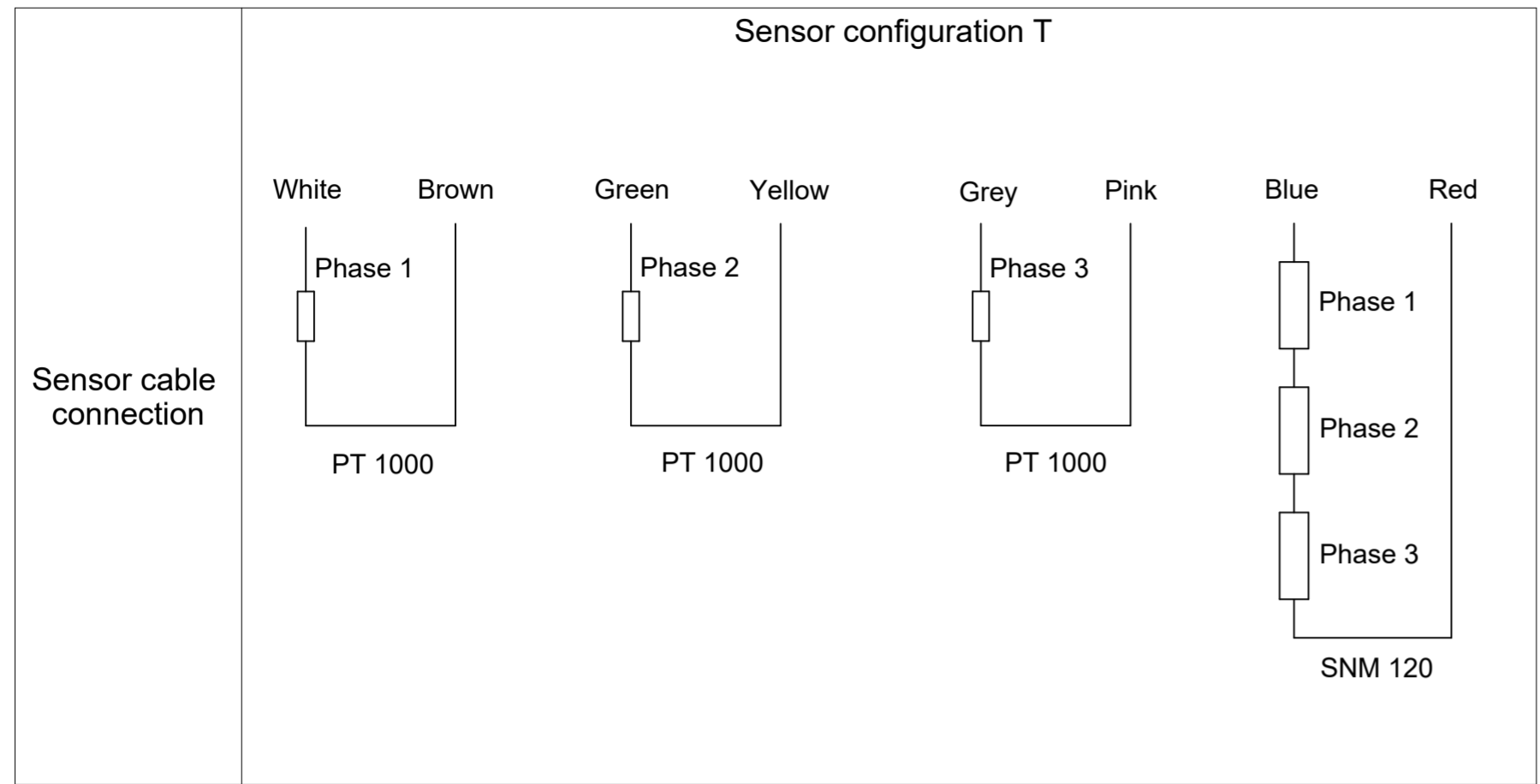


Torque Motors

TMC INTERFACE DRAWINGS

ETEL

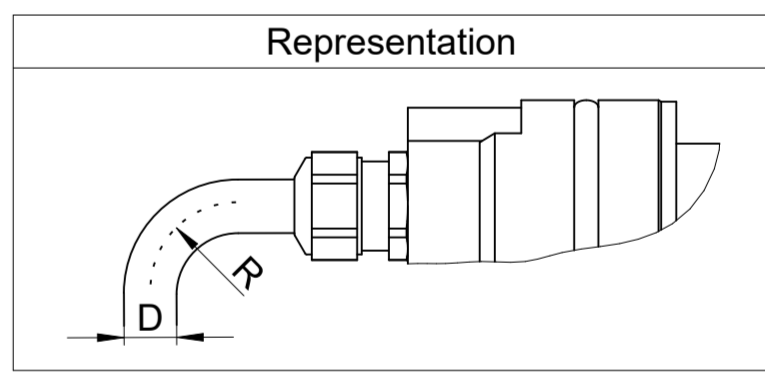


Power cable connection

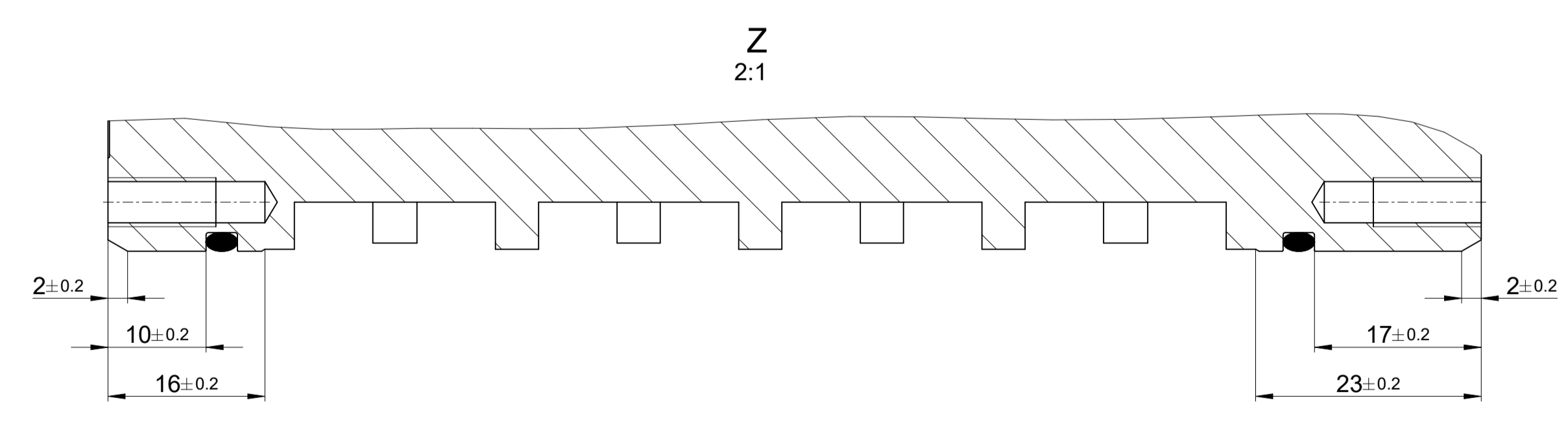
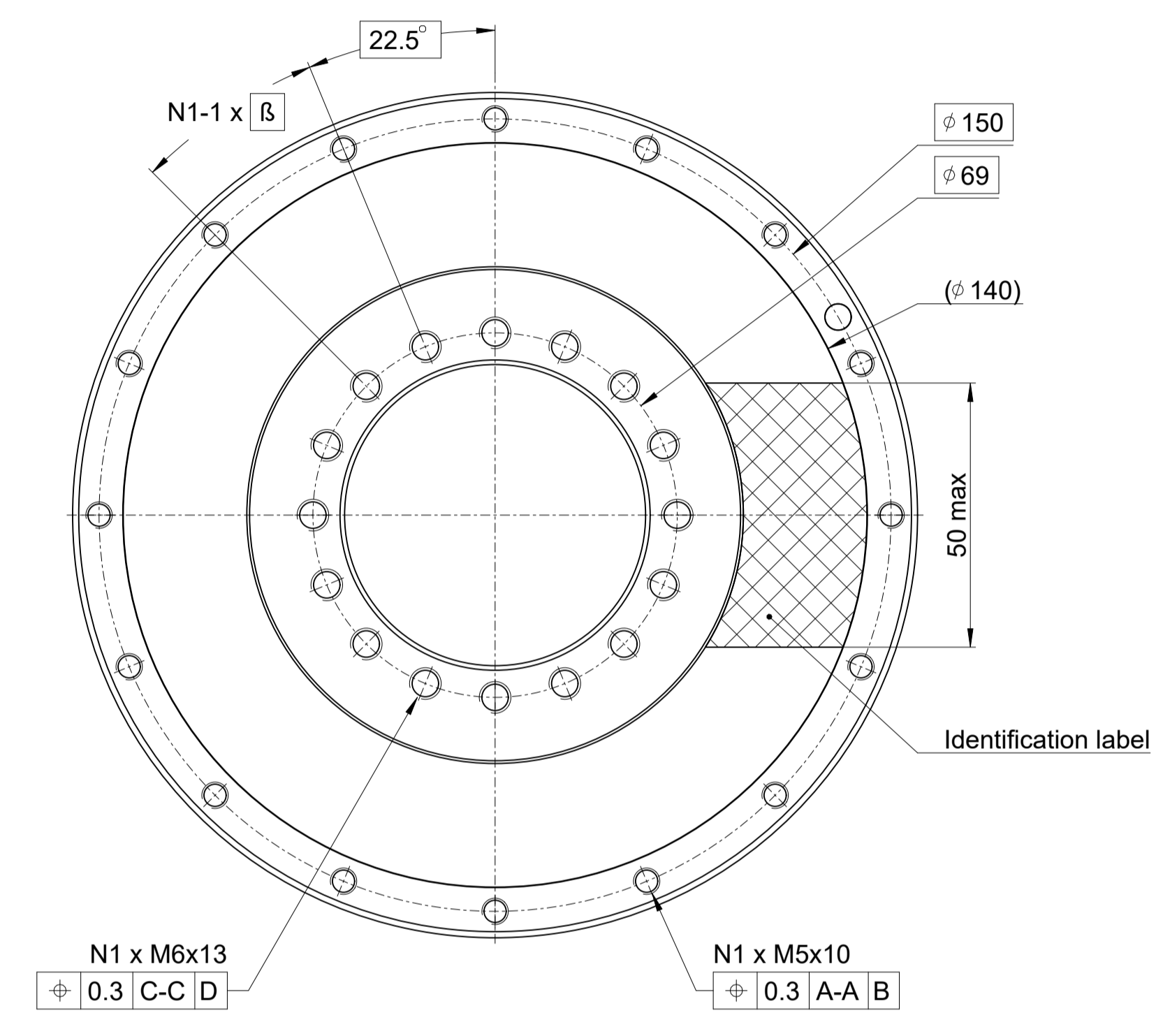
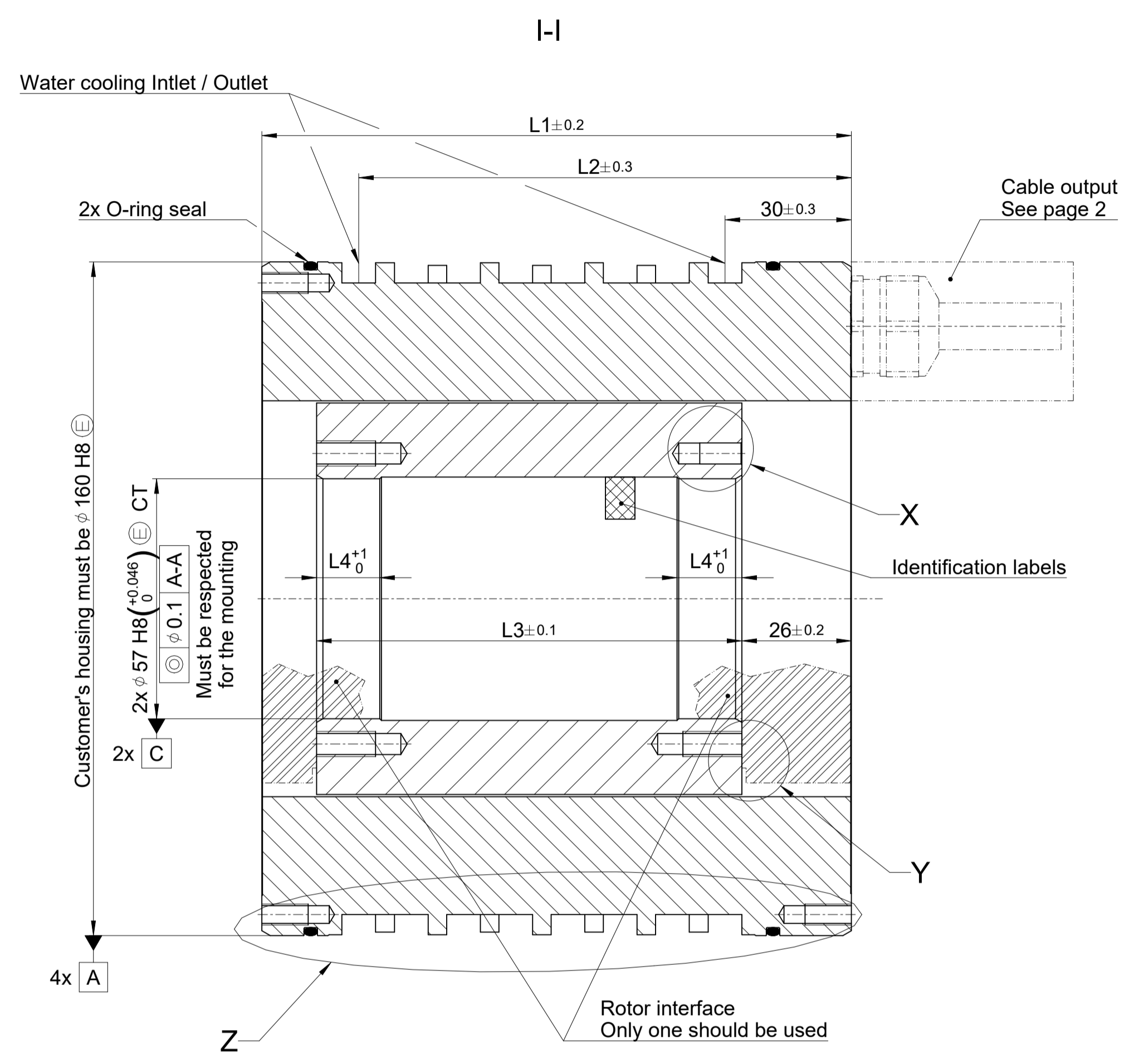
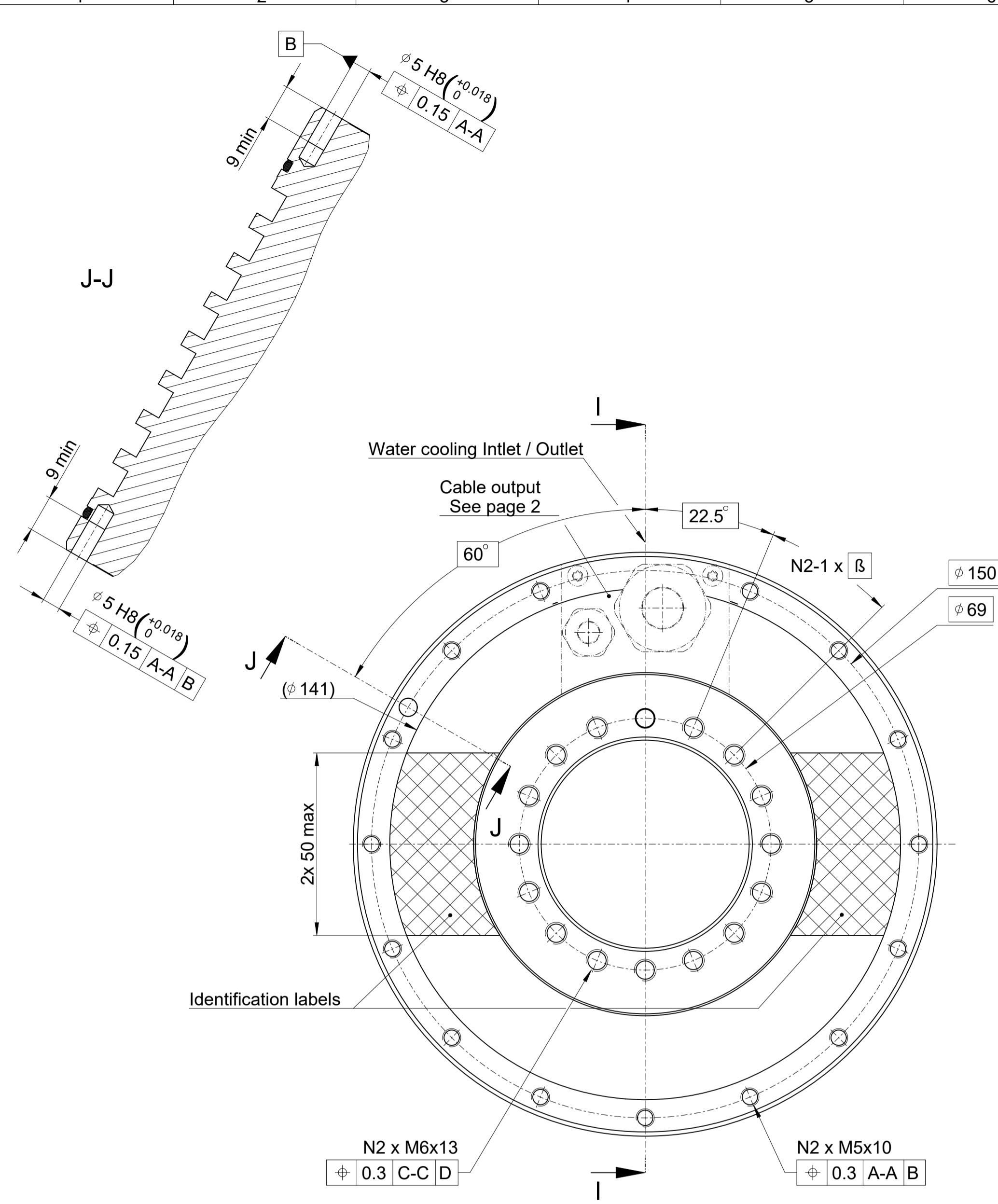
Color and cable number	Function	Drawing
Black cable with number 1 or U / Wire 1	Phase 1 (PH1)	
Black cable with number 2 or V / Wire 2	Phase 2 (PH2)	
Black cable with number 3 or W / Wire 3	Phase 3 (PH3)	
Black cable with yellow and green sleeve / Yellow and green wire	Ground (GND)	

Cable cross-section (mm²)

