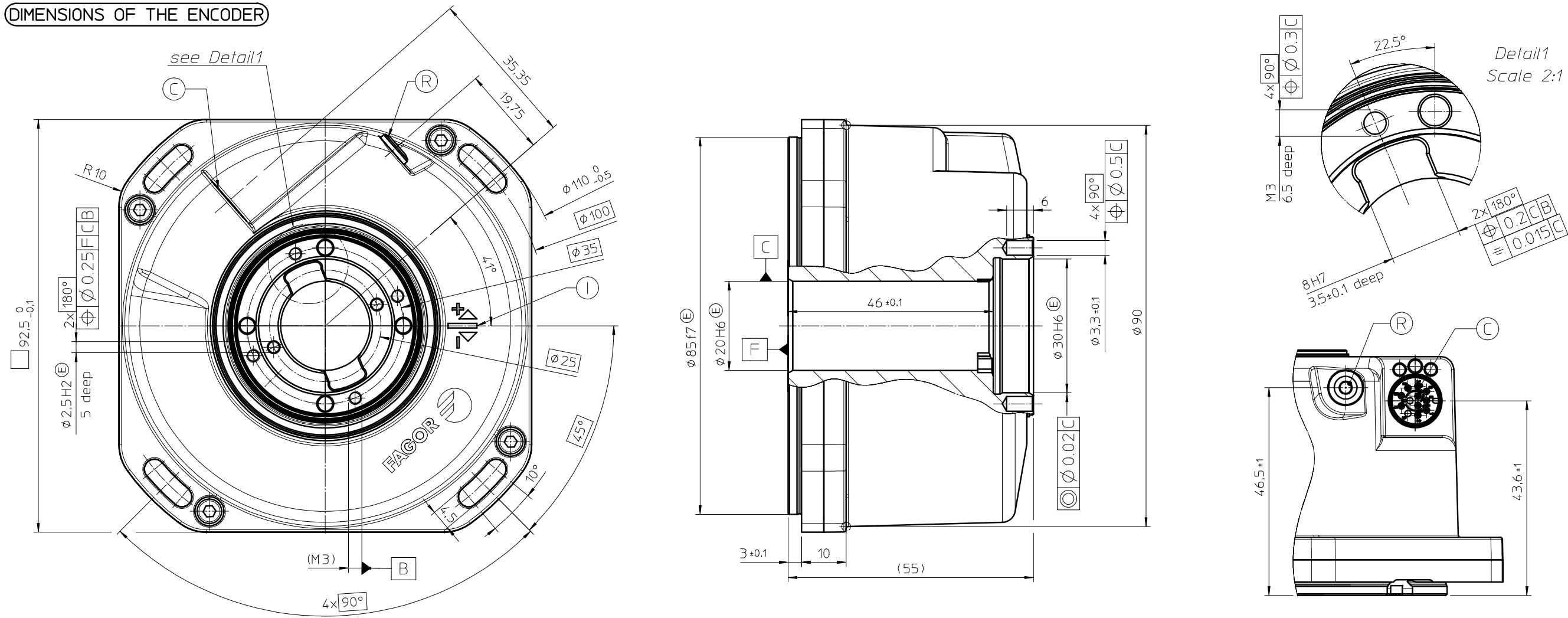
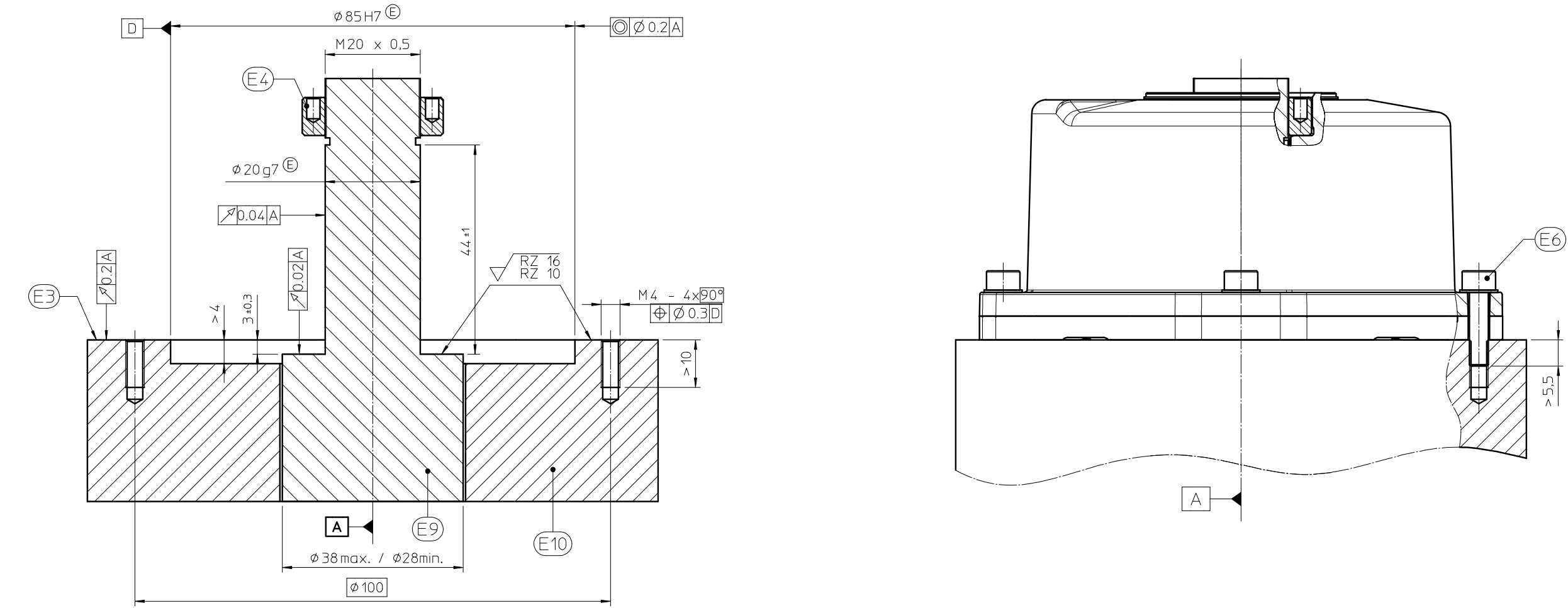


