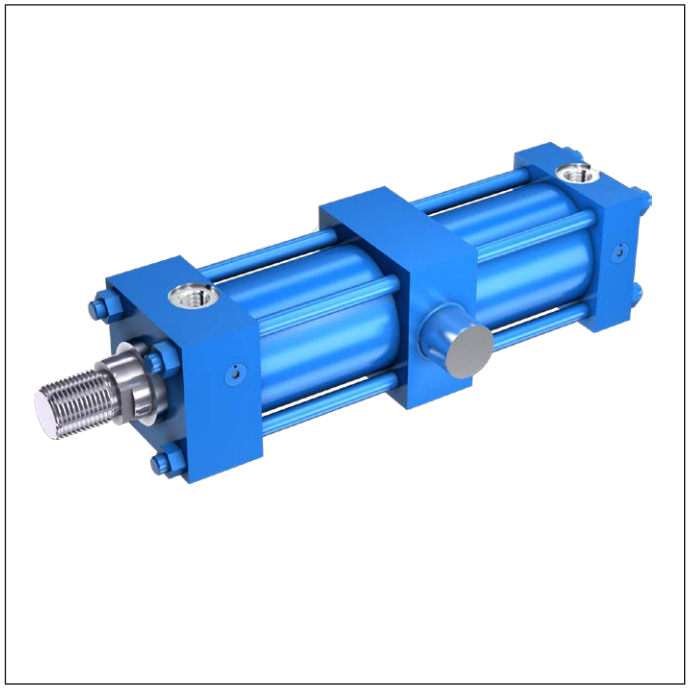
RE 17051
Edition: 2022-10
Replaces: 2022-04

rexroth
A Bosch Company

Hydraulic cylinder
Tie rod design

Series CDT3...Z



- Nominal pressure 160 bar
- Maximum operating pressure up to 210 bar
- Component series 3X

Features

- Installation dimensions according to ISO 6020-2 and NF/ISO 6020-2
- 13 types of mounting
- Piston Ø (ØAL): 25 ... 200 mm
- Piston rod Ø (ØMM): 12 ... 140 mm
- Stroke length up to 3000 mm
- Integrated guide socket for fast and easy maintenance
- Optional self-adjusting or adjustable end position damping
- Patented safety vent for easy and safe bleeding
- Easy assembly thanks to freely selectable position of the line connections at head and base

Project planning software
Interactive Catalog System
www.boschrexroth.com/tie-rod-cylinder

Contents

Technical data

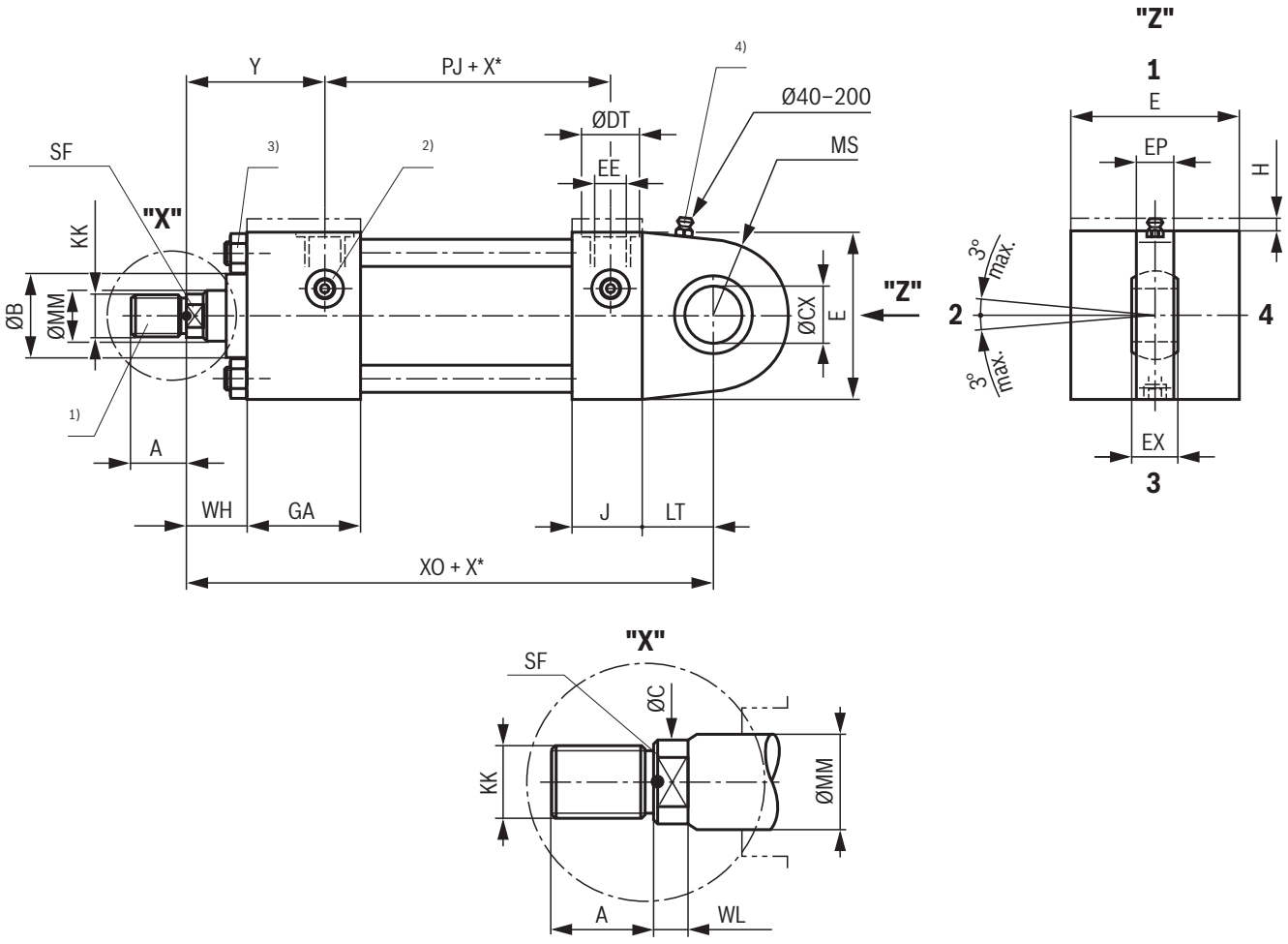
(For applications outside these values, please consult us!)