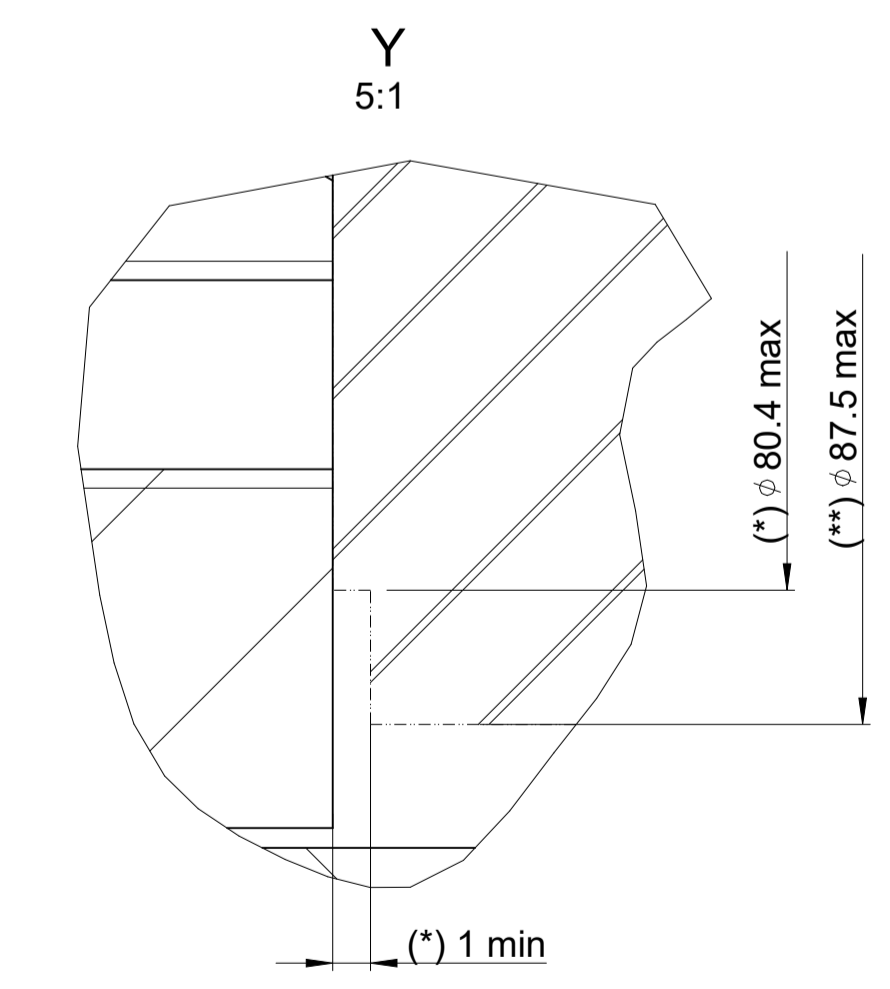
Characteristics	4 x 1.5	4 x 2.5	4 x 4	1 x 2.5	1 x 4	1 x 6	1 x 10	Sensor cable
Applicable motors	TMC0140 TMC0290	TMC0140 TMC0290	TMC0290	TMC0360 TMC0450	TMC0530	TMC0360	TMC0450 TMC0530	All TMC
Minimum bending radius for fixed cable	R = 4 x D	R = 4 x D	R = 4 x D	R = 4 x D	R = 4 x D	R = 4 x D	R = 4 X D	R = 6 X D
Minimum bending radius for moving cable	R = 7.5 x D	R = 7.5 x D	R = 7.5 x D	R = 7.5 x D	R = 7.5 x D	R = 7.5 x D	R = 7.5 X D	R = 12 X D



Text:		ID number:	
		Change No. C171406-35	
		Released: 30.07.2024	
	Original drawing	TMC sensor config. and cables prop. (interface) TMC config. capteur et prop. câbles (interface)	
Scale	Format		
Dimensions in mm	1:1	A2	Tolerances as per ISO 8015 : 2011 Tolérances selon ISO 8015 : 2011
Mating Dimensions / Cotes d'encombrement			Dimensions without tolerance Dimensions sans tolérances ± 0,2
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ETEL ETEL S.A. 2112 Môtiers SWITZERLAND		Version	Revision
		Sheet	Page
		1395916-02 - A-01	
		Document number	
		1 of 1	



Safety clearance
Do not put any parts outside of hatched area



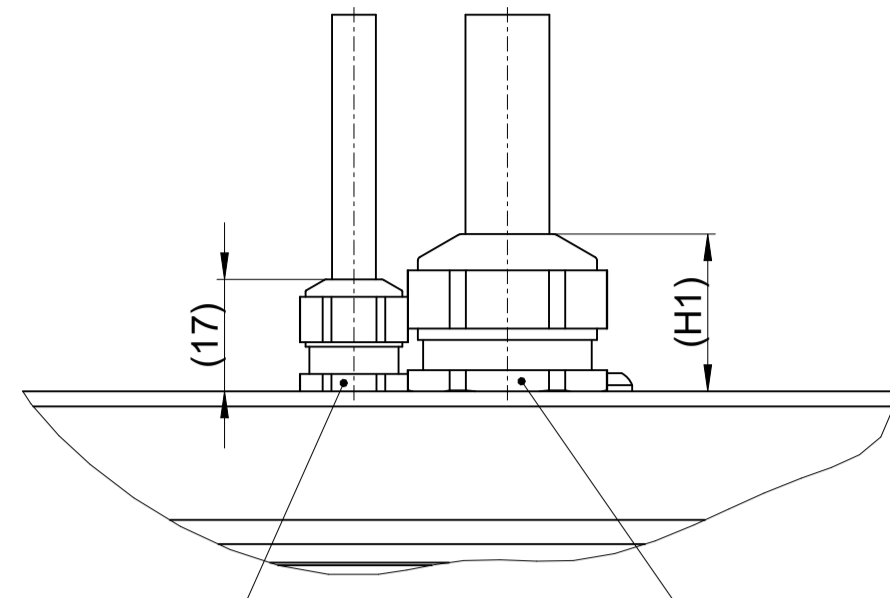
(*) Magnet safety clearance
(**) CE clearance. Rotor shaft must be earthed.

Designation	L1	L2	L3	L4	N1	N2	β
TMC0140-030	70	47	31	10	8	8	45°
TMC0140-050	90	67	51	15	8	8	45°
TMC0140-070	110	87	71	15	8	8	45°
TMC0140-100	140	117	101	15	16	15	22.5°
TMC0140-150	190	167	151	15	16	15	22.5°
TMC0140-200	240	217	202	15	16	15	22.5°

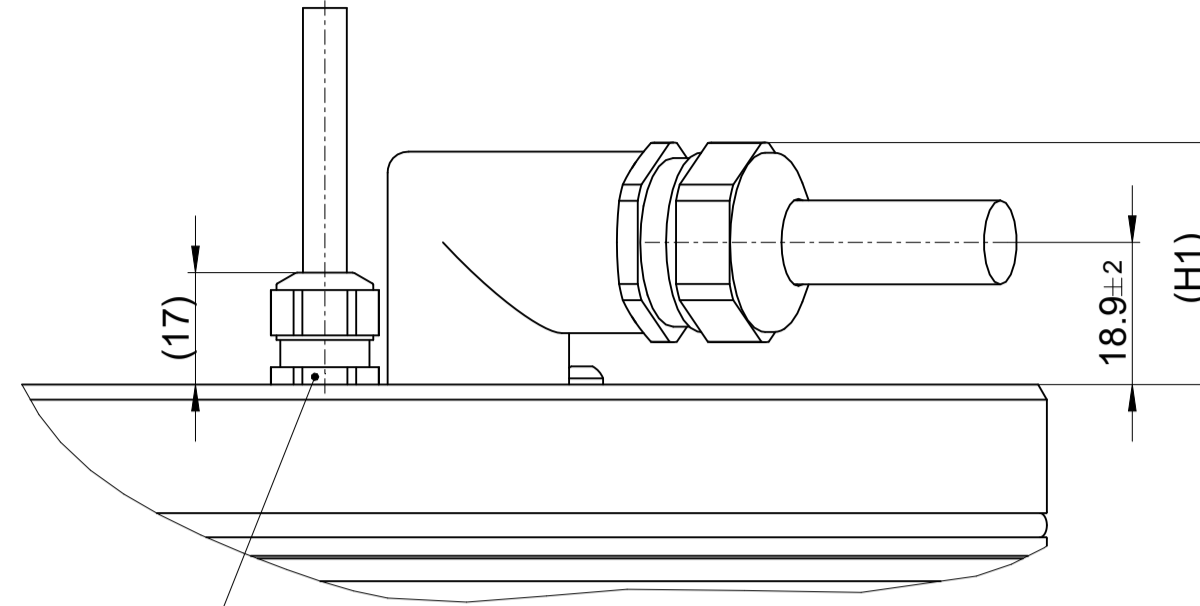
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Original drawing		Change No.	30.07.2024
Scale		Released:	
Format		TMC0140-###-####-O#-AA#	
Dimensions in mm		TMC0140-###-####-O#-AA#	
1:1 A1		Mating Dimensions / Coles d'encrochement	
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ETEL ETEL S.A. 2112 Möllers SWITZERLAND		Version Revision Sheet Page	1442908-00 - A-01 Document number

Type 1

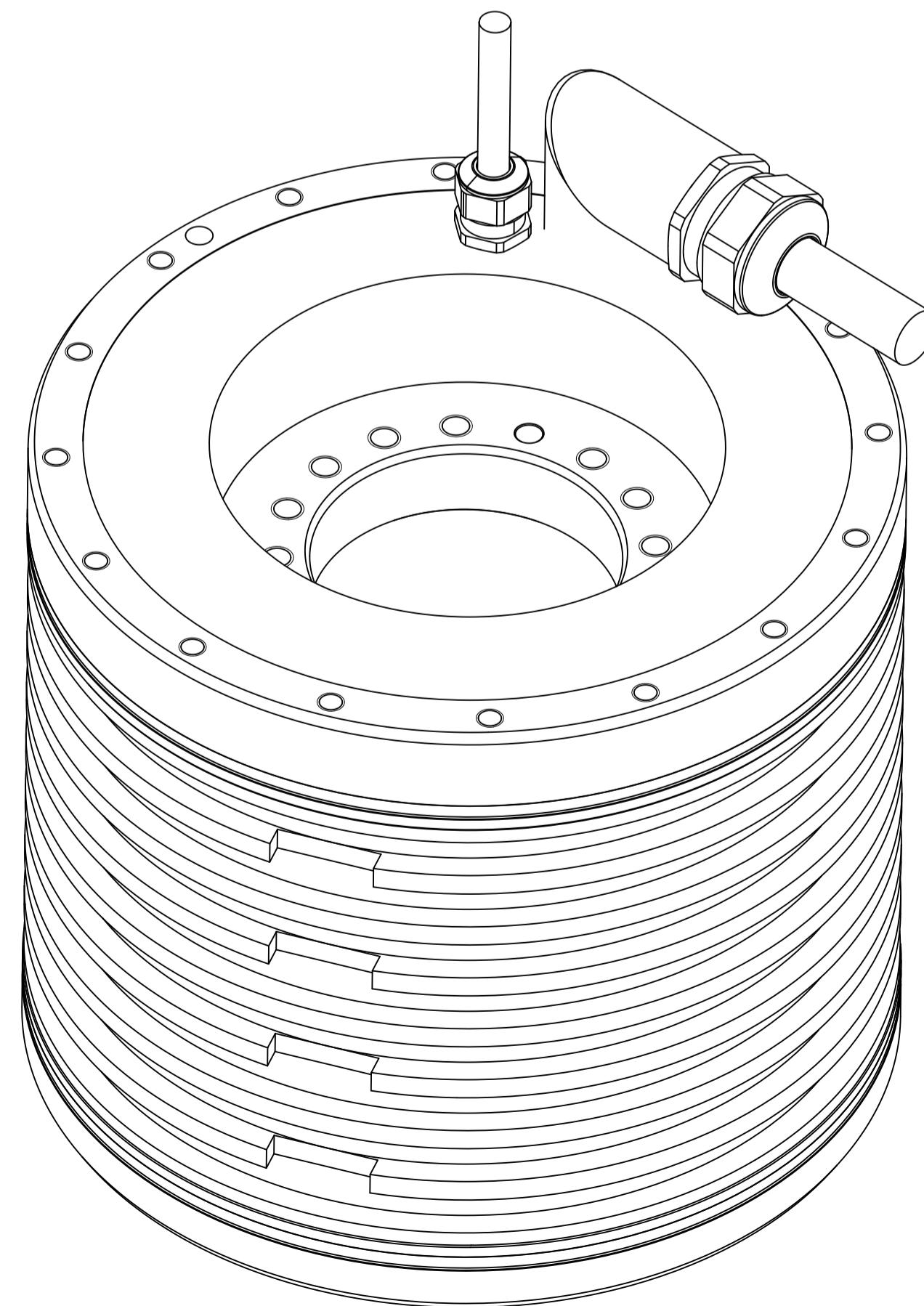
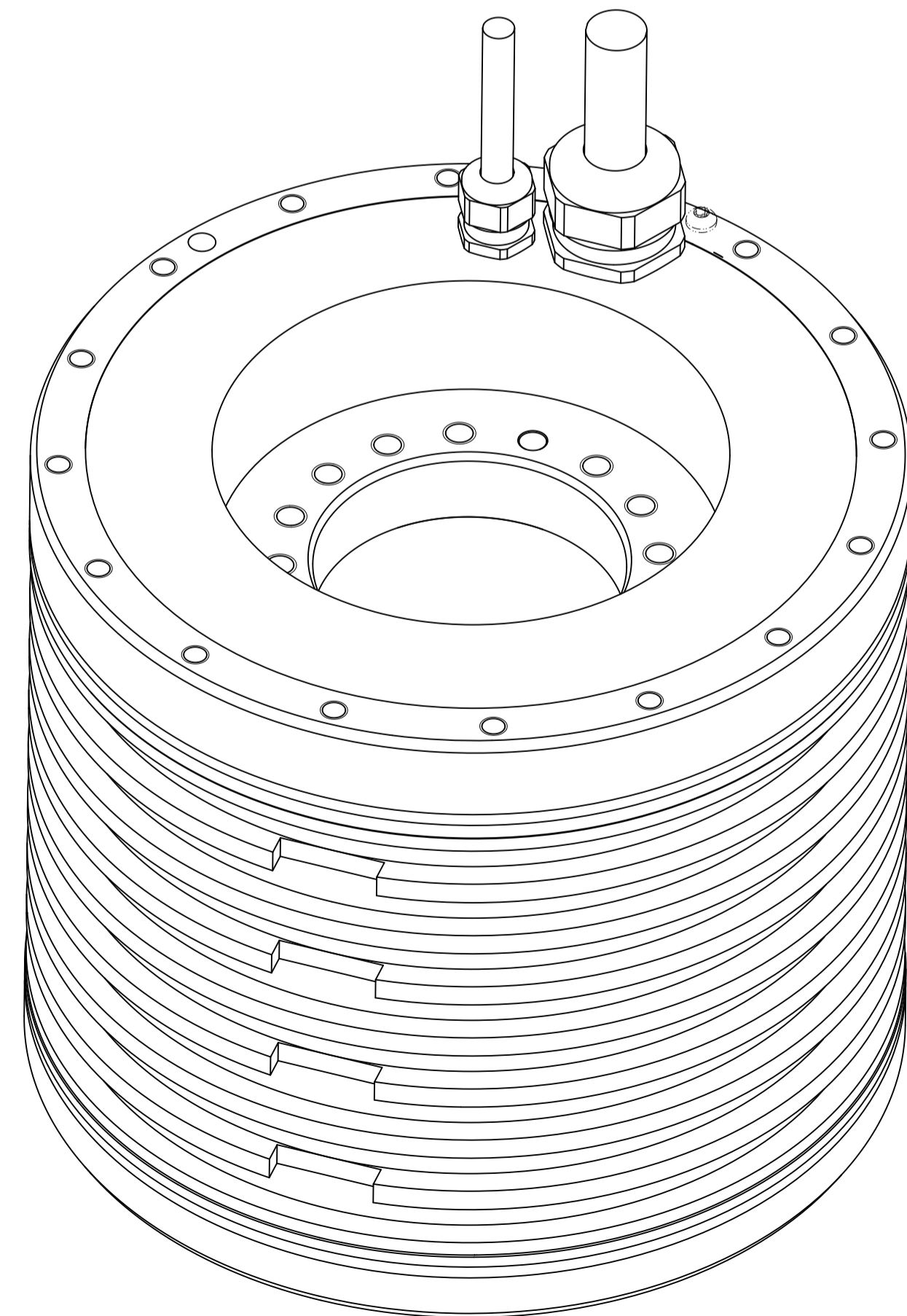
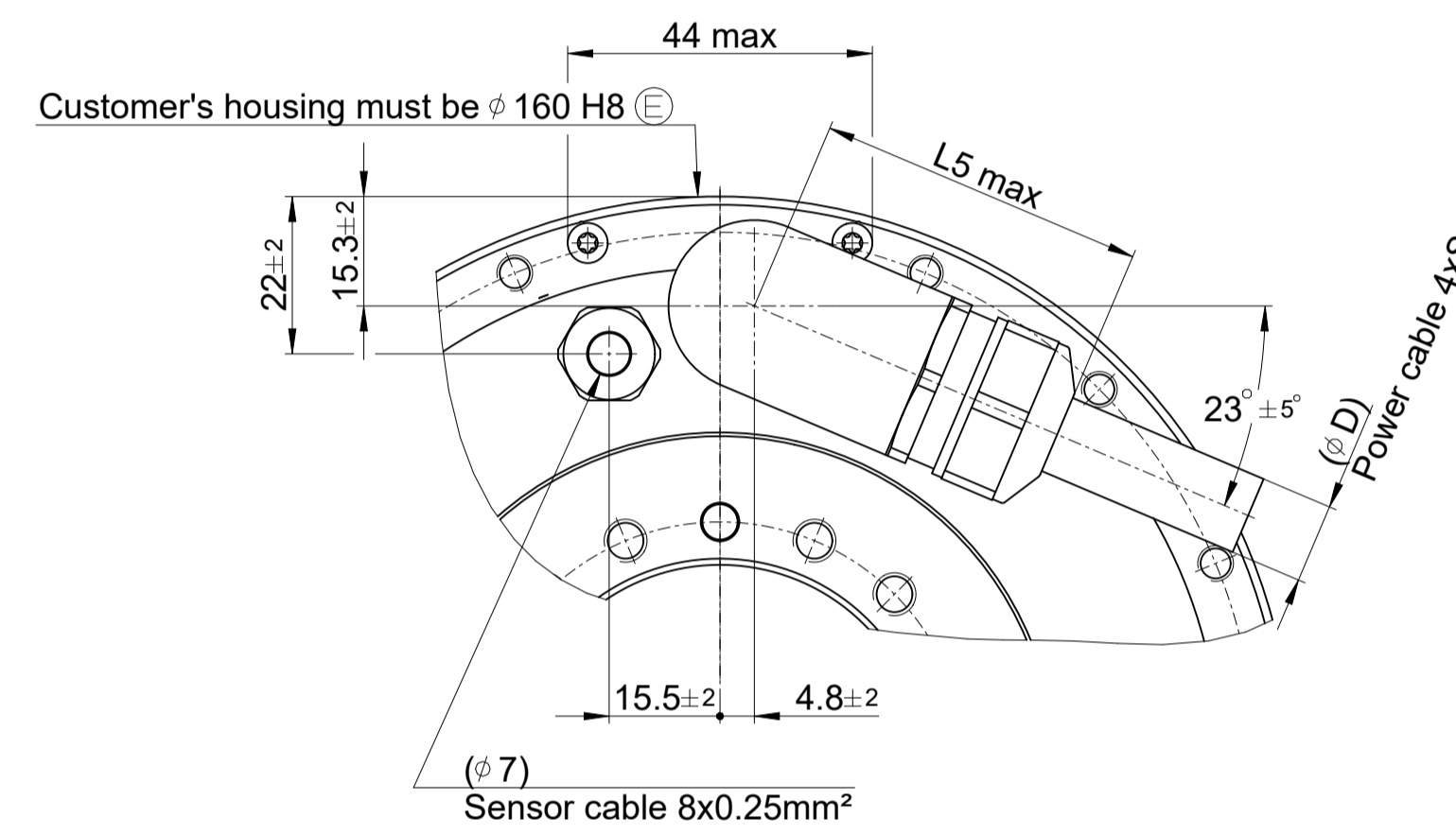
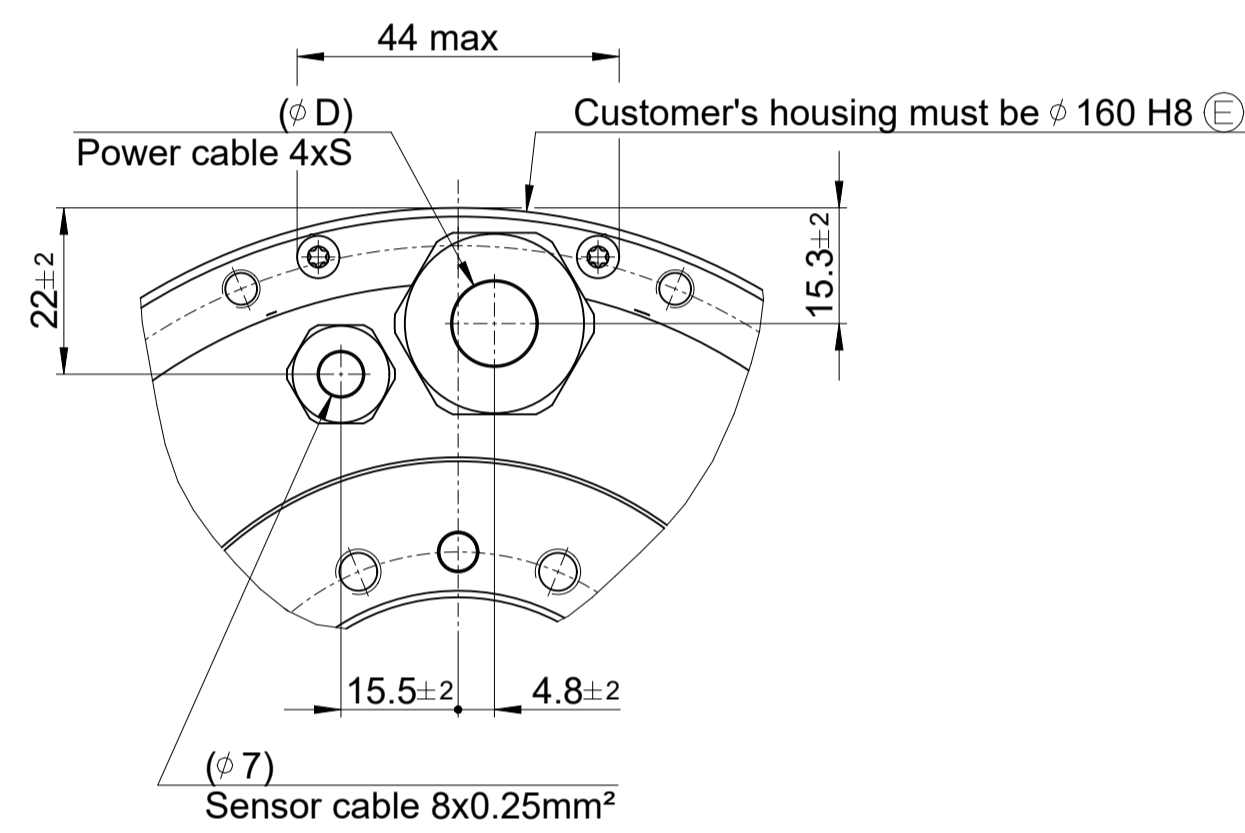
Type 2