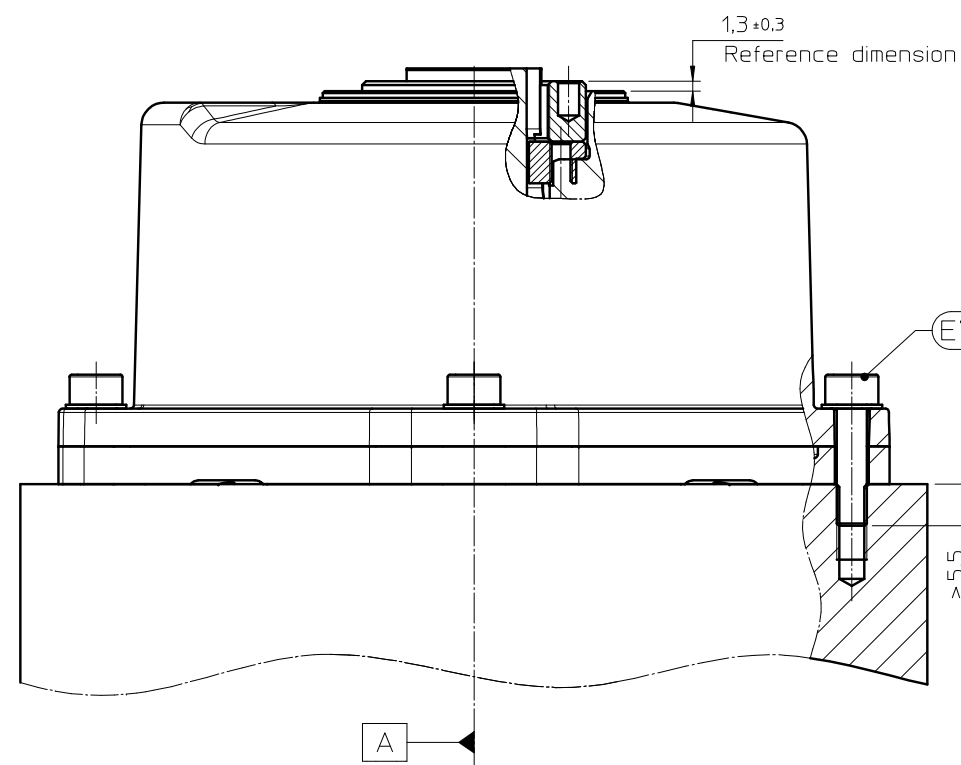
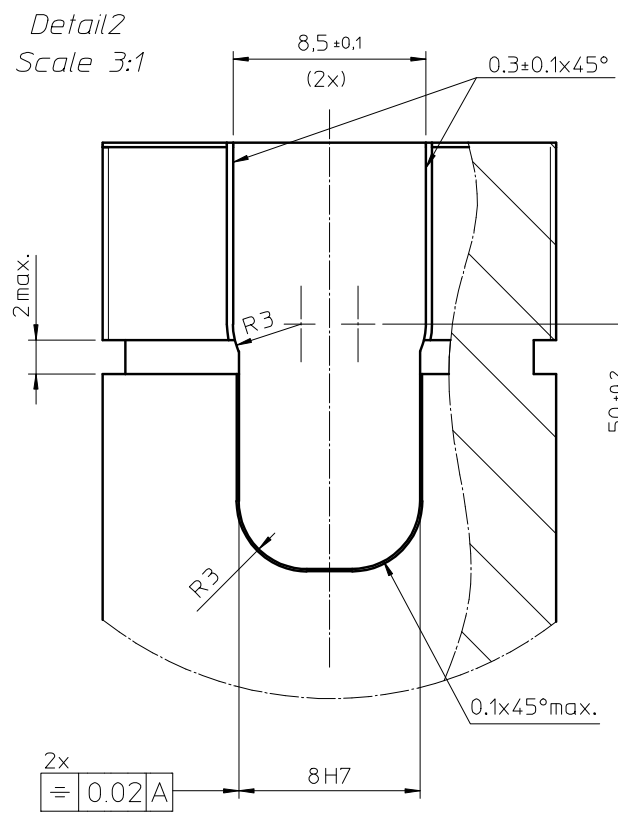
