Fig. 2: Dimensions NC joining module NCFB Type 2160A50... measuring range 1: 50 kN and measuring range 2: 25 kN

Assembly may require an external guidance for the ram.
Radial forces such as tool weight must be considered.

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