Wrench size: 13mm Wrench size: SW mm

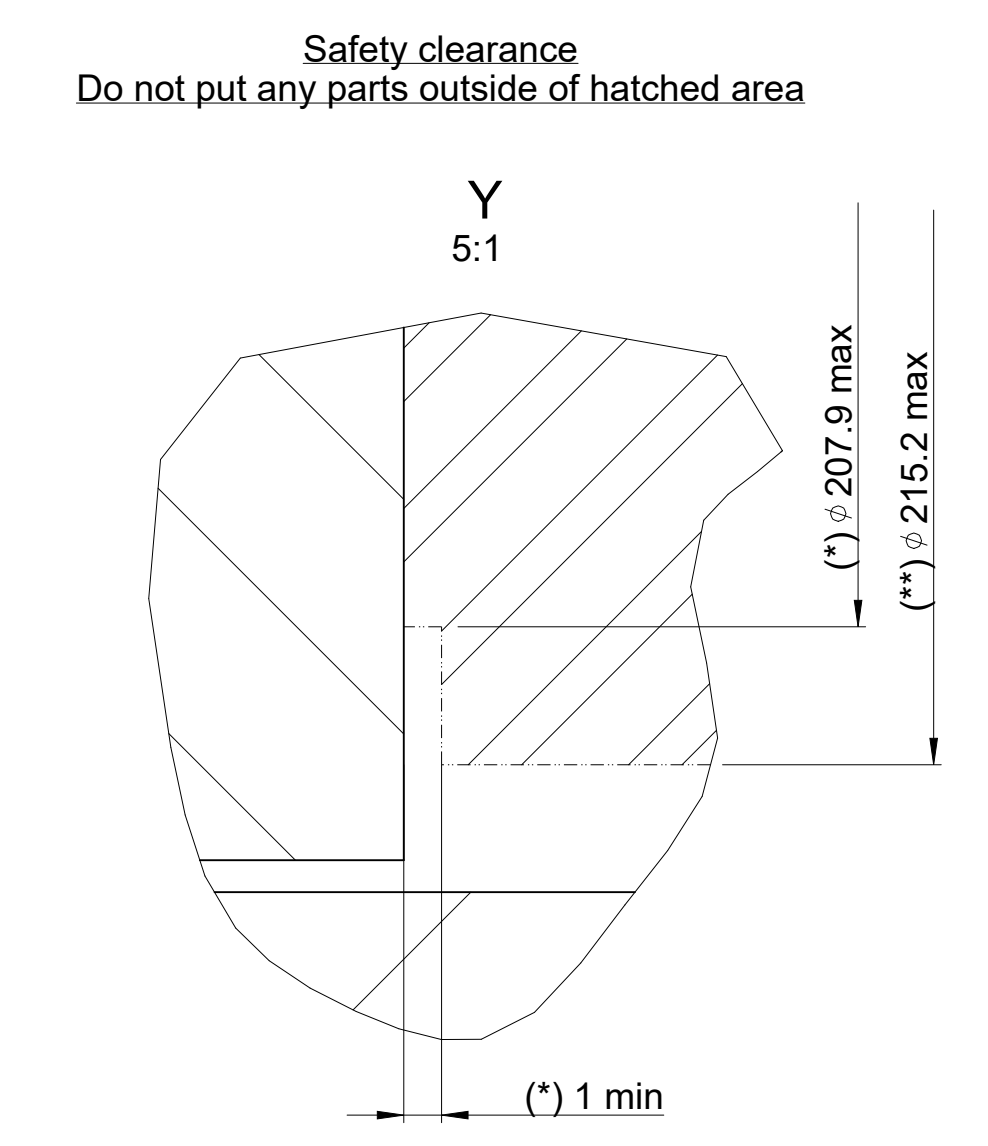
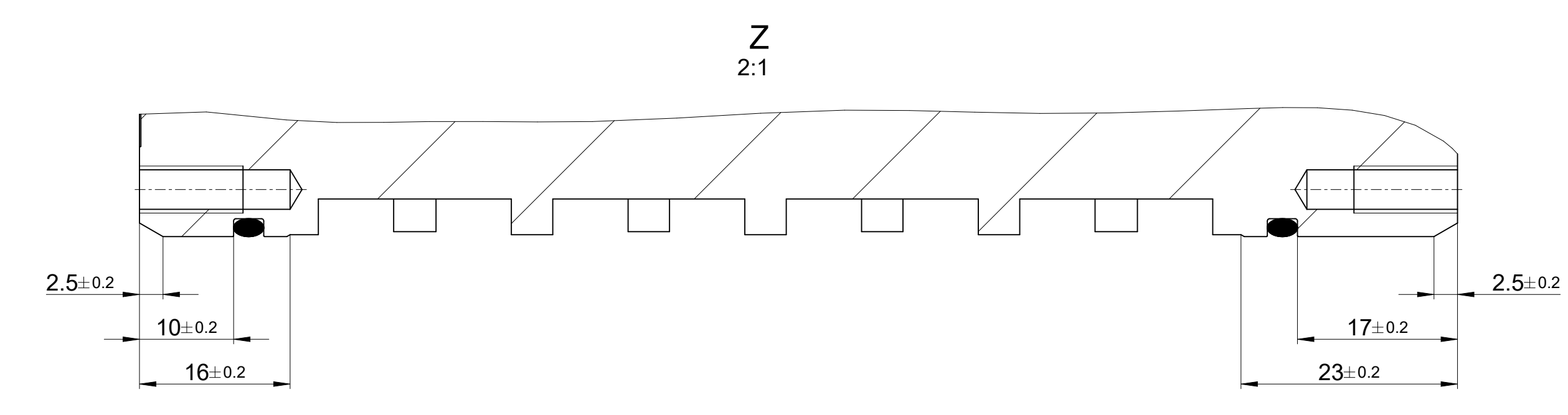
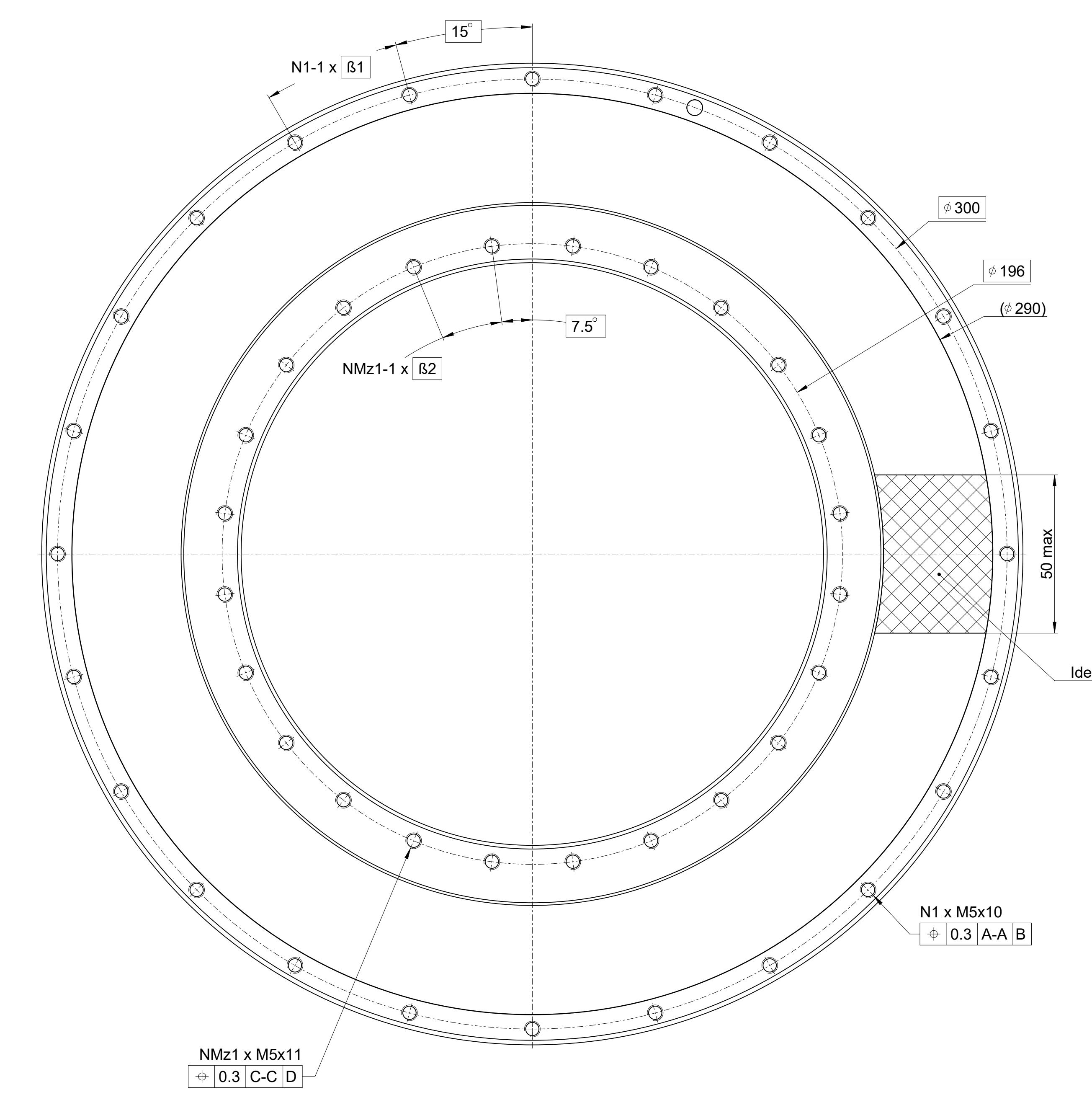
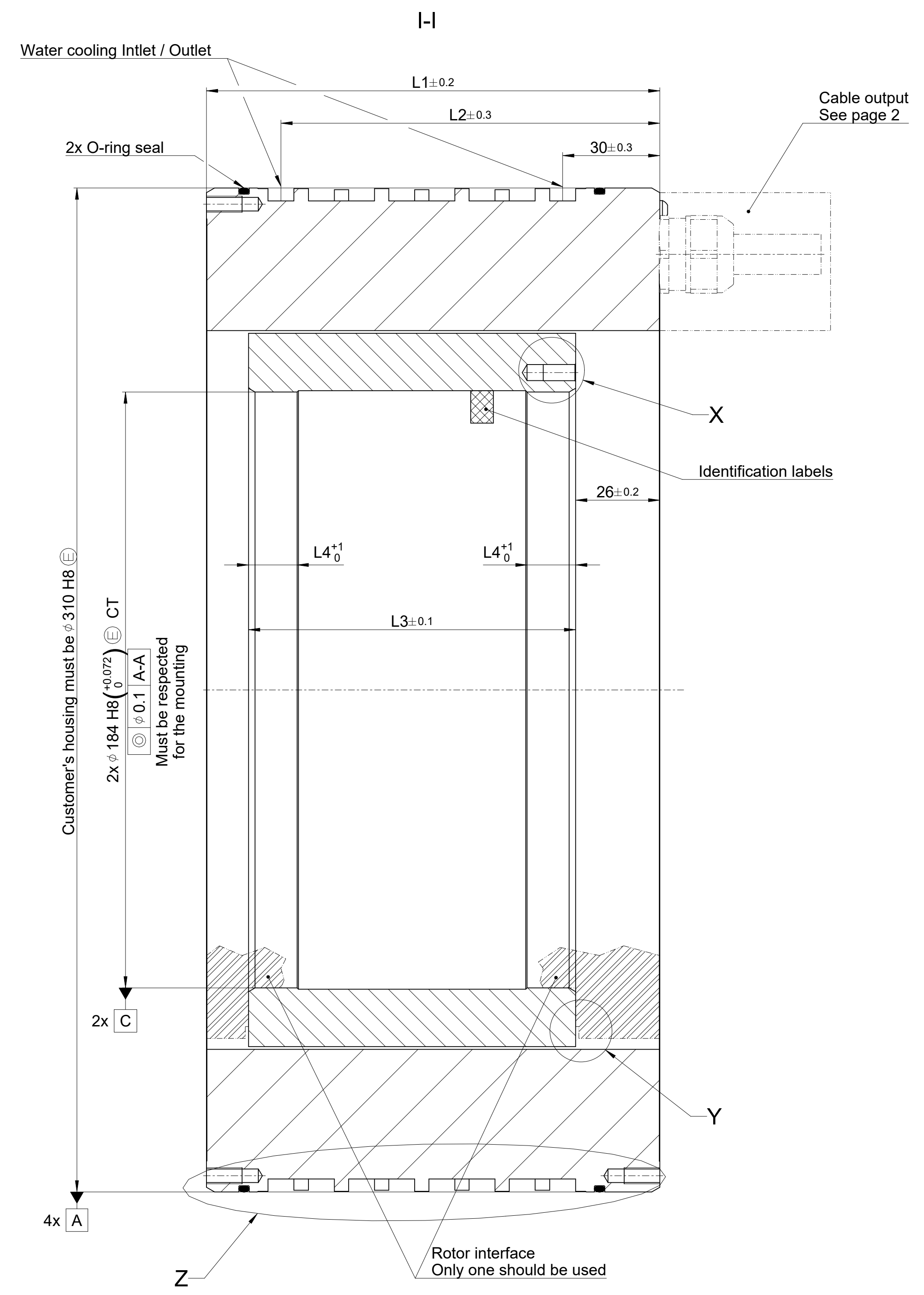
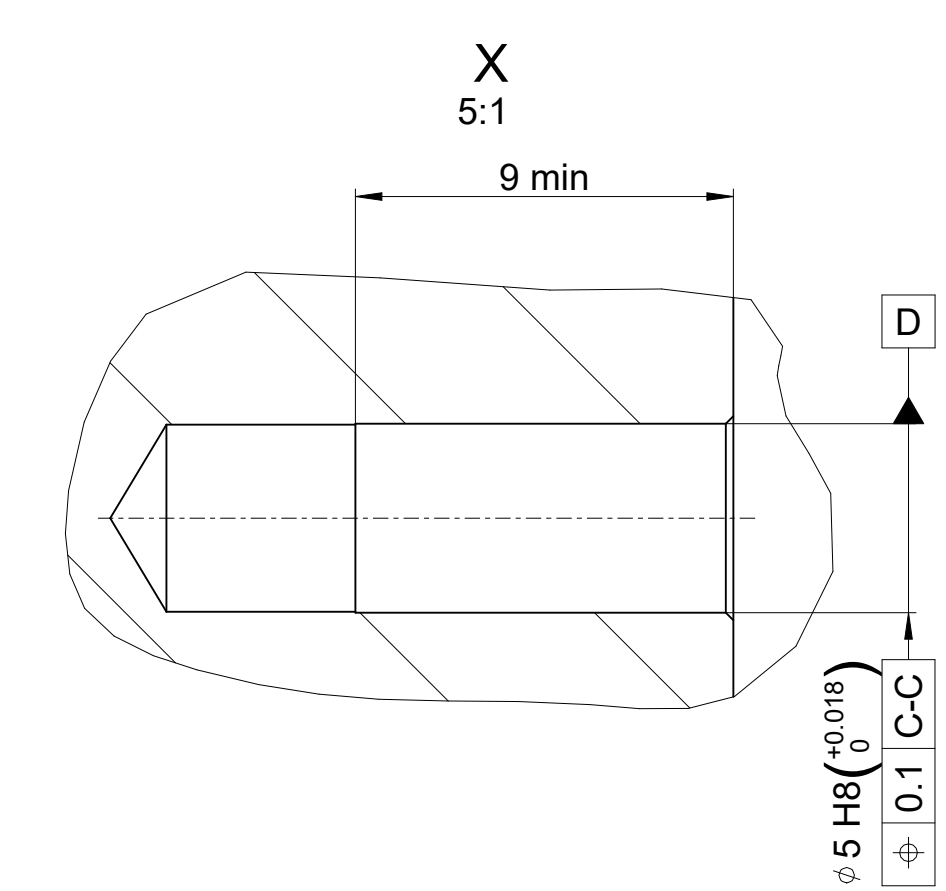
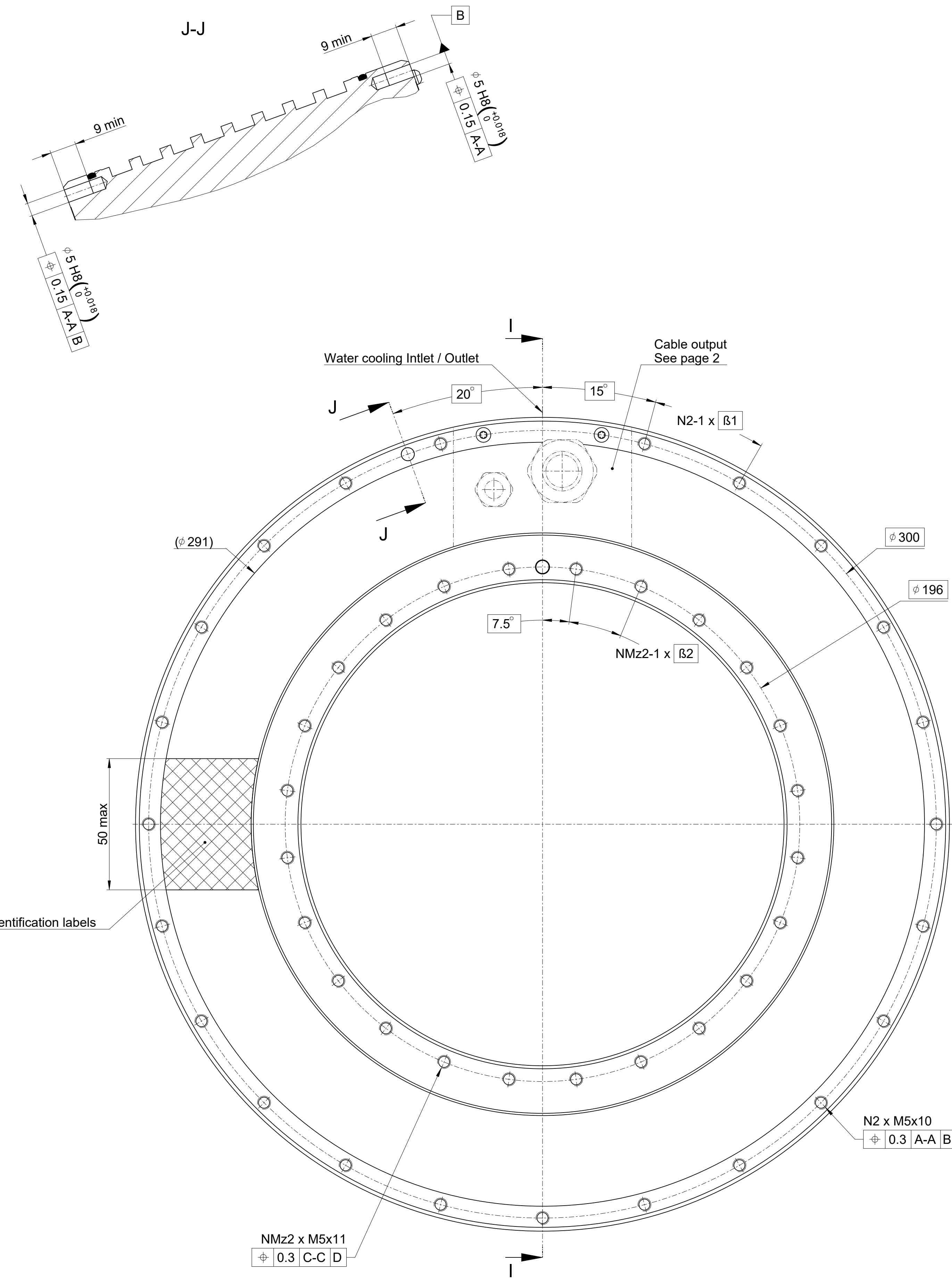