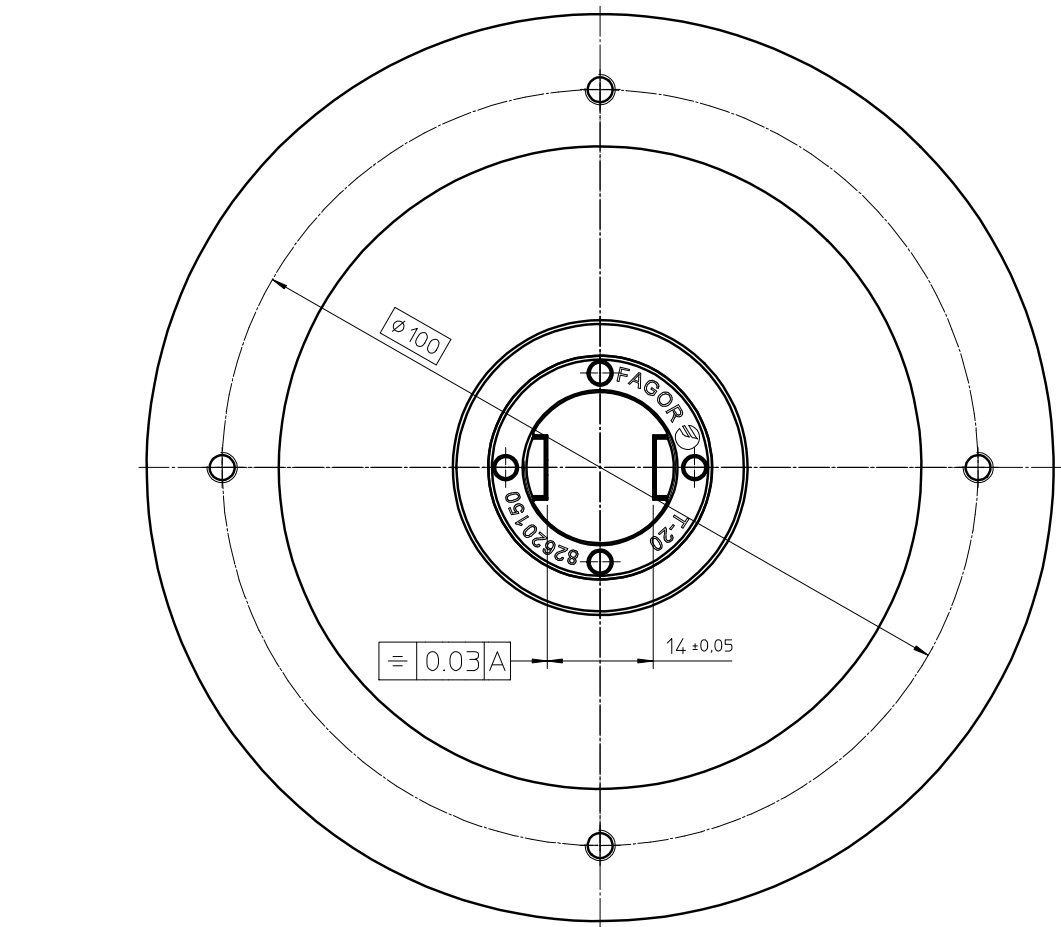
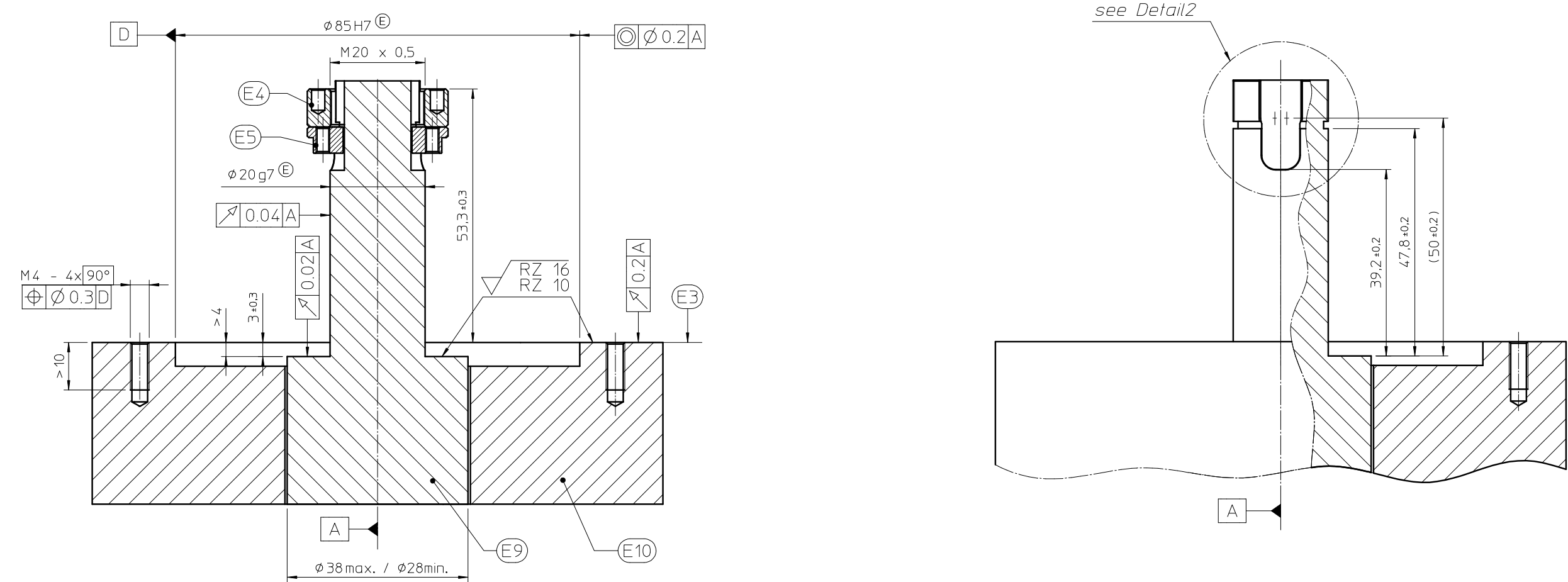
DIMENSIONS OF THE ENCODER