Weight for cylinder (in kg)

ØAL in mm	ØMM in mm	"MX1", "ME5", "S2"	"ME6", "MP3", "MP1"	"MP5"	"MT4"	"MX2", "MX3", "MX5"	"MT1", "MT2"	Stroke 100 mm
25	**12**	1.1	1.1	1.0	1.3	1.0	1.1	0.4
	18	1.2	1.2	1.1	1.4	1.1	1.2	0.6
32	**14**	1.5	1.6	1.4	1.8	1.4	1.5	0.5
	22	1.6	1.7	1.5	1.9	1.5	1.6	0.6
40	**18**	3.4	3.4	3.2	4.1	3.1	3.2	0.8
	22	3.4	3.4	3.2	4.1	3.1	3.2	0.9
	28	3.5	3.5	3.3	4.2	3.2	3.3	1.1
50	**22**	5.3	5.3	4.9	6.6	4.8	4.9	1.1
	28	5.4	5.4	5	6.7	4.9	5	1.3
	36	5.5	5.5	5.1	6.8	5.0	5.1	1.6
63	**28**	7.7	7.7	7.3	9.2	7.0	7.3	1.4
	36	7.9	7.8	7.4	9.3	7.1	7.4	1.7
	45	8.2	8.0	7.6	9.5	7.3	7.6	2.2
80	**36**	14	14	14	18	12	15	2.2
	45	14	14	14	17	13	14	2.6
	56	15	15	15	19	14	15	3.3
100	**45**	20	20	20	24	19	22	3.3
	56	20	20	19	24	18	22	4.1
	70	21	21	21	25	19	23	5.1
125	**56**	38	39	38	46	35	43	6.3
	70	38	39	38	46	35	43	7.3
	90	39	40	39	48	37	44	9.3
160	**70**	62	67	63	78	59	64	8.7
	90	63	68	64	79	60	66	10.7
	110	64	69	65	80	61	67	13.2
200	**90**	112	120	115	147	107	114	13.4
	110	114	122	116	148	108	116	15.8
	140	115	123	117	149	109	117	20.5

Swivel head, clevis bracket and trunnion mounting bearing block see pages 34 ... 39.

Dimensions: Self-aligning clevis at base "MP5"
(dimensions in mm)



1 ... 4 = Position of the line connections

ØAL	ØCX	EP h13	EX	LT min	XO ±1.5	MS max
25	$12_{-0.008}$	8	$10_{-0.12}$	16	130	20
32	$16_{-0.008}$	11	$14_{-0.12}$	20	148	22.5
40	$20_{-0.012}$	13	$16_{-0.12}$	25	178	29
50	$25_{-0.012}$	17	$20_{-0.12}$	31	190	33
63	$30_{-0.012}$	19	$22_{-0.12}$	38	206	40
80	$40_{-0.012}$	23	$28_{-0.12}$	48	238	50
100	$50_{-0.012}$	30	$35_{-0.12}$	58	261	62
125	$60_{-0.015}$	38	$44_{-0.15}$	72	304	80
160	$80_{-0.015}$	47	$55_{-0.15}$	92	337	100
200	$100_{-0.020}$	57	$70_{-0.20}$	116	415	120