Wrench size: 13mm



Designation	Output type	S=Wire section	L5	H1	D	SW
[-]	[-]	[mm ²]	[mm]	[mm]	[mm]	[mm]
TMC0140-###-TA#S#	Type 1	1.5	-	26	9.6	24
TMC0140-###-TA#E#	Type 2		51	34		
TMC0140-###-WA#S#	Type 1	2.5	-	26	11.1	
TMC0140-###-WA#E#	Type 2		51	34		

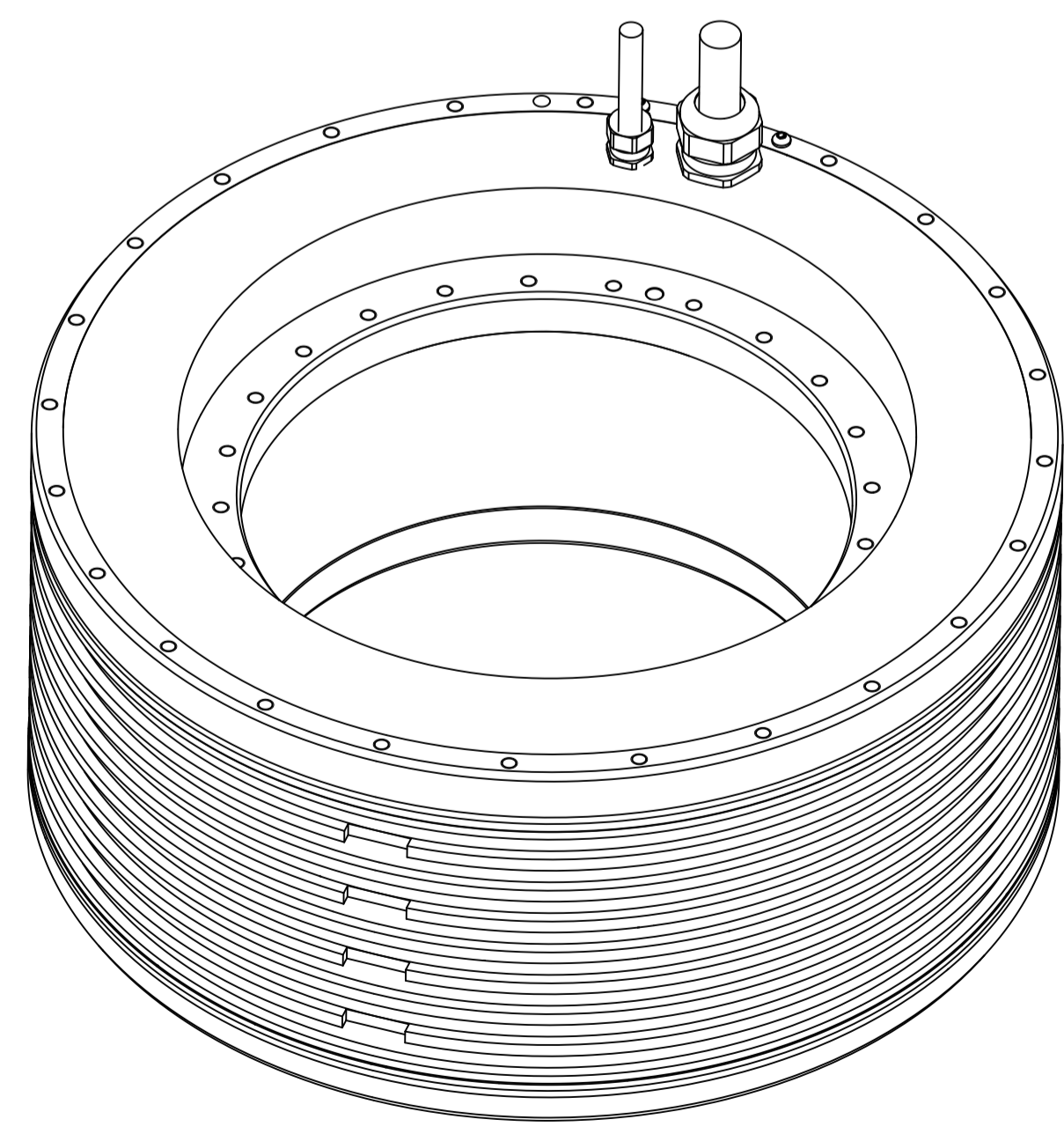
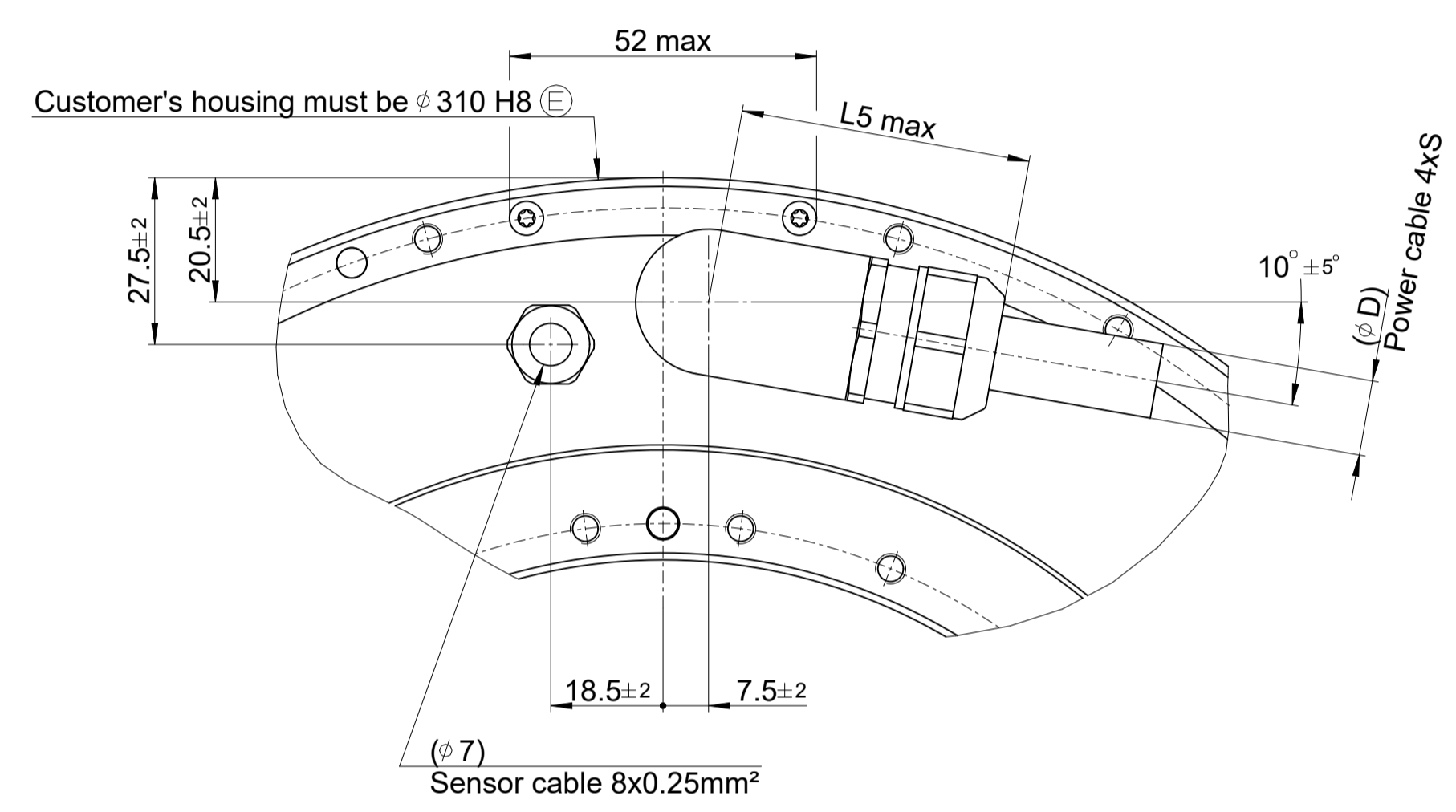
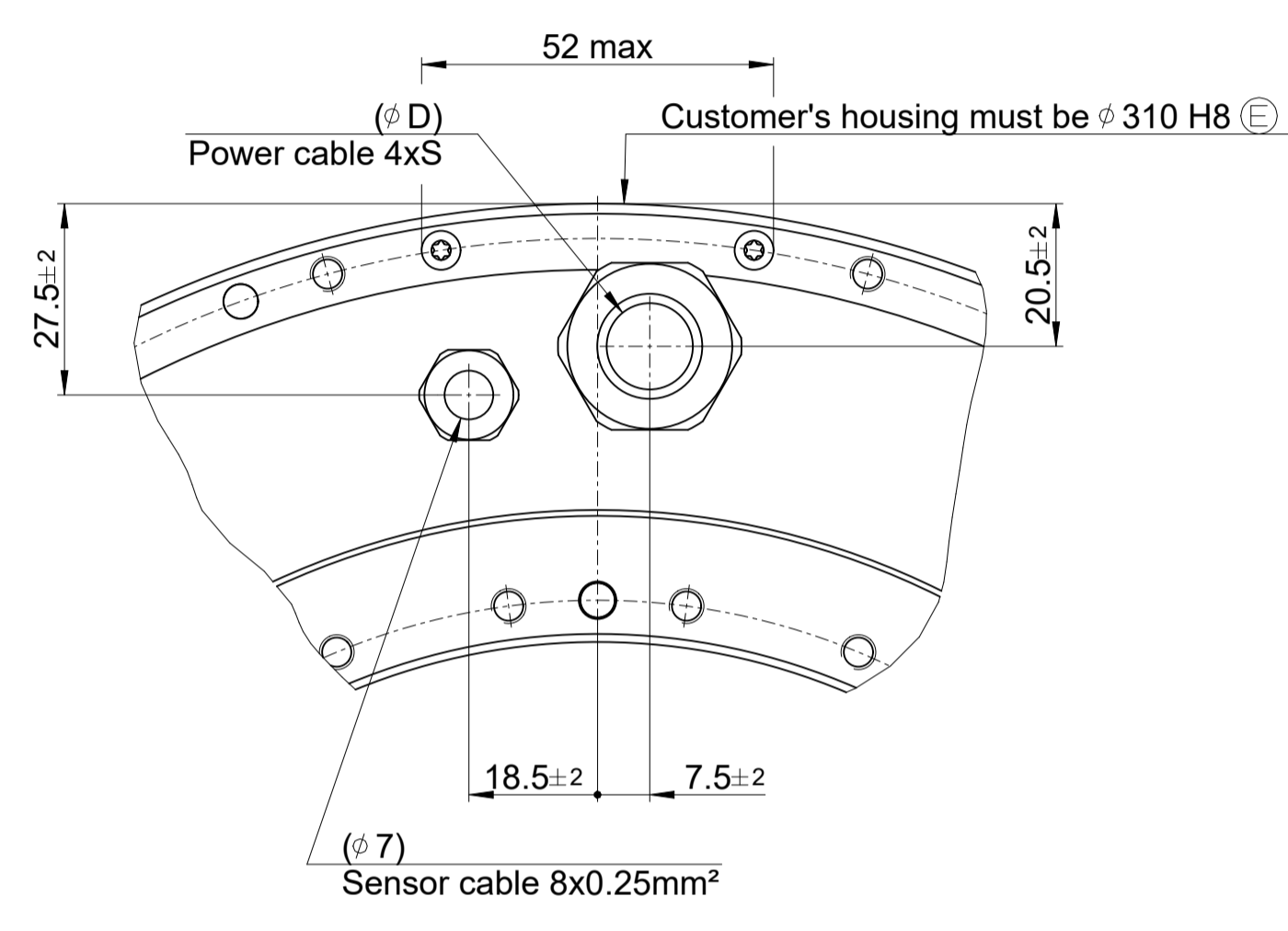
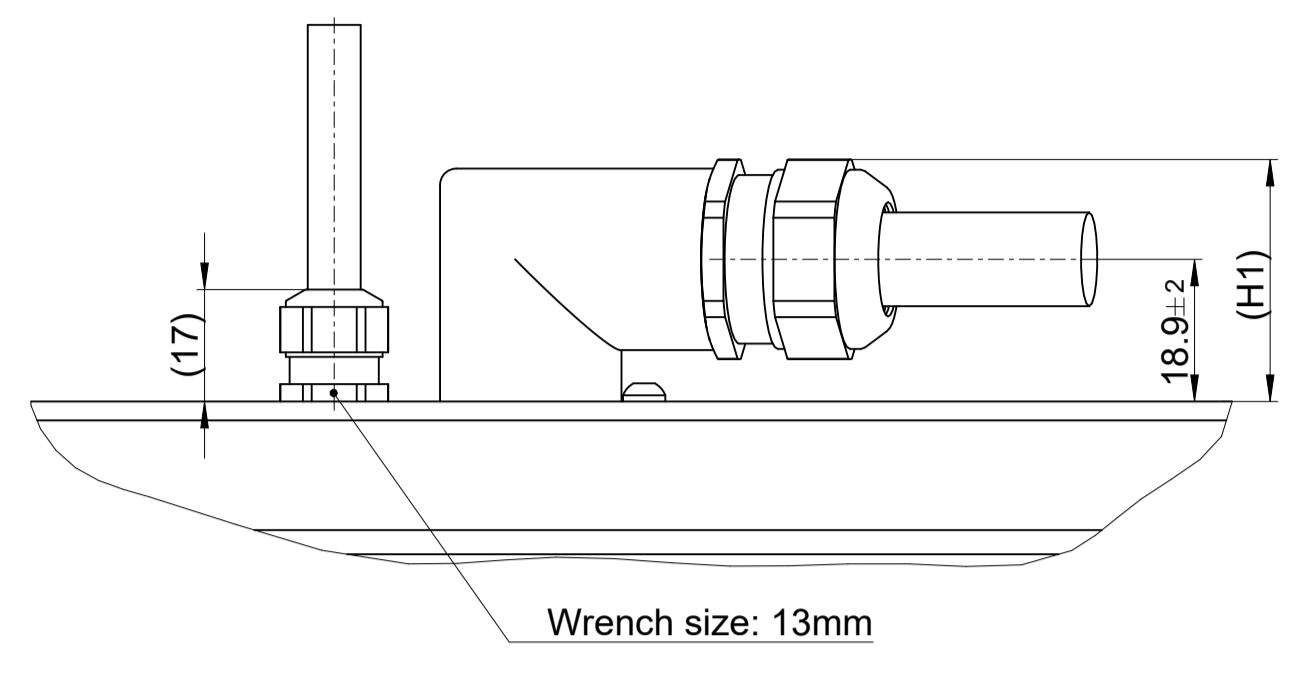
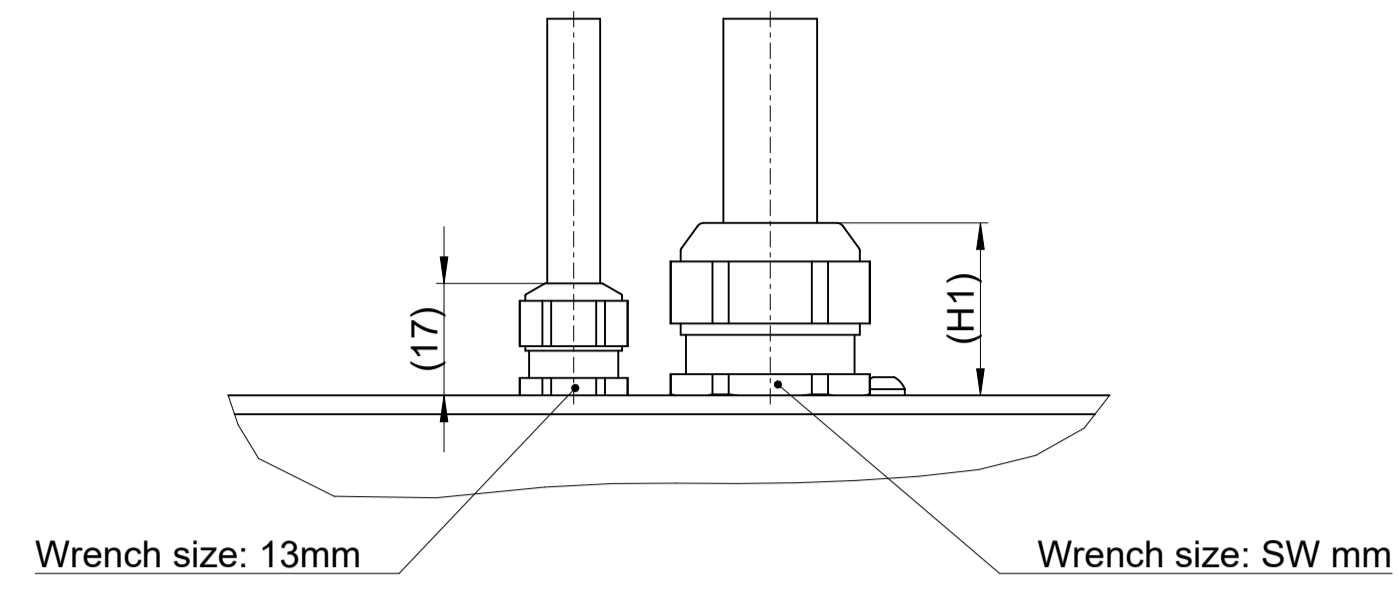
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Change No.:		Released:	30.07.2024
Original drawing	Scale	Format	TMC0140-###-####-O-AA#
Dimensions in mm	1:1	A1	TMC0140-###-####-O-AA#
Mating Dimensions / Coles d'encastrement		Dimensions without tolerance	± 0.2
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ETEL		ETEL S.A. 2112 Möllers SWITZERLAND	Version Revision Sheet Page 1442908-00 - A-01 2 of 2