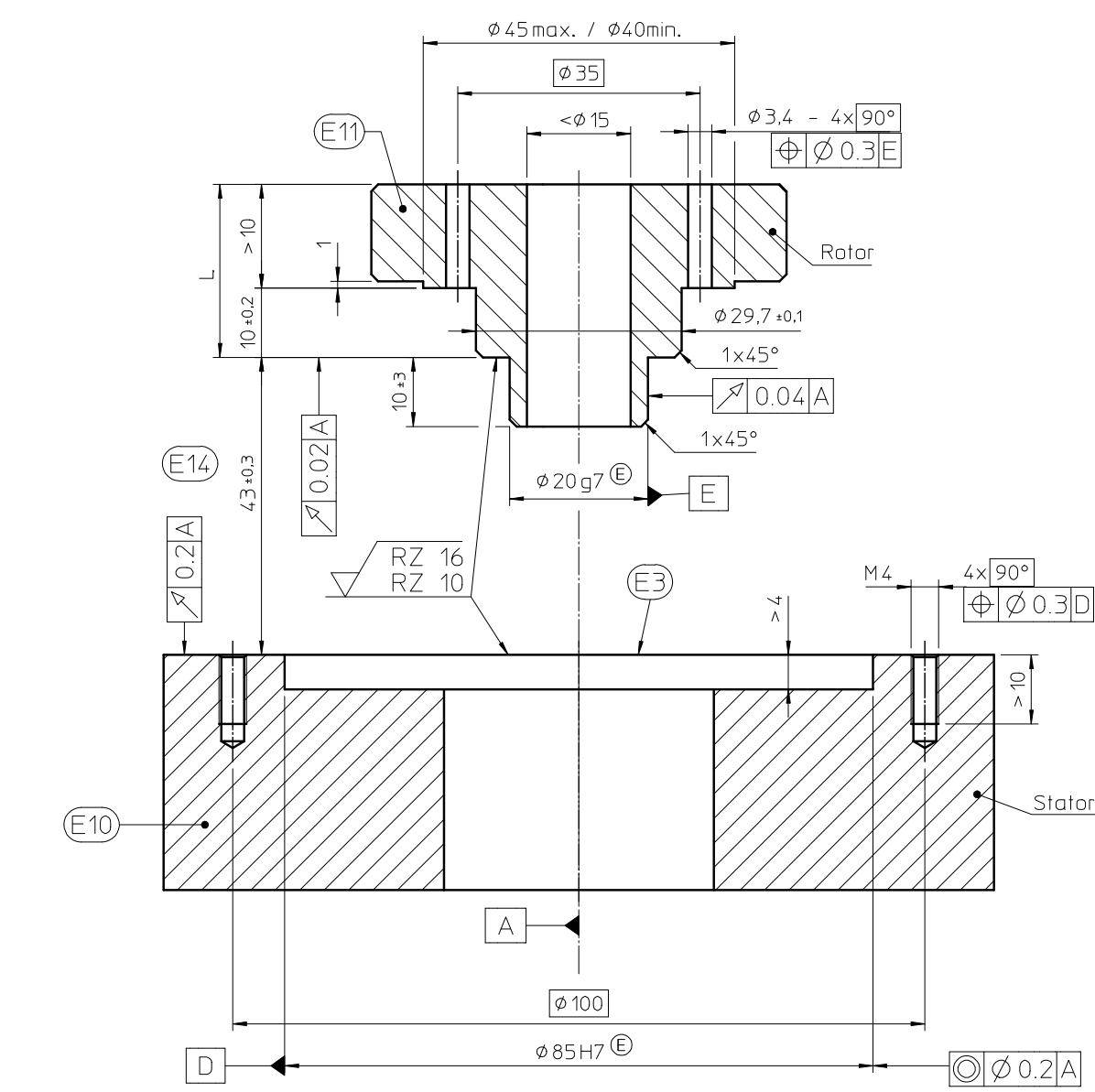
Mounting Option: Shaft Coupling
WITHOUT MECHANICAL FAULT EXCLUSION