Dimensions: Self-aligning clevis at base "MP5" (dimensions in mm)

ØAL	ØMM	DIN / ISO [5] (for operating pressure up to 160 bar)					ISO [6] (for operating pressure up to 210 bar)					
		KK [5]	A [5] max	ØC	SF	WL	KK [6]	A [6] max	ØC	SF	WL	ØB f9
25	12	M10 x 1.25	14	11	10	5	–	–	–	–	–	24
	18	M10 x 1.25	14	16.5	14	5	M14 x 1.5	18	16.5	14	5	30
32	14	M12 x 1.25	16	13	12	5	–	–	–	–	–	26
	22	M12 x 1.25	16	20.5	18	5	M16 x 1.5	22	20.5	18	5	34
40	18	M14 x 1.5	18	16.5	14	5	–	–	–	–	–	30
	22	M14 x 1.5	18	20.5	18	5	M16 x 1.5	22	20.5	18	5	34
	28	M14 x 1.5	18	26	22	7	M20 x 1.5	28	26	22	7	42
50	22	M16 x 1.5	22	20.5	18	5	–	–	–	–	–	34
	28	M16 x 1.5	22	26	22	7	M20 x 1.5	28	26	22	7	42
	36	M16 x 1.5	22	34	30	8	M27 x 2	36	34	30	8	50
63	28	M20 x 1.5	28	26	22	7	–	–	–	–	–	42
	36	M20 x 1.5	28	34	30	8	M27 x 2	36	34	30	8	50
	45	M20 x 1.5	28	43	36	10	M33 x 2	45	43	36	10	60
80	36	M27 x 2	36	34	30	8	–	–	–	–	–	50
	45	M27 x 2	36	43	36	10	M33 x 2	45	43	36	10	60
	56	M27 x 2	36	54	46	10	M42 x 2	56	54	46	10	72
100	45	M33 x 2	45	43	36	10	–	–	–	–	–	60
	56	M33 x 2	45	54	46	10	M42 x 2	56	54	46	10	72
	70	M33 x 2	45	68	60	15	M48 x 2	63	68	60	15	88
125	56	M42 x 2	56	54	46	10	–	–	–	–	–	72
	70	M42 x 2	56	68	60	15	M48 x 2 [7]	63	68	60	15	88
	90	M42 x 2	56	88	75	15	M64 x 3 [7]	85	88	75	15	108
160	70	M48 x 2	63	68	60	15	–	–	–	–	–	88
	90	M48 x 2	63	88	75	15	M64 x 3	85	88	75	15	108
	110	M48 x 2	63	106	95	15	M80 x 3 [7]	95	106	95	15	133
200	90	M64 x 3	85	88	75	15	–	–	–	–	–	108
	110	M64 x 3	85	106	95	15	M80 x 3	95	106	95	15	133
	140	M64 x 3	85	136	120	15	M100 x 3 [7]	112	136	120	15	163

ØAL	E	Line connection "B"		Line connection "R"		GA	H [8]	J	PJ ±1.25	WH ±2	Y ±2
		EE	ØDT min	EE	ØDT min						
25	40 ±1.5	G1/4	20.7	M14 x 1.5	21	46.5	5	22.5	53	15	50
32	45 ±1.5	G1/4	20.7	M14 x 1.5	21	48	5	25	56	25	60
40	63 ±1.5	G3/8	24.5	M18 x 1.5	26	52.5	–	33.5	73	25	62
50	75 ±1.5	G1/2	29.6	M22 x 1.5	29	57.5	–	33.5	74	25	67
63	90 ±1.5	G1/2	29.6	M22 x 1.5	29	57.5	–	35.5	80	32	71
80	115 ±1.5	G3/4	36.9	M27 x 2	34	67	–	41	93	31	77
100	130 ±2	G3/4	36.9	M27 x 2	34	70	–	43	101	35	82
125	165 ±2	G1	46.1	M33 x 2	43	76	–	54	117	35	86
160	205 ±2	G1	46.1	M33 x 2	43	83	–	58	130	32	86
200	245 ±2	G1 1/4	54	M42 x 2	52	107.5	–	77.5	165	32	98

ØAL = Piston Ø
ØMM = Piston rod Ø
X* = Stroke length

1) Piston rod ends "E" and "T" see page 33
2) Position of the line connections and the bleeding see page 31
3) Tightening torque see page 55
4) Grease nipple M6 DIN 71412 from piston Ø 40 mm
5) Thread for piston rod ends "F" and "H"
6) Thread for piston rod ends "D" and "K"
7) On request
8) "H" dimension always in line connection position