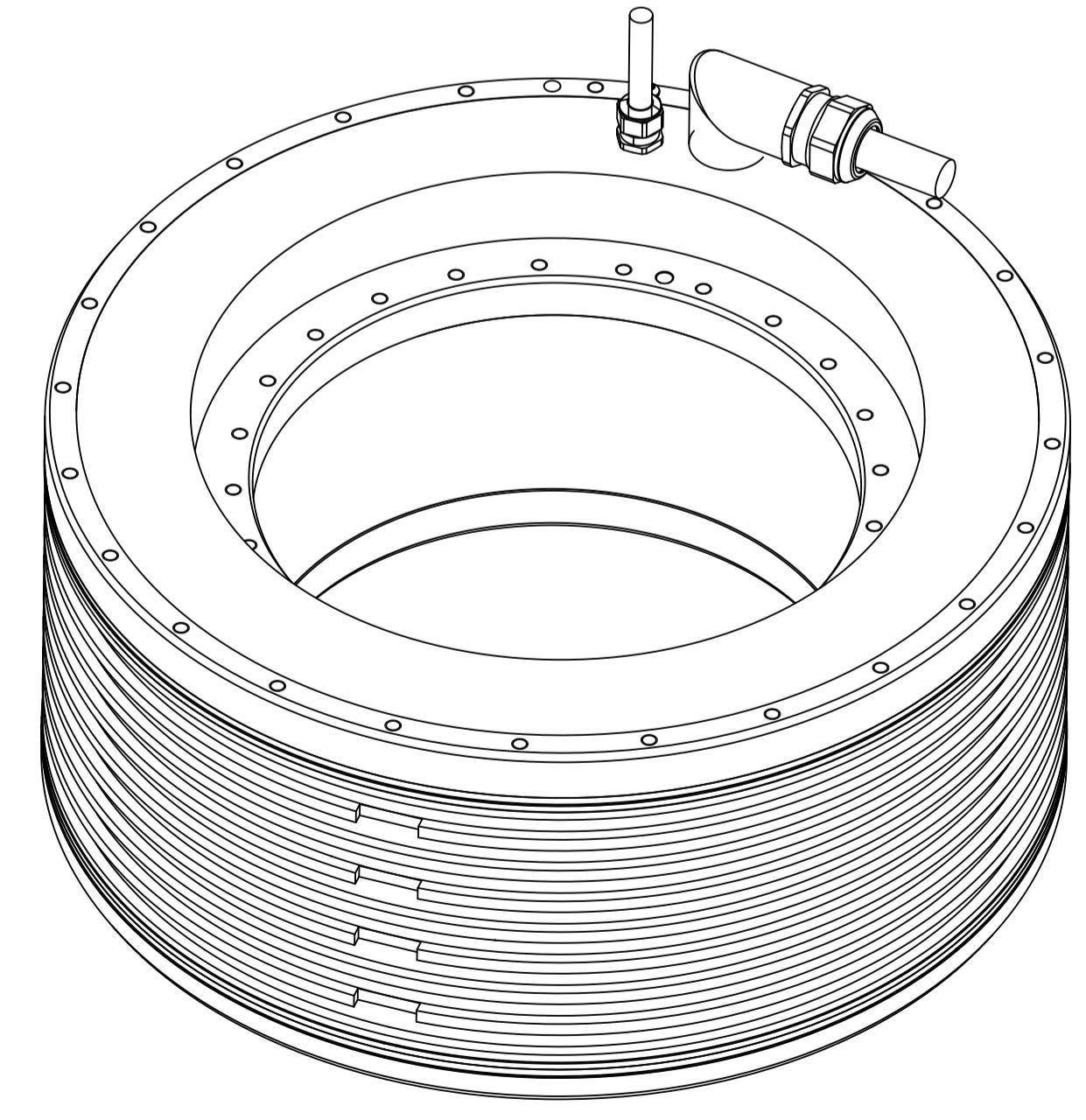
Designation	L1	L2	L3	L4	N1	N2	NMz1	NMz2	β1	β2
TMC0290-030	70	47	31	10	12	12	12	12	30°	30°
TMC0290-050	90	67	51	15	12	12	12	12	30°	30°
TMC0290-070	110	87	71	15	12	12	24	24	30°	15°
TMC0290-100	140	117	101	15	24	23	24	24	15°	15°
TMC0290-150	190	167	151	15	24	23	48	47	15°	7.5°
TMC0290-200	240	217	202	15	48	45	48	47	7.5°	7.5°

Type 1

Type 2



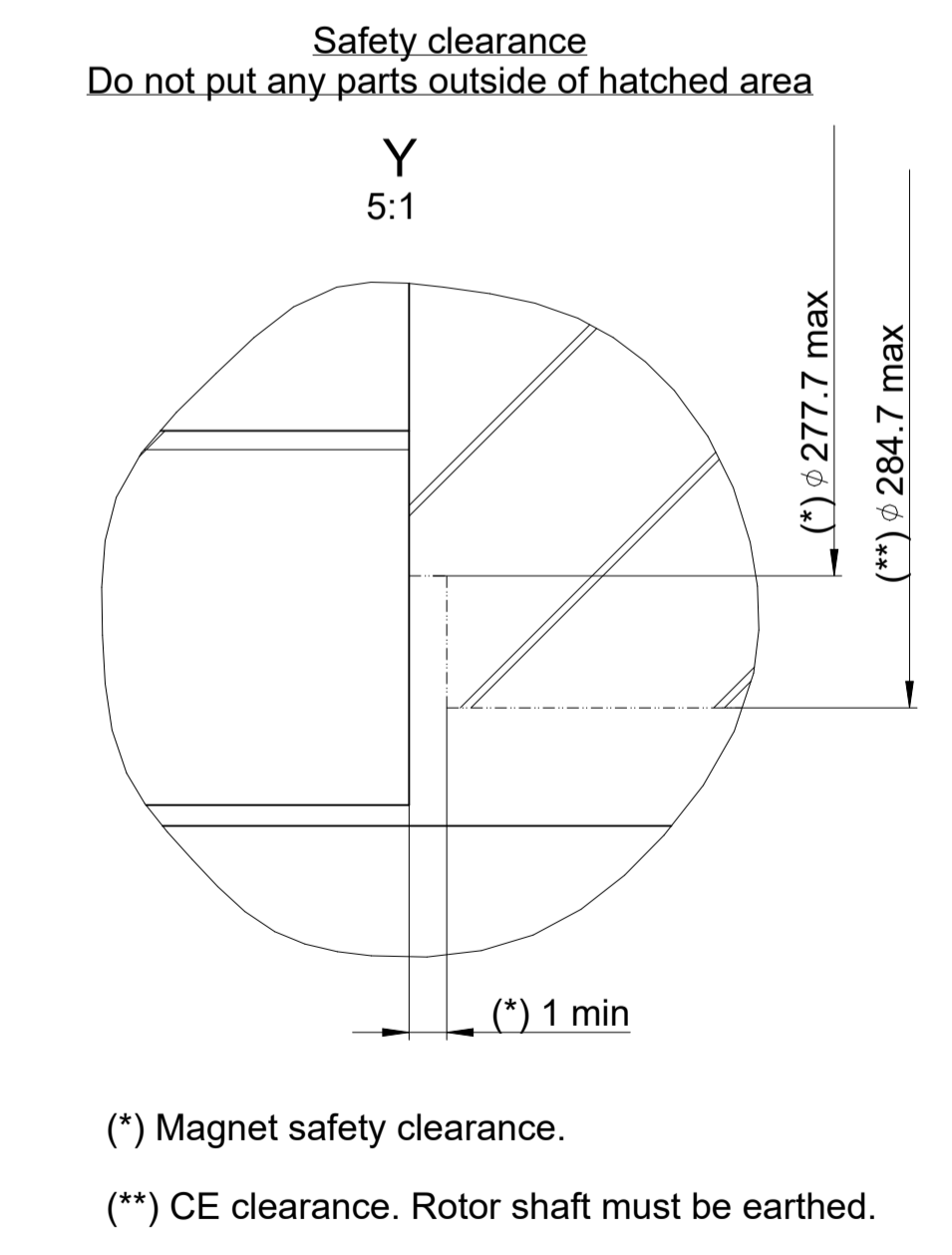
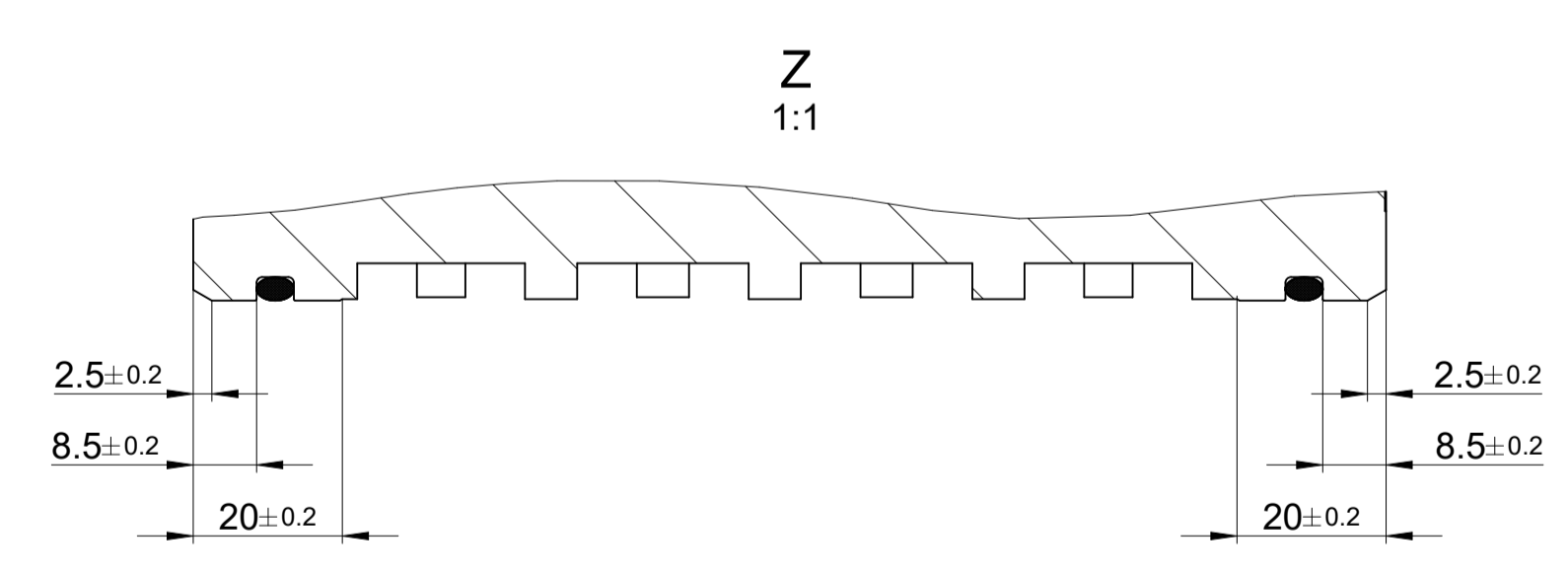
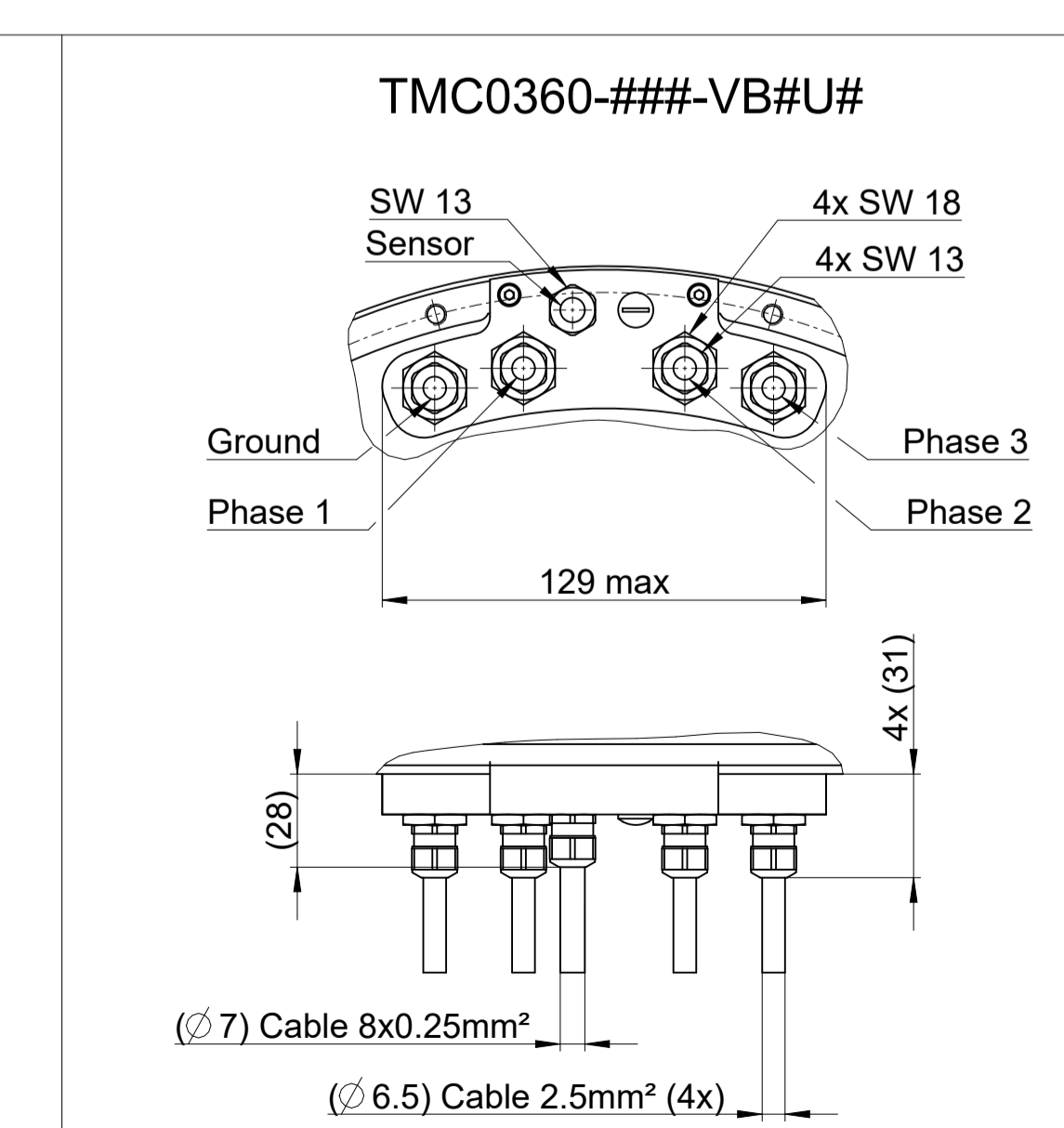
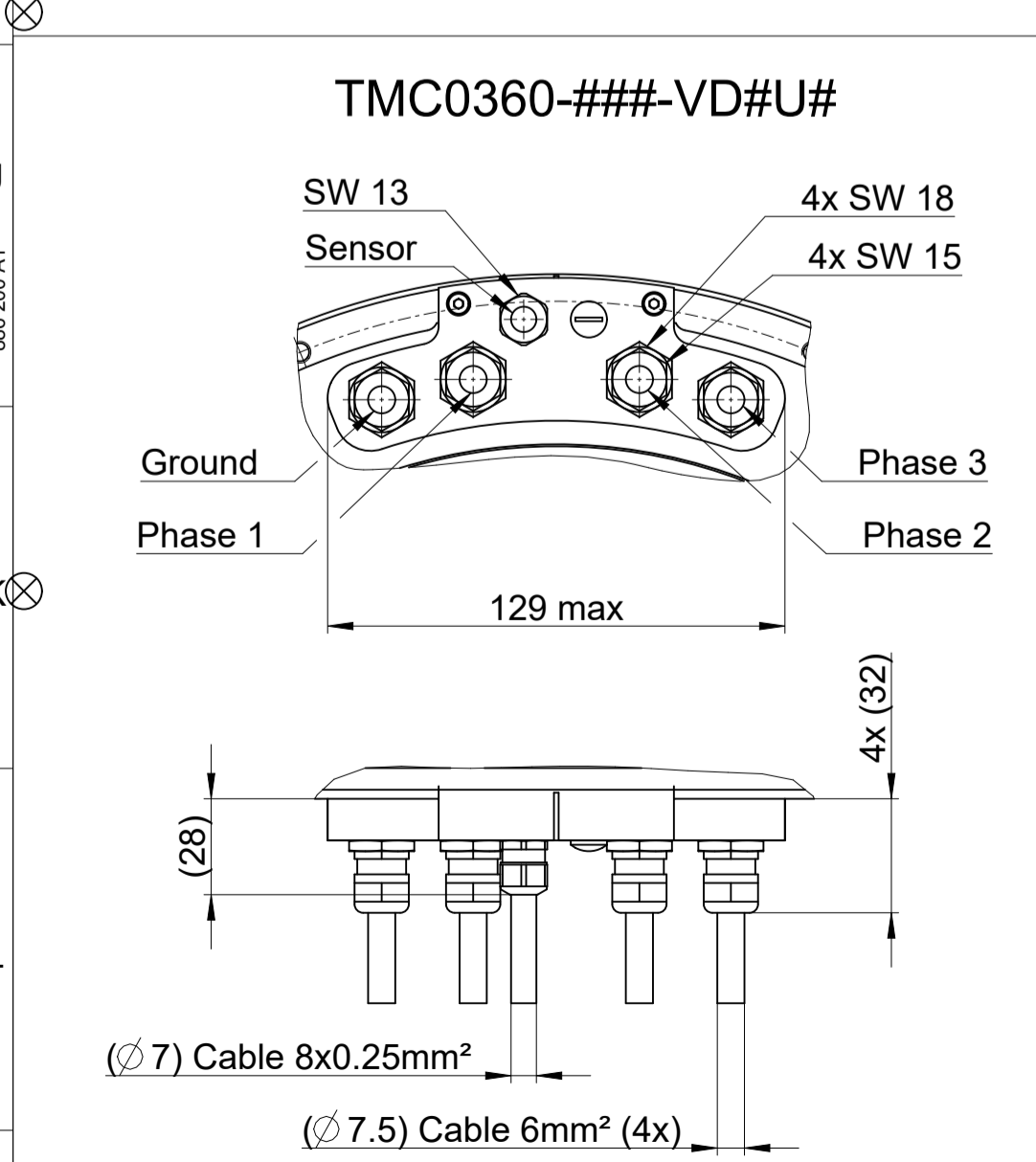
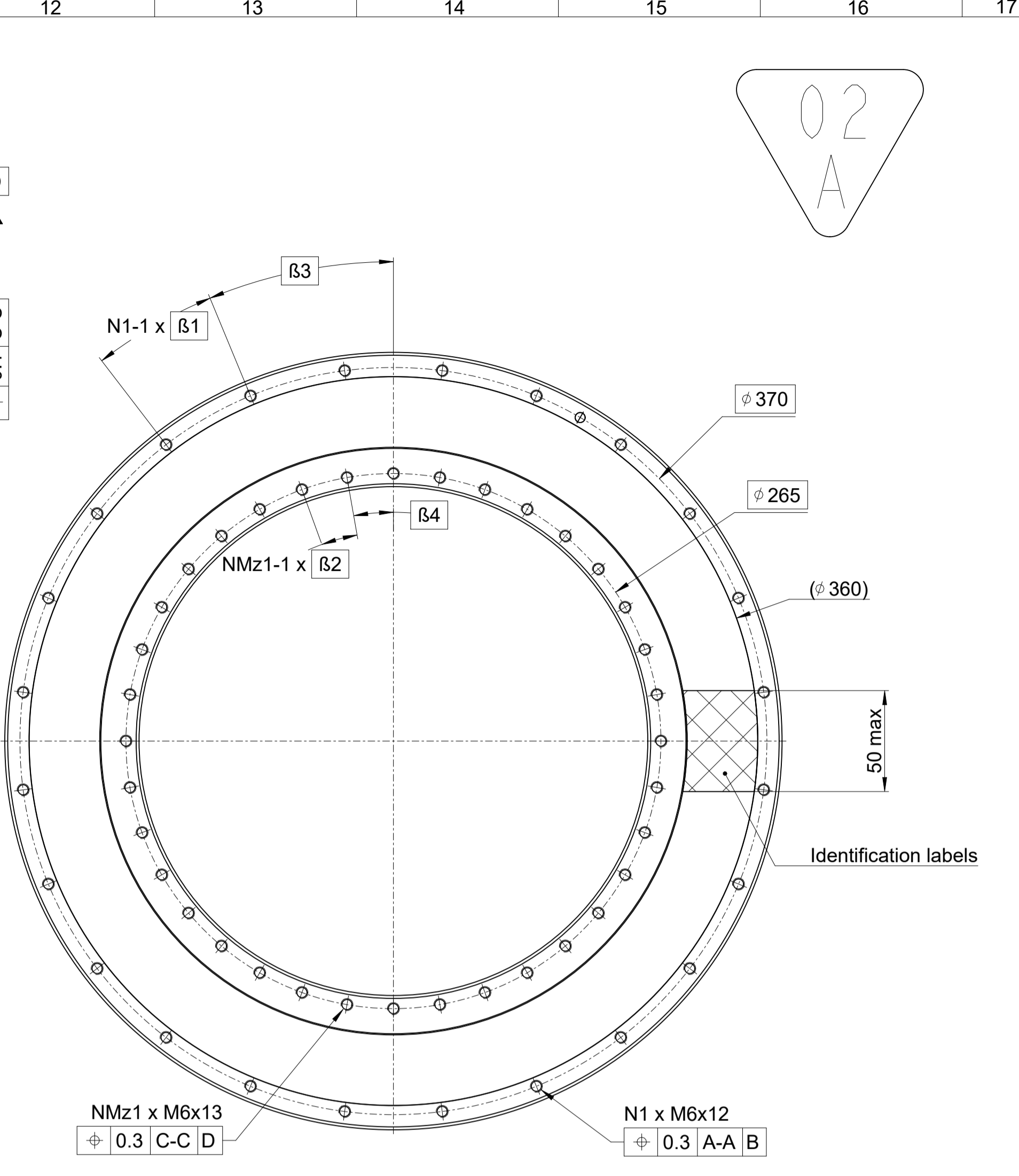
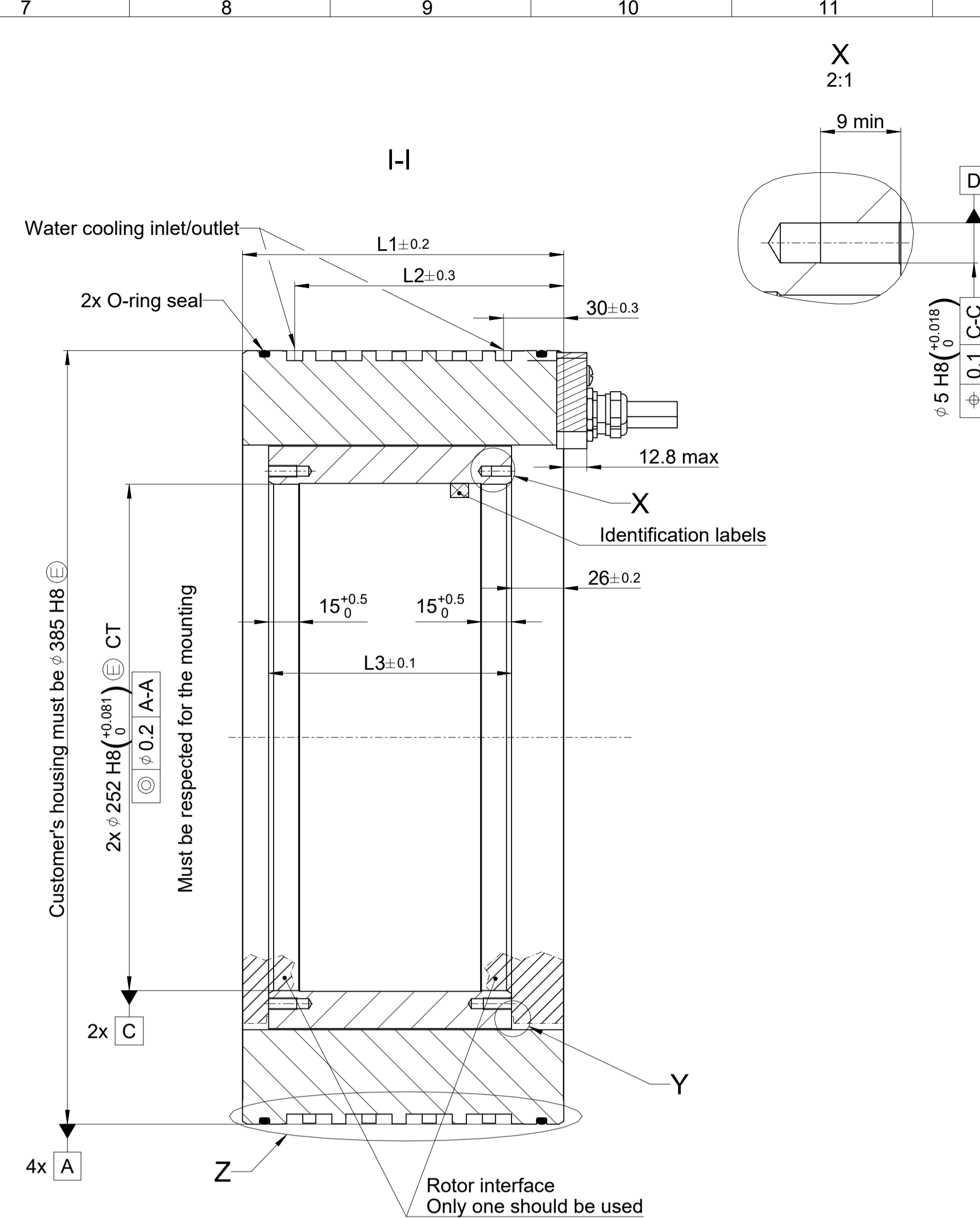
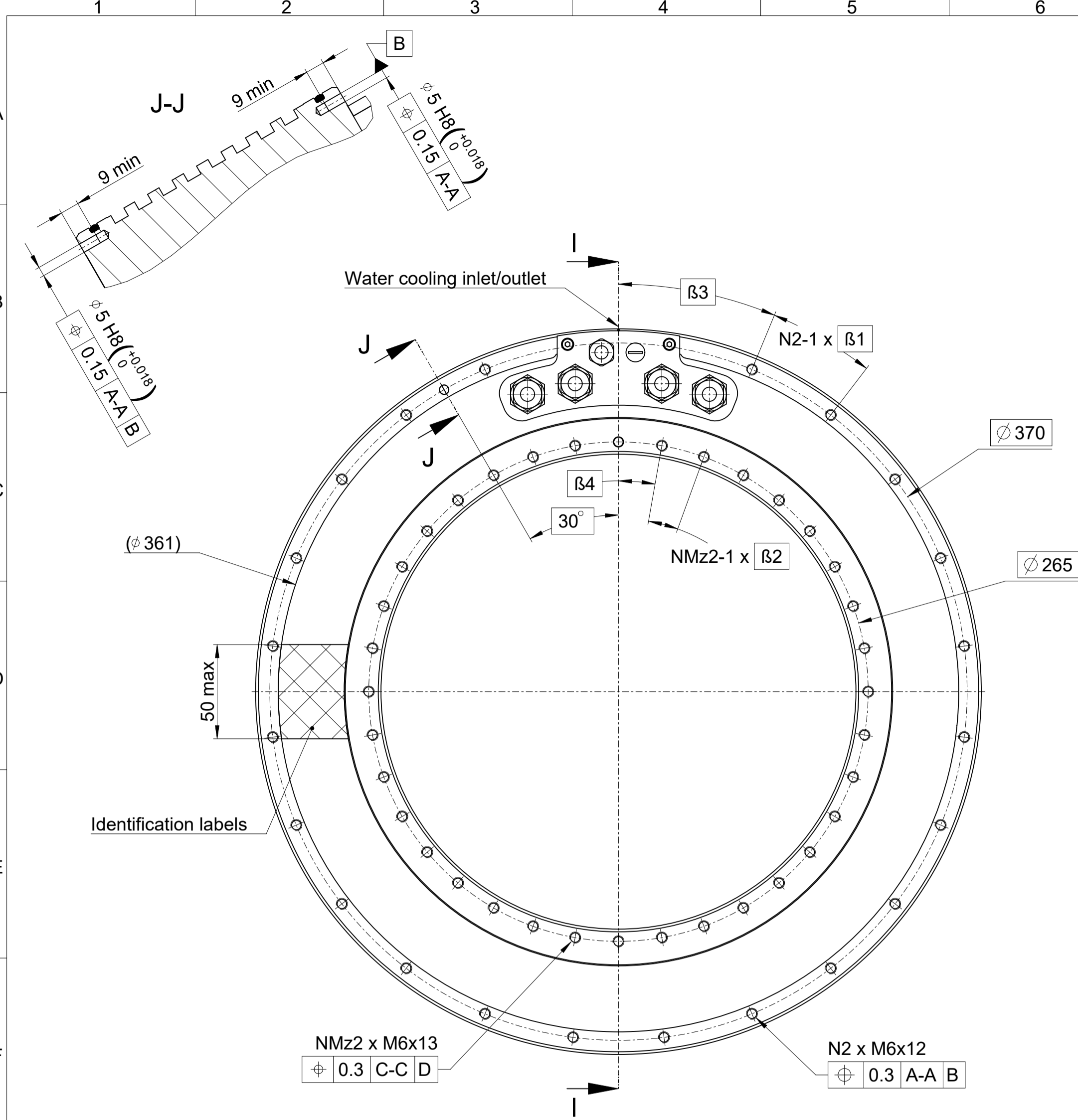
1:2