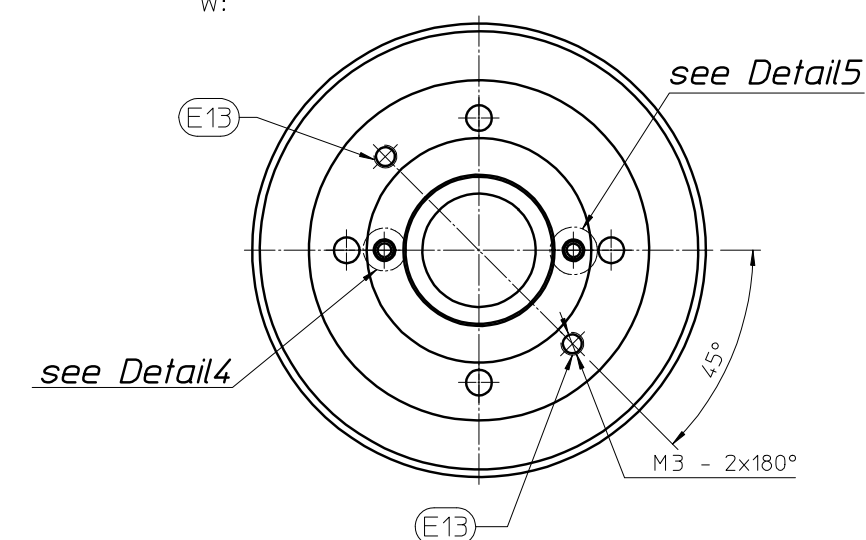
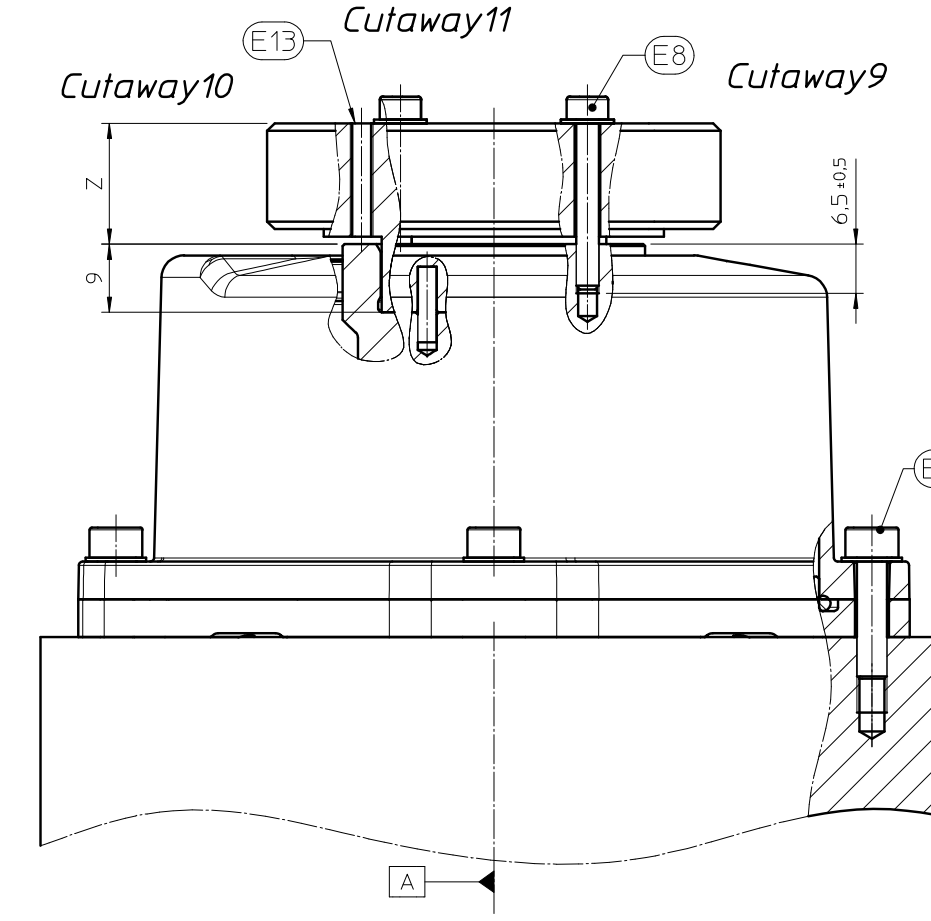
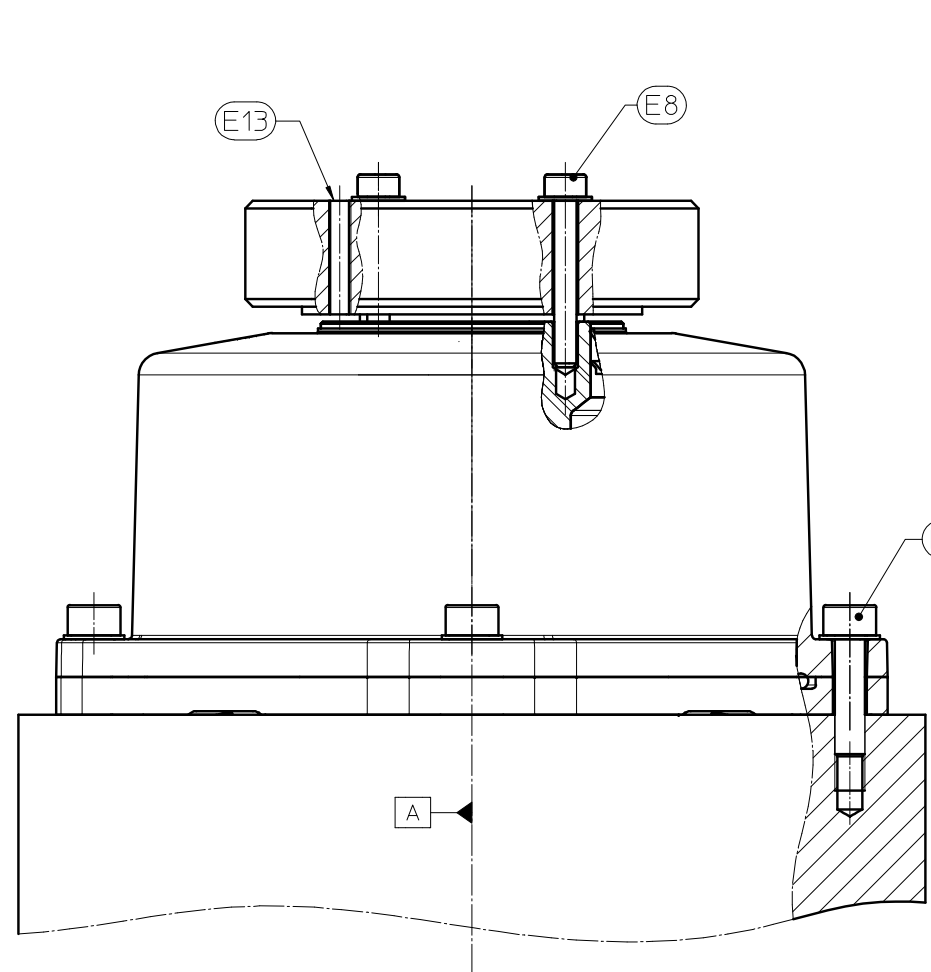
