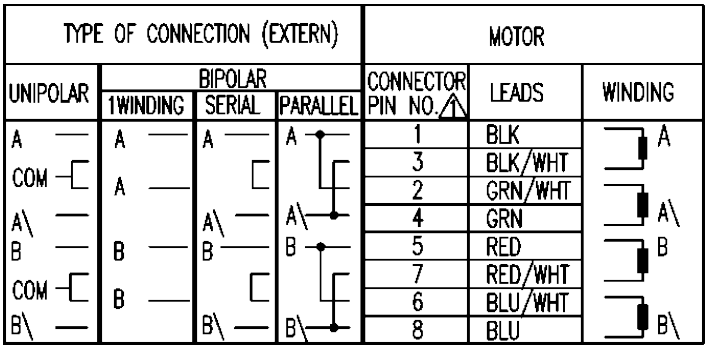
I. Connector assignment TCT-2

Connector 7-pole (electronics):

PIN	Cable colour	Function / description	Remark
1	red	+6 to +24V DC electronics for position sensor	A
2	black	0V DC electronics for position sensor	
3	yellow	Relay - Base	B
4	brown	Relay - Output A	
5	blue	Relay - Output B	
6	-	-	-
7	-	-	

Connector 8-pole (stepper motor):

PIN	Cable colour	Function / description	Remark
1	black		C
2	green / white		
3	black / white		
4	green		
5	red		
6	blue / white		
7	Red / white		
8	blue		

Warning !

The notes following on the next page must be observed carefully.