1:2

Designation	Output type	S=Wire section	L5	H1	D	SW
[-]	[-]	[mm ²]	[mm]	[mm]	[mm]	[mm]
TMC290-###-UA#S#	Type 1	1.5	-	26	9.6	24
TMC290-###-UA#E#	Type 2		51	34		
TMC290-###-SB#S#	Type 1	-	26			
TMC290-###-SB#E#	Type 2	51	34			
TMC290-###-UB#S#	Type 1	2.5	-	26	11.1	
TMC290-###-UB#E#	Type 2		51	34		
TMC290-###-UC#S#	Type 1	4	-	28	12.4	
TMC290-###-UC#E#	Type 2		53	34		

Text:		ID number:	C168370-25
Change No.:		Released:	17.05.2024
Original drawing	Scale	Format	TMC0290-###-####-O-AA#
Dimensions in mm	1:1	A1	TMC0290-###-####-O-AA#
Mating Dimensions / Cotes d'encroisement		Tolerances as per ISO 8015 : 2011 Tolérances selon ISO 8015 : 2011	
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ETEL ETEL S.A. 2112 Möllers SWITZERLAND		Version Revision Sheet Page	1437386-00-B-01 Document number



Designation	L1	L2	L3	N1	N2	NMz1	NMz2	$\beta 1$	$\beta 2$	$\beta 3$	$\beta 4$
TMC0360-030	90	64	51	12	12	12	12	30°	30°	15°	15°
TMC0360-050	110	84	71	24	22	24	23	15°	15°	22.5°	15°
TMC0360-070	130	104	91	24	22	24	23	15°	15°	22.5°	15°
TMC0360-100	160	134	121	24	22	36	35	15°	10°	22.5°	10°
TMC0360-150	210	184	171	36	34	48	47	10°	7.5°	15°	7.5°
TMC0360-200	260	234	222	36	34	48	47	10°	7.5°	15°	7.5°

Text: TMC0360-###-####-O#-AA#
TMC0360-###-####-O#-AA#
Mating Dimensions / Cotes d'encastrement