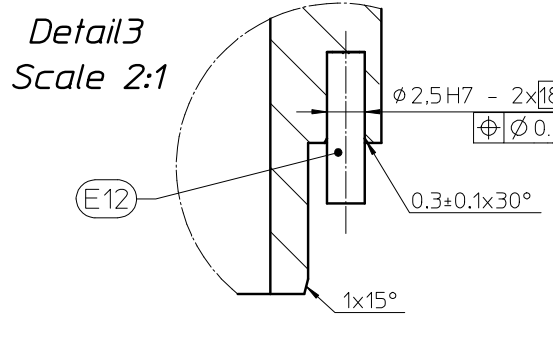
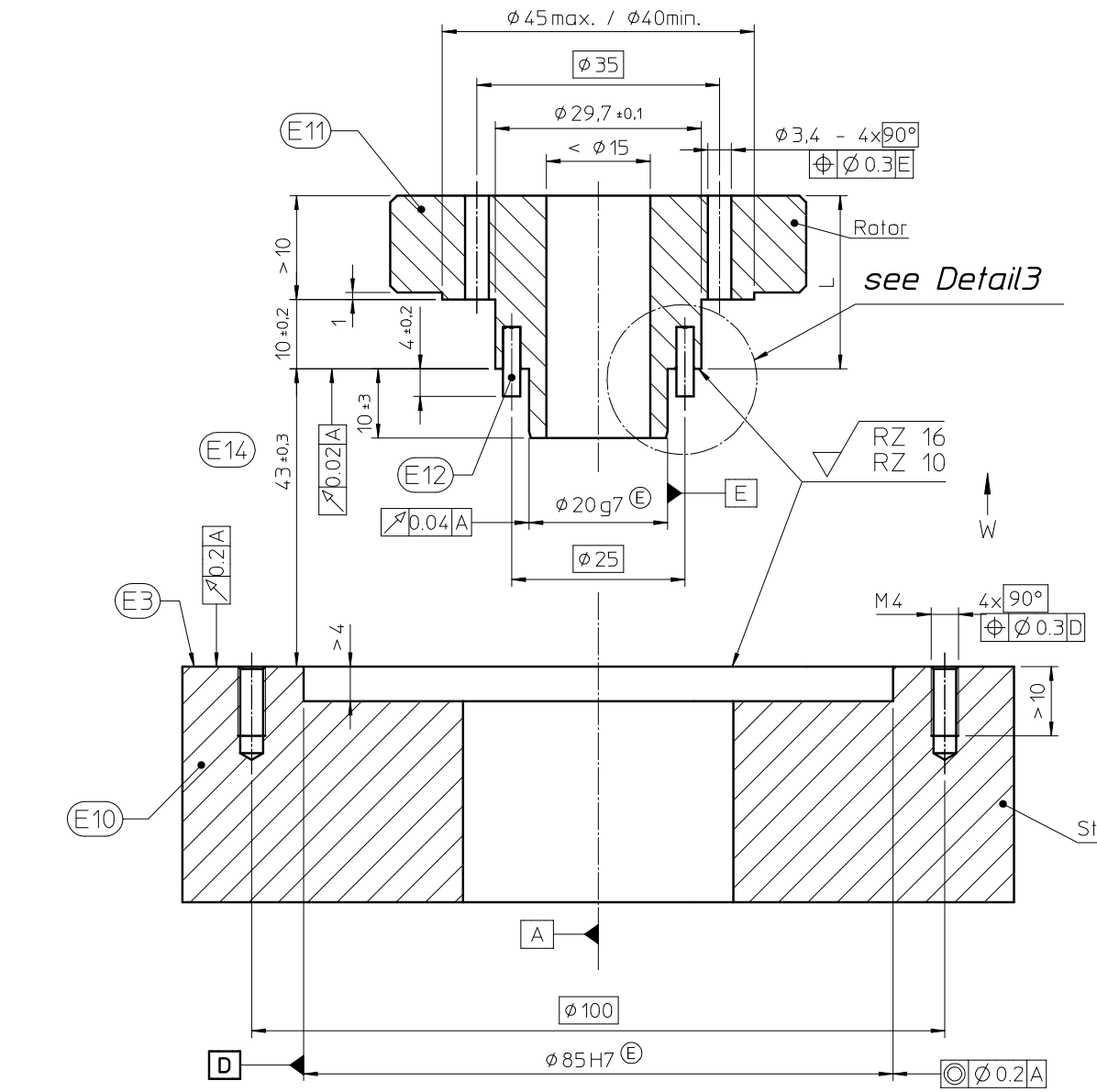
WITH MECHANICAL FAULT EXCLUSION



ALTERNATIVE MOUNTING OPTION: FRONT END SHAFT COUPLING
WITHOUT MECHANICAL FAULT EXCLUSION

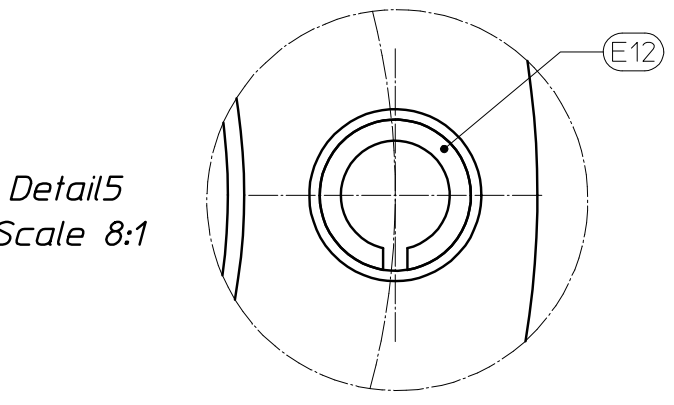
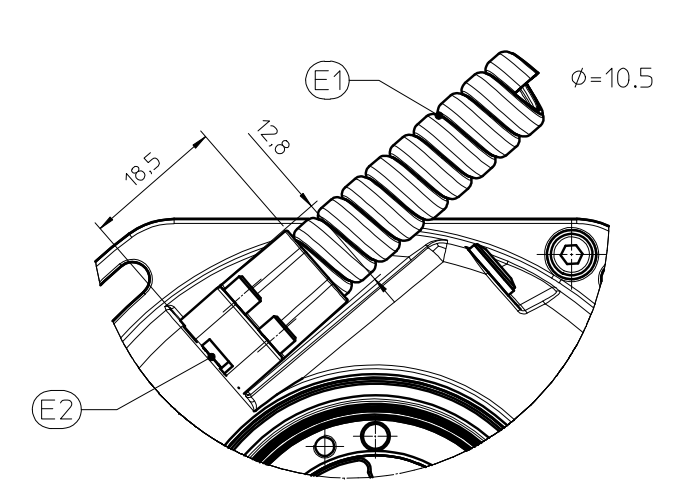
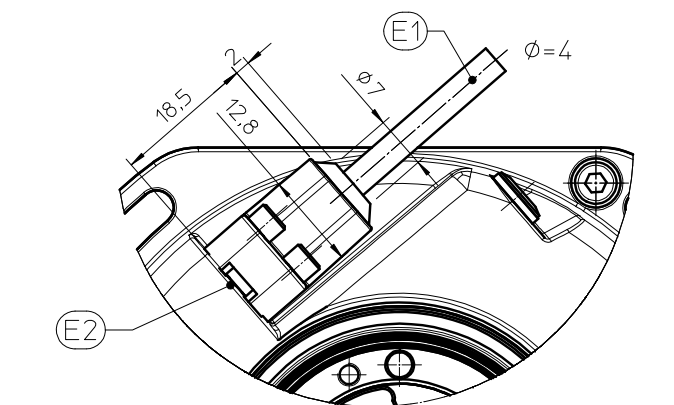
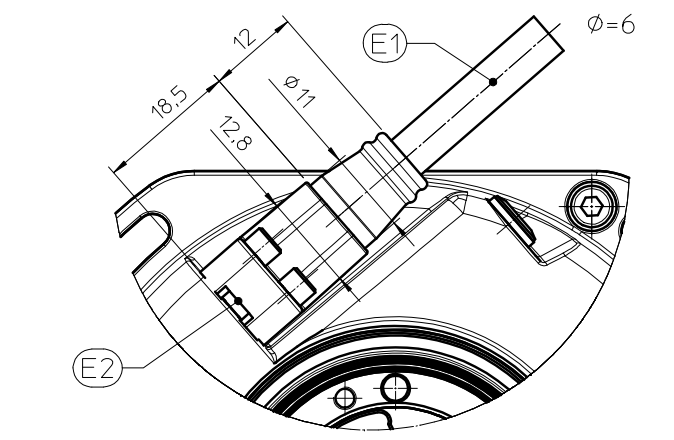


WITH MECHANICAL FAULT EXCLUSION



DIFFERENT TYPES OF CONNECTOR CABLES

- Three different types of cable:
- Cable 6mm.
 - Cable 4mm.
 - Cable 10.5mm (with protection).
- Bend radius for flexible configuration for:
- Cable 6mm: R>60mm.
 - Cable 4mm: R>40mm.
 - Cable 10.5mm: R>60mm.
- Bend radius for rigid configuration for:
- Cable 6mm: R>24mm.
 - Cable 4mm: R>16mm.
 - Cable 10.5mm: R>35mm.
- Cable support.



Detail5
Scale 8:1

BOTH SPRING-TYPE STRAIGHT PINS:
Mounting direction as shown or both spring-type straight pins rotated by 180° (mount slot in tangential direction), spring-type straight pin must be inserted burr-free a potential chipping has to be removed.

Detail4
Scale 8:1

ABBREVIATIONS

- [A] = Bearing of mating shaft.
- [M] = Assembly sizing set by customer.
- [R] = Compressed air intake.
- [C] = Connector.
- [I] = 0° position index +5°.
- Pa = Tightening torque
- [E1] = Direction of shaft rotating for output signals is described in interface description.
- [E3] = Mounting surface.
- [E4] = ID: 82620150
Tightening torque of rig nut: 30Nm/3Nm
Materially bonding anti-rotation lock necessary fix mating shaft when mounted.
- [E5] = ID: 82620155
(Shaft coupling) Mechanical fault exclusion: washer using with ring nut (IE4) necessary.
- [E6] = Hexagon socketed head cap screws M4: Pa=2.5x0.15Nm
Screw: DIN912-M4x16
Screw property class: INOX A2
Washer: DIN433-4-INOX A2
Materially bonding anti-rotation lock necessary.
- [E7] = Hexagon socketed head cap screws M4: Pa=2.9x0.15Nm
Screw: DIN912-M4x20
Screw property class: 8.8
Washer: DIN433-4-200HV
Materially bonding anti-rotation lock necessary.
- [E8] = Hexagon socketed head cap screws M3: Pa=1.25x0.1Nm
Screw: DIN912-M3x14.5
Screw property class: 8.8
Washer: DIN433-3-200HV
Materially bonding anti-rotation lock necessary.
- [E12] = 2x spring type straight pin for mechanical fault exclusion necessary DIN1481-2.5x10.
Mounting sequence:
1. Mount spring-type straight pins in correct angular position (see detail 4 and 5) in part E11.
2. Mount part E11 using E8 screws.
3. Pay attention to reference dimension Z: L-9-Z=+0.15
- [E13] = Using spring-type straight pins removing threads (M3) necessary, otherwise optional.
- [E14] = Tolerance specification includes mounting tolerances and thermal expansion. No dynamic movement permitted.
- [N1] = Mounting surfaces and threads must be clean and free of grease.

Material	Material	Material
Ferrous materials (steel/cast iron)	Ferrous materials (steel/cast iron)	Ferrous materials (steel/cast iron)
Tensile strength	R_m	$> 600 \text{ N/mm}^2$
Shear strength	T_B	$> 390 \text{ N/mm}^2$
Interface pressure	P_G	$> 660 \text{ N/mm}^2$
Modulus of elasticity	E	110000 N/mm^2
Coefficient of expansion (at 20°C)	α_{max}	$10 \times 10^{-6} \text{ K}^{-1}$
Mounting temperature		All information regarding screw connection is based on a mounting temperature of 15°C to 35°C

Summary	ANGULAR ENCODER MODEL H3B-D90	1	Propa.	App.	Date	Scale: 1:1
Rev.	Designation	Quant.	Material	Finish	Treatment	
Drawing N°	PT-2-028-2	Date	01/2023	Fagor Automation		
Replaces	Design by	AINARA	S. Coop.			
	Check by	ZUNZU	20500 Mondragón			