Original drawing Scale: 1:2 Format: A1

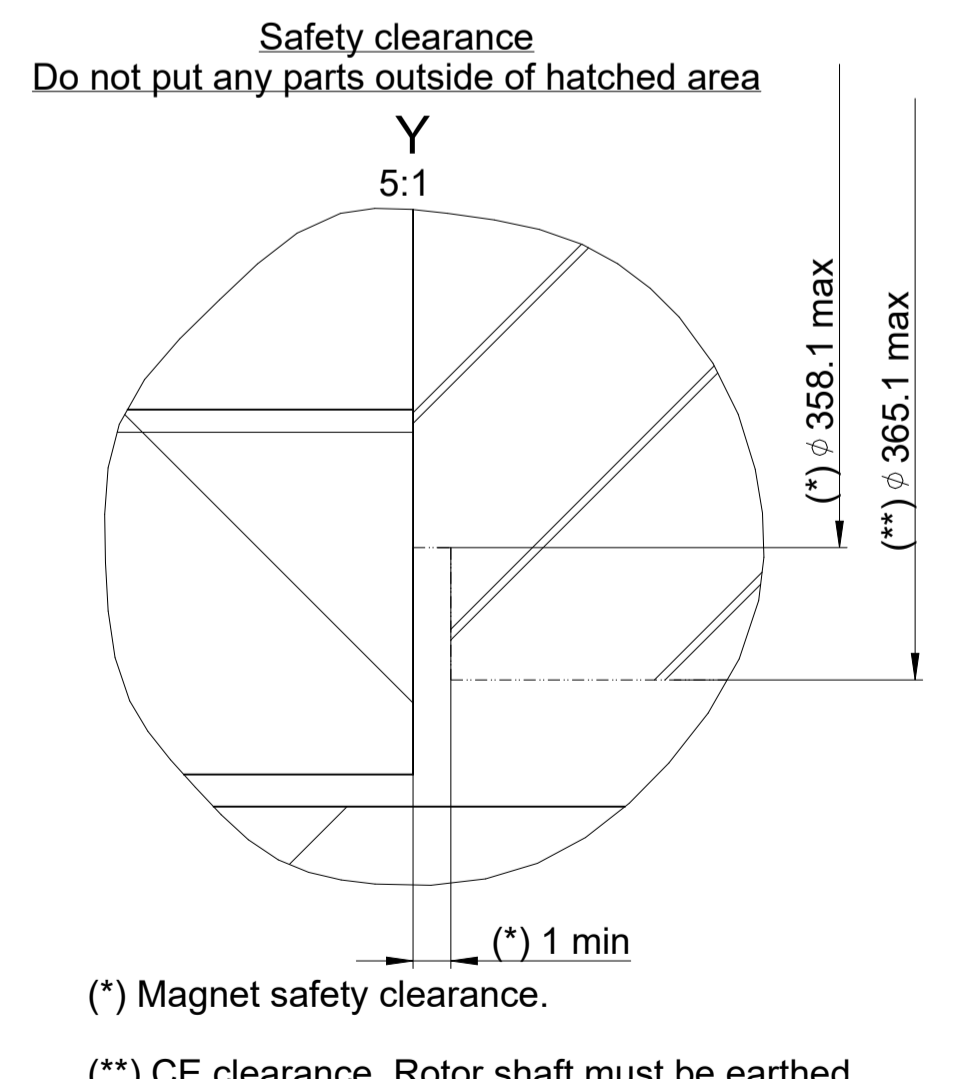
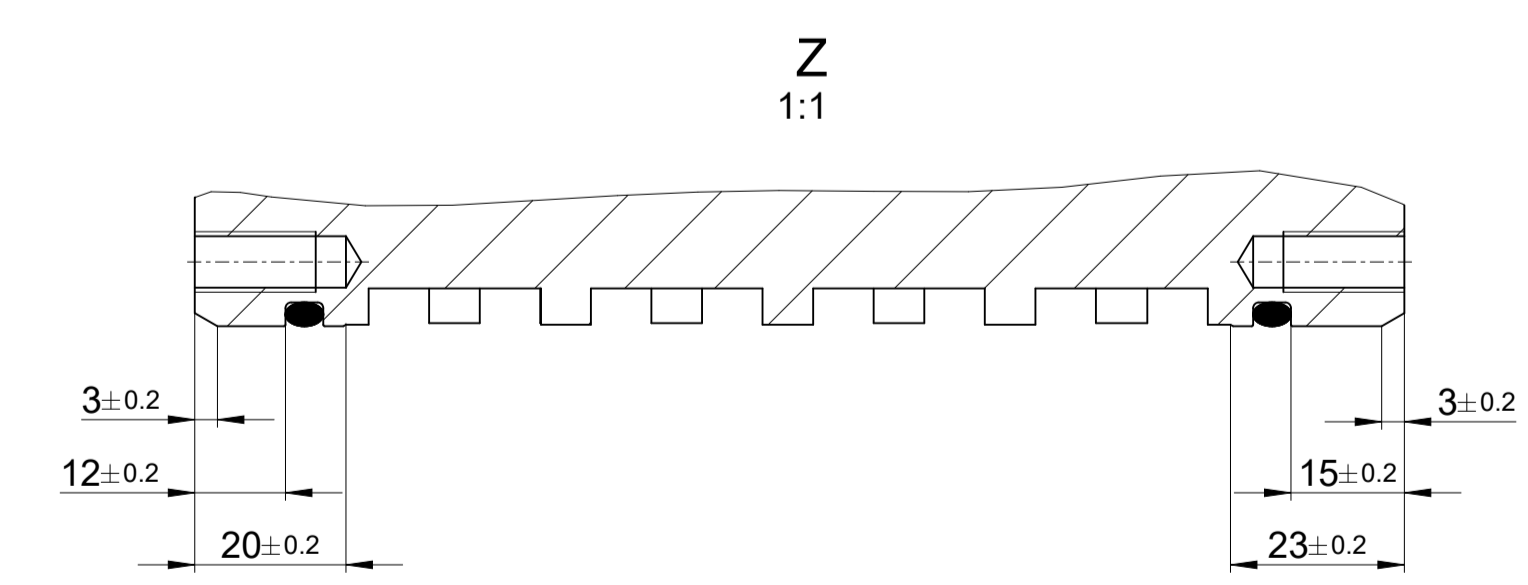
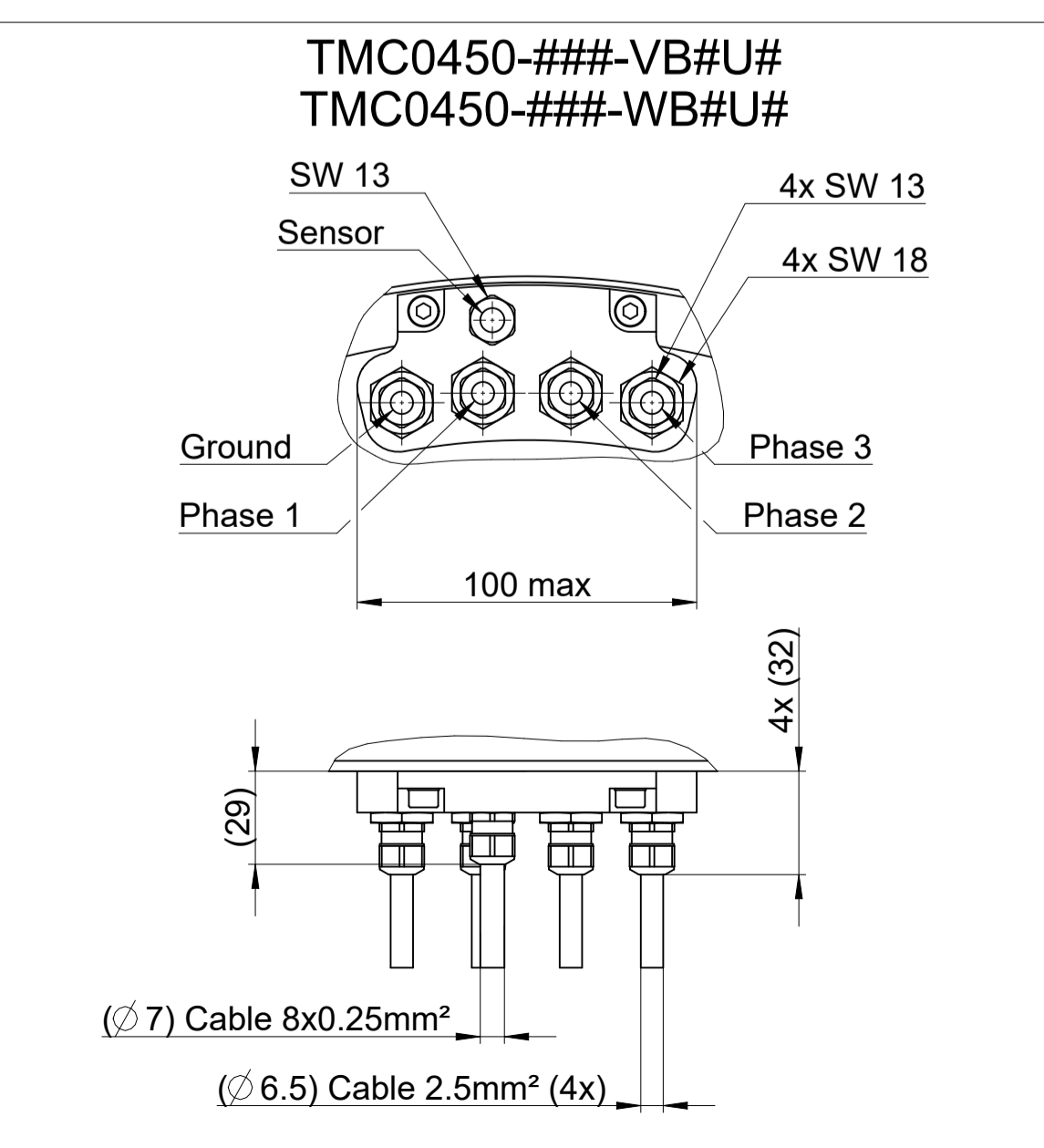
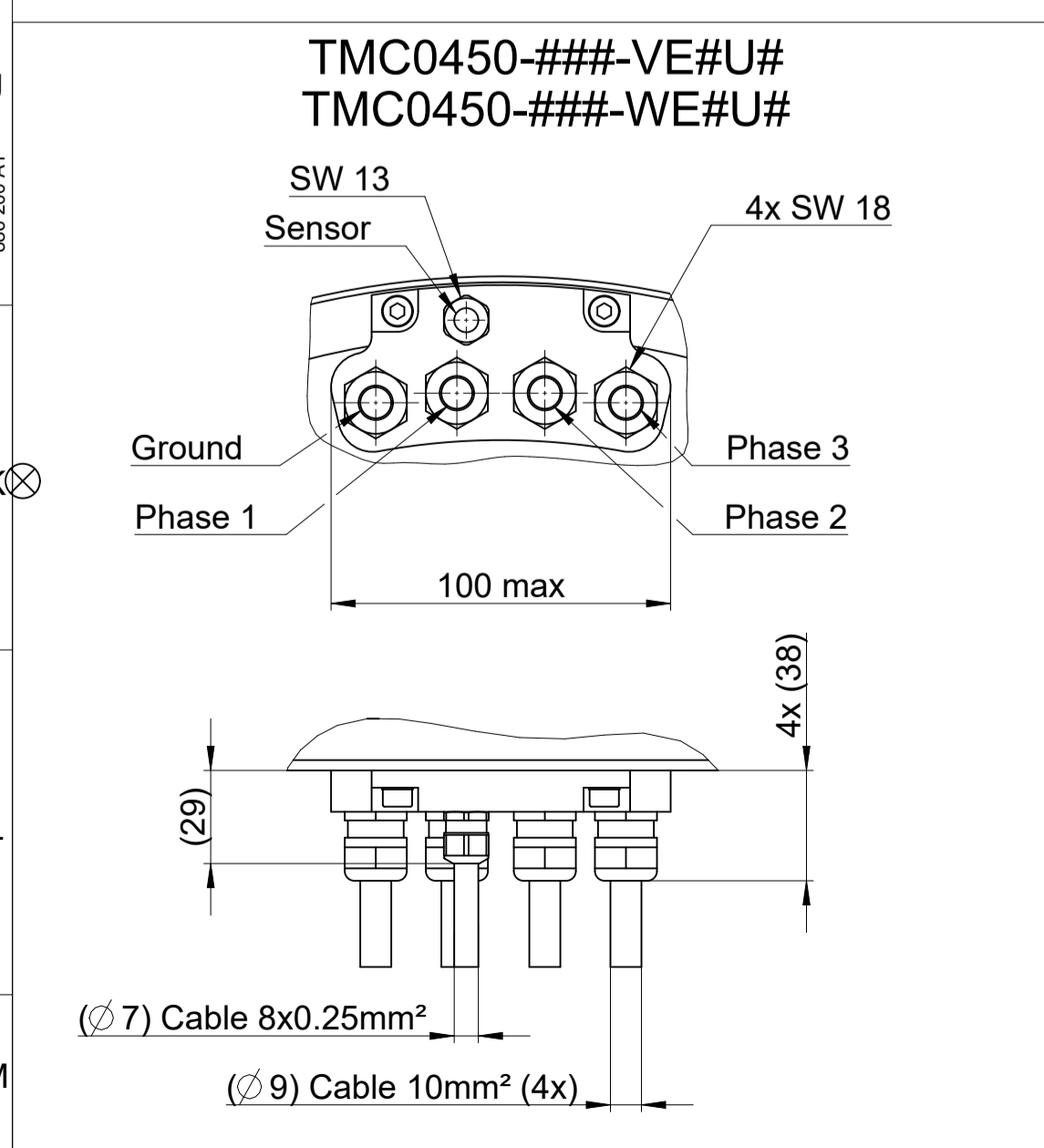
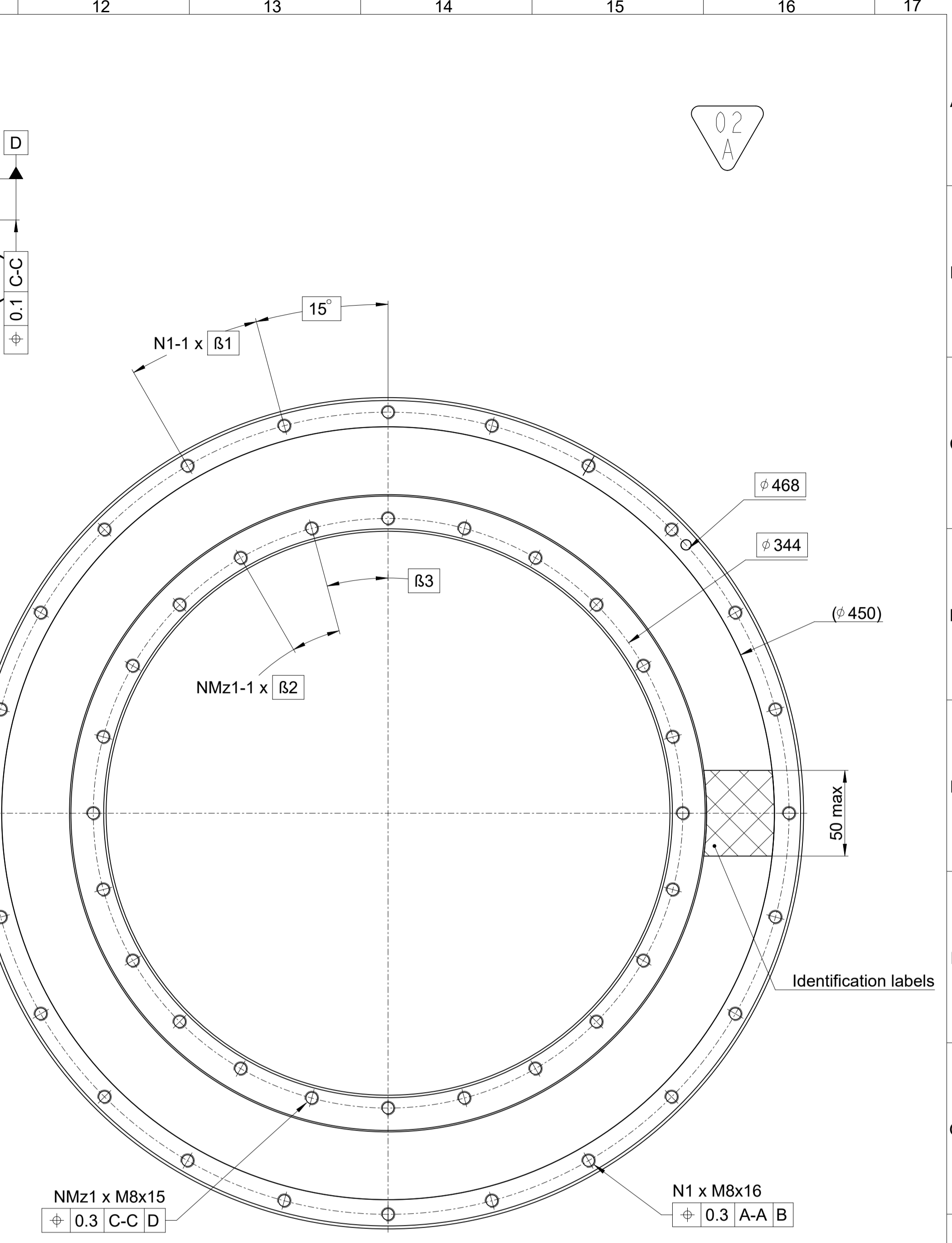
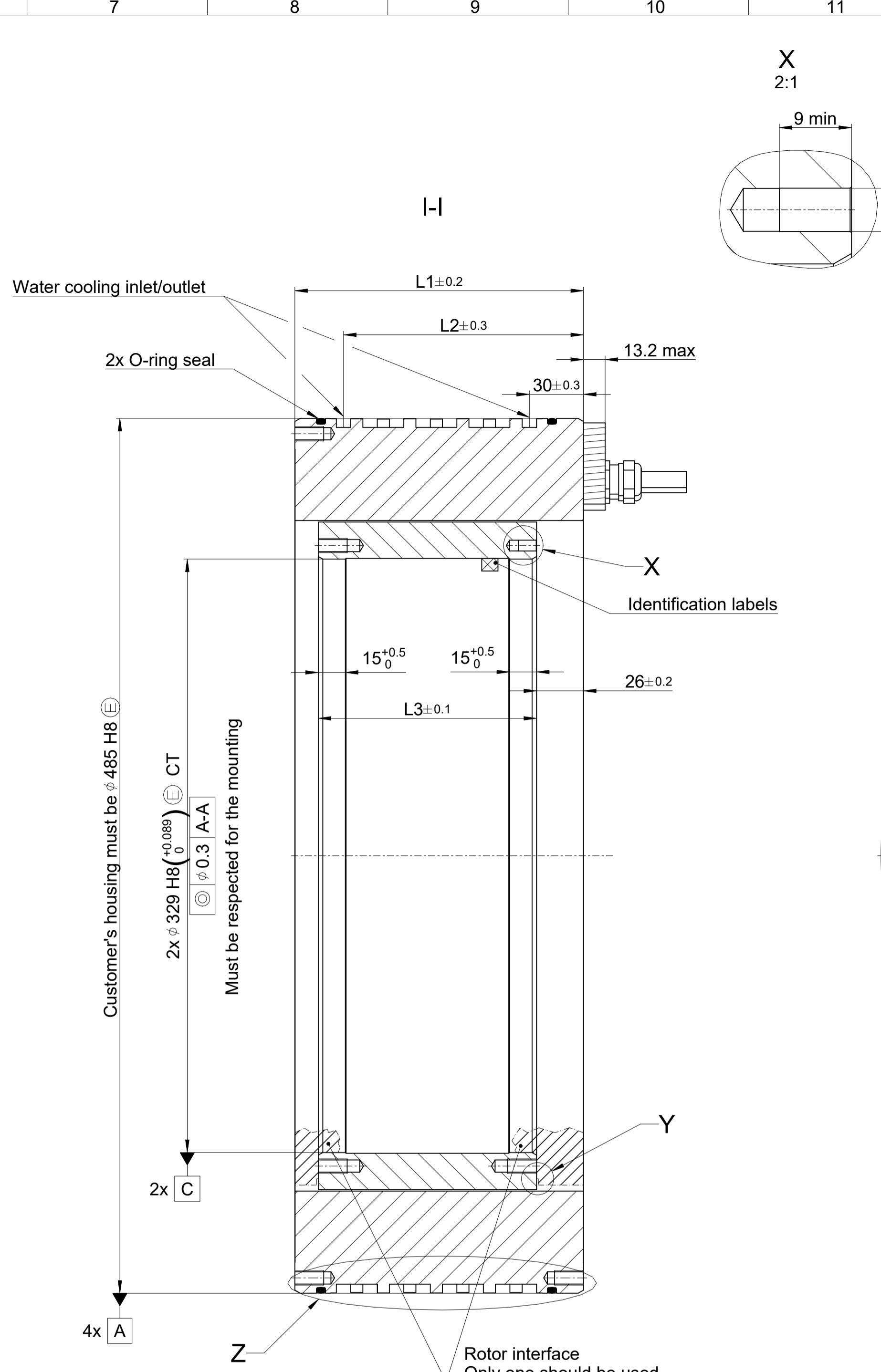
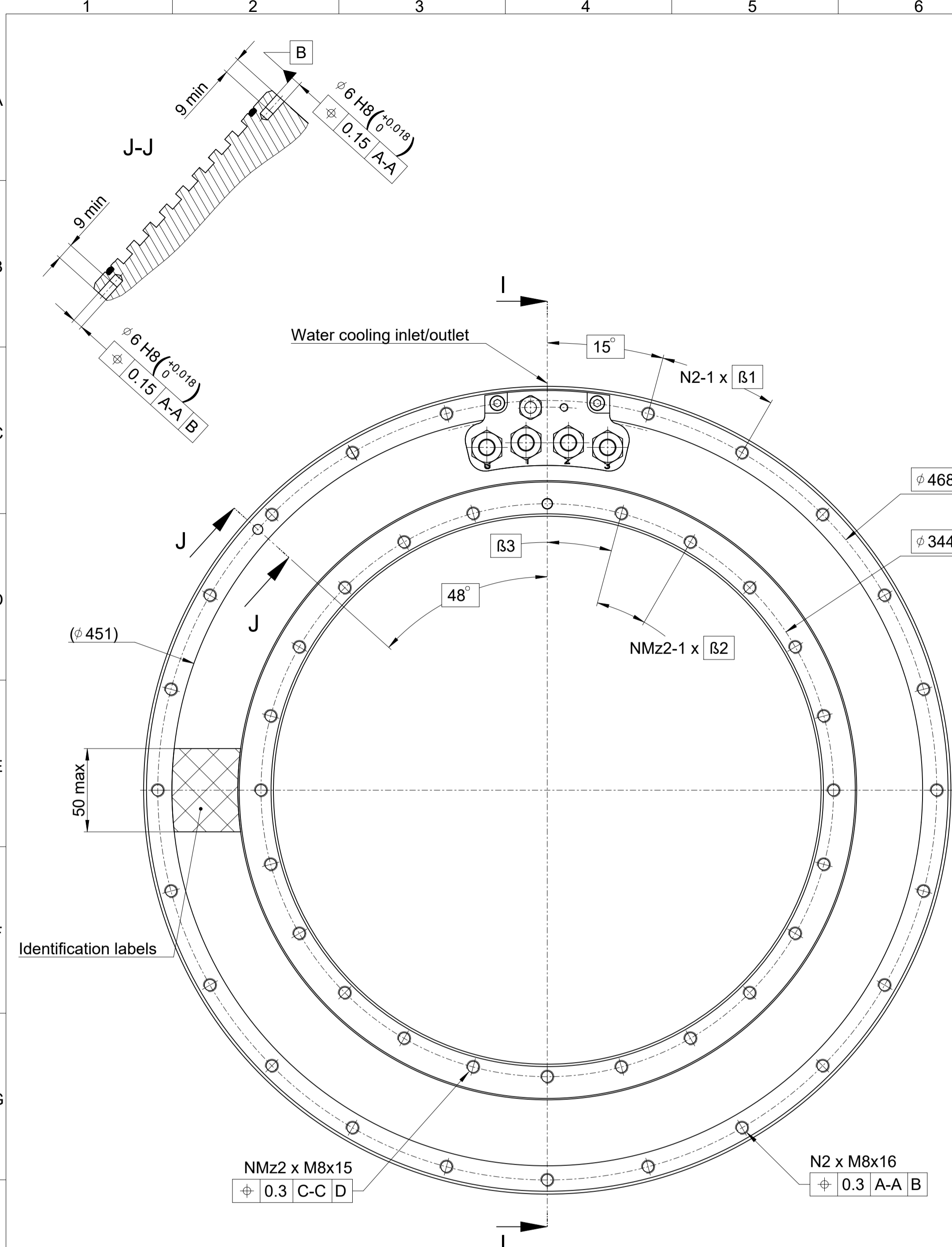
Dimensions in mm

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ID number: C170999-05
Change No.: 28.03.2024
Released: 28.03.2024
Tolerances as per ISO 8015 : 2011
Tolerances selon ISO 8015 : 2011
Dimensions without tolerance ± 0.2
Dimensions sans tolérances ± 0.2

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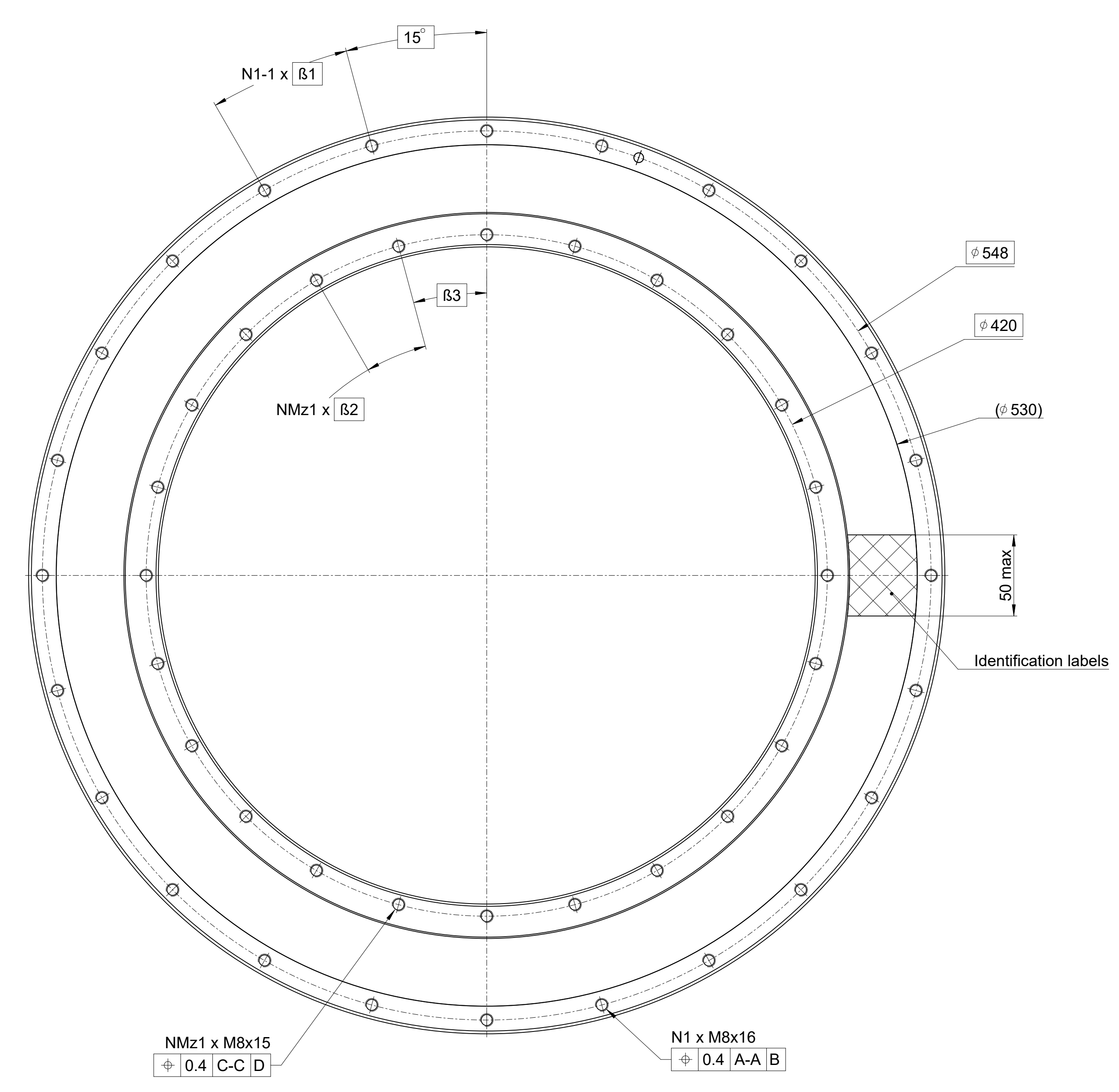
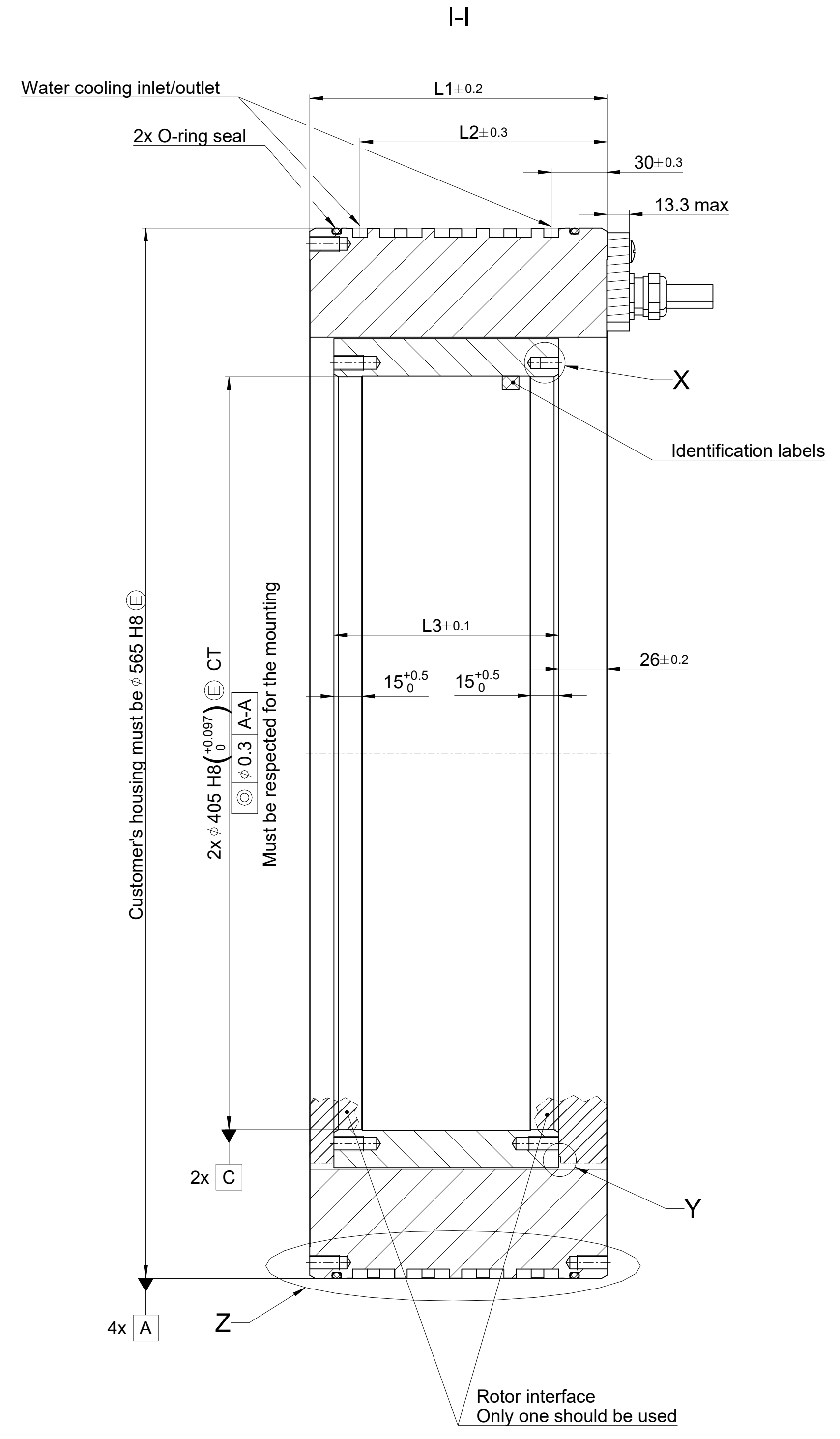
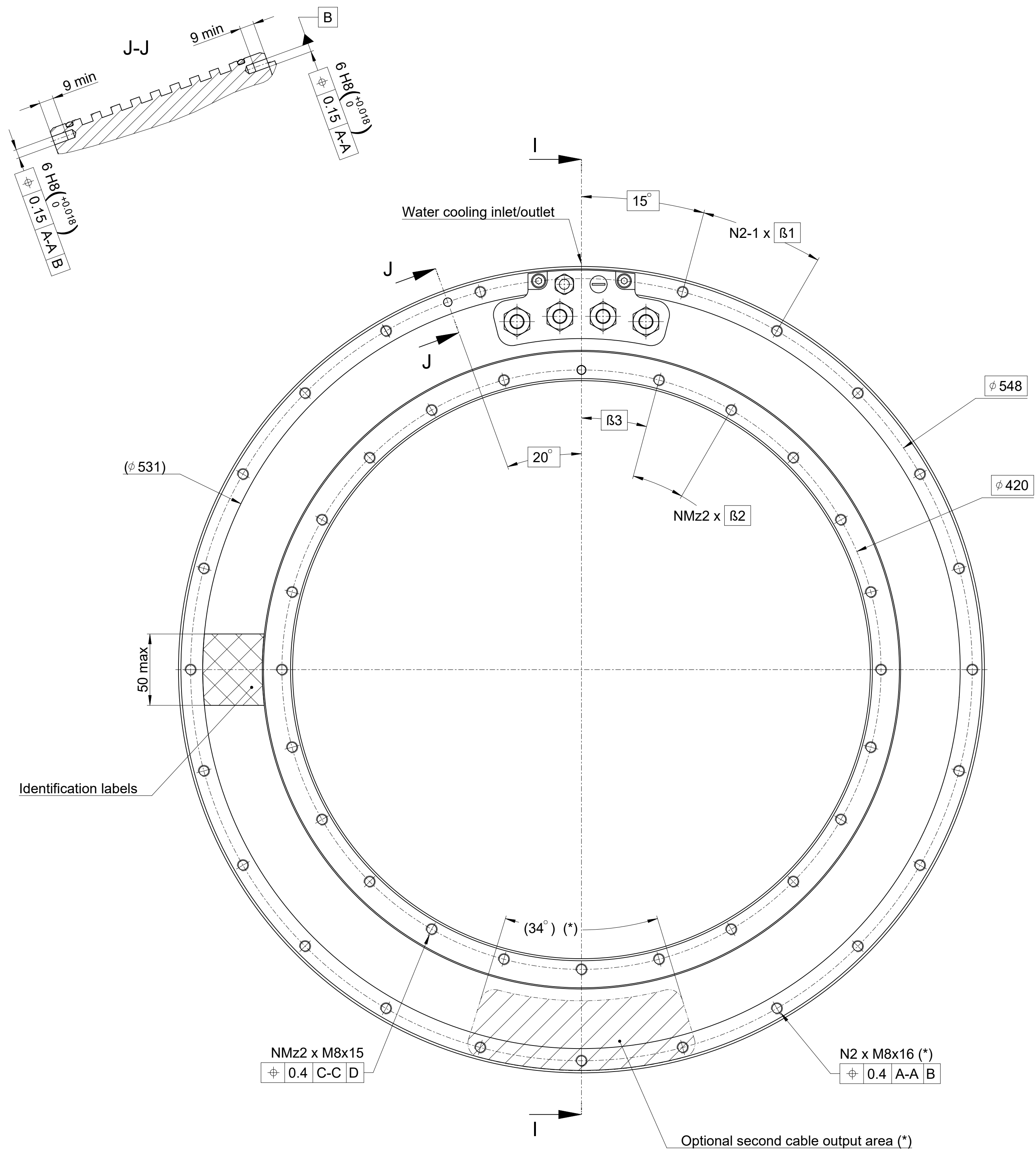


Designation	L1	L2	L3	N1	N2	NMz1	NMz2	β1	β2	β3
TMC0450-030	90	63	51	12	12	12	12	30°	30°	15°
TMC0450-050	110	83	71	12	12	12	12	30°	30°	15°
TMC0450-070	130	103	91	12	12	24	23	30°	15°	15°
TMC0450-100	160	133	121	24	23	24	23	15°	15°	15°
TMC0450-150	210	183	171	24	23	36	35	15°	10°	10°
TMC0450-200	260	233	222	36	34	36	35	10°	10°	10°

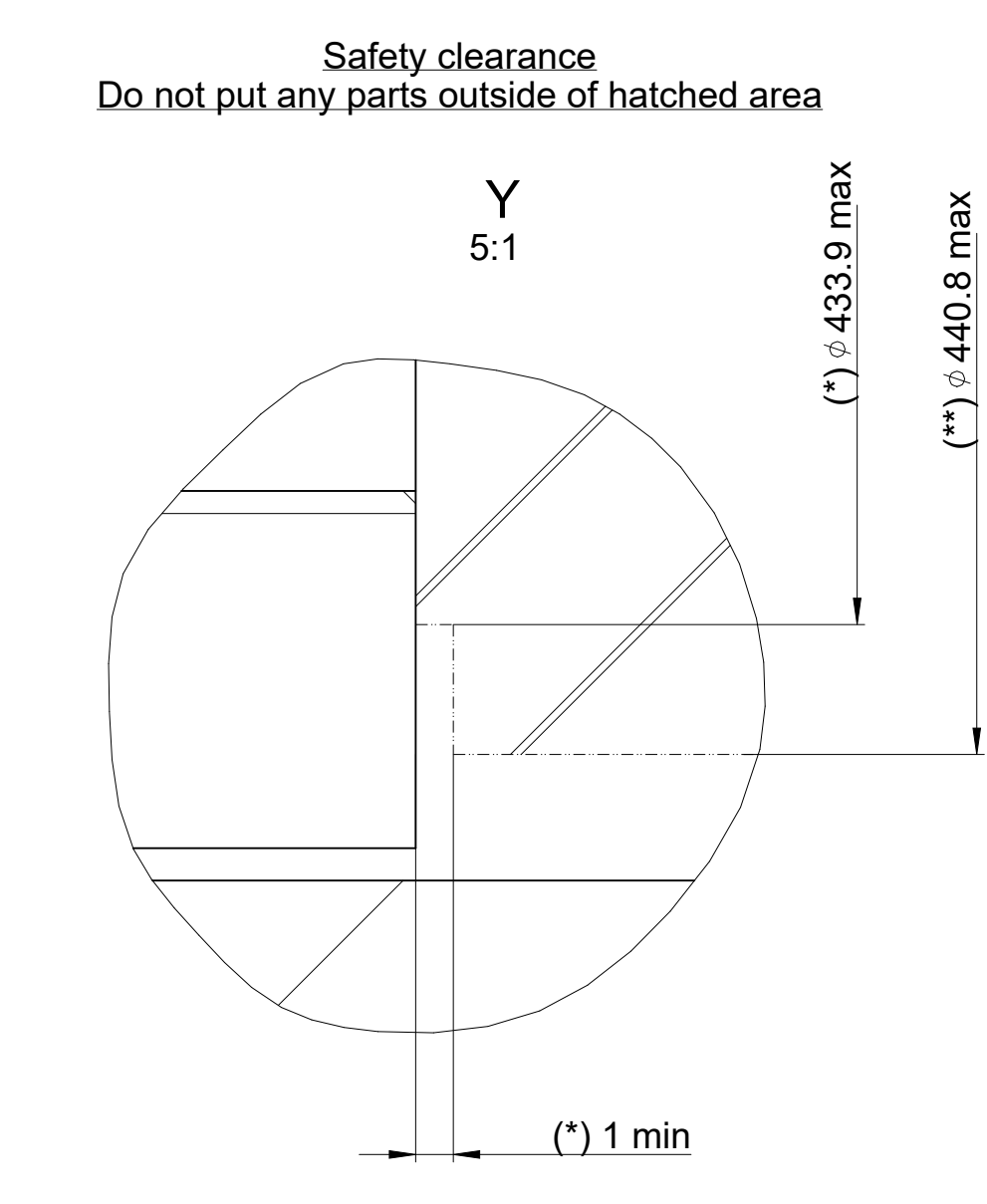
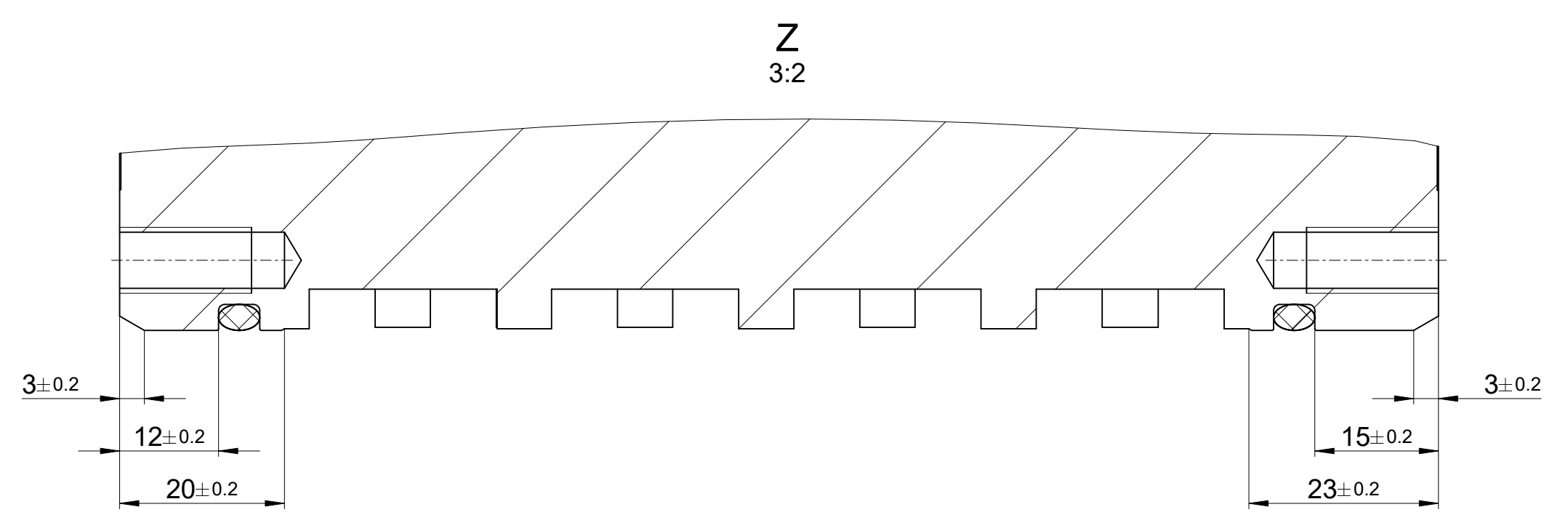
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1395945-02-A-01

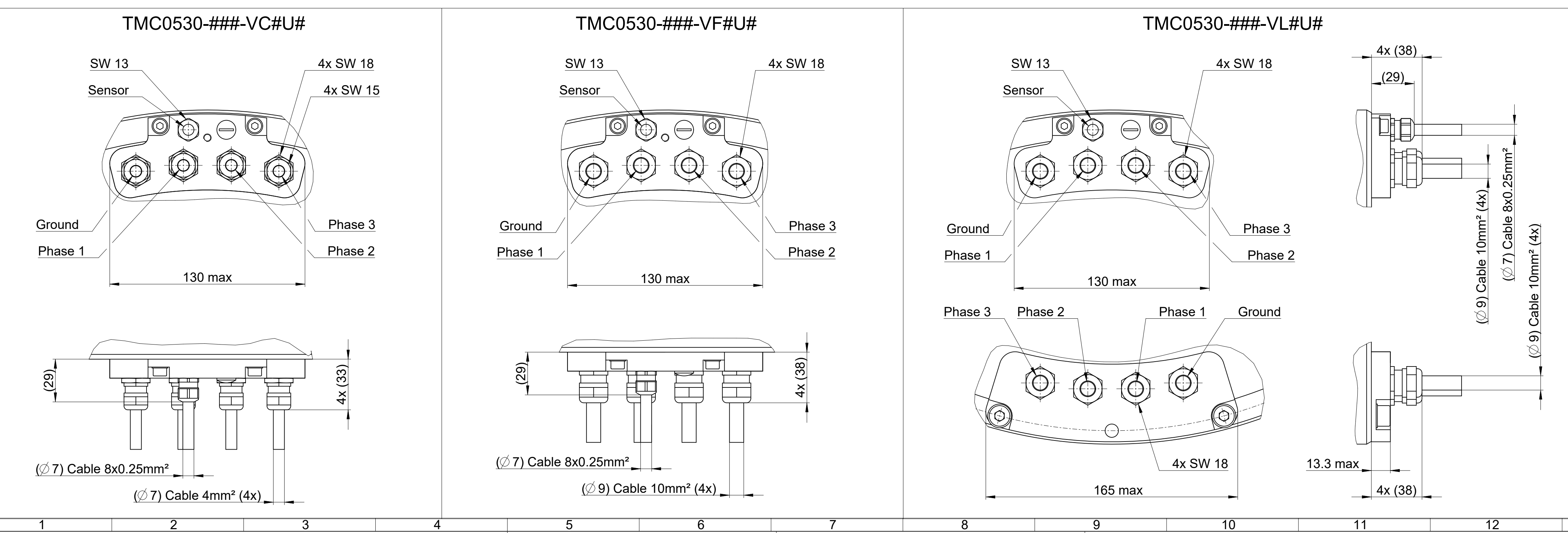
1 of 1



! (*) For motors with 2 cable outputs, some of the stator threaded holes are covered by the second cable output and therefore these threaded holes cannot be used.



(*) Magnet safety clearance.
(**) CE clearance. Rotor shaft must be earthed.



Designation	L1	L2	L3	N1	N2 (*)	NMz1	NMz2	$\beta 1$	$\beta 2$	$\beta 3$
TMC0530-030	90	63	51	12	12	12	12	30°	30°	15°
TMC0530-050	110	83	71	12	12	12	12	30°	30°	15°
TMC0530-070	130	103	91	24	23	24	23	15°	15°	15°
TMC0530-100	160	133	121	24	23	24	23	15°	15°	15°
TMC0530-150	210	183	171	24	23	36	35	15°	10°	10°
TMC0530-200	260	233	222	36	34	36	35	10°	10°	10°

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1395989-02-A-01

Document number

1395989-02-A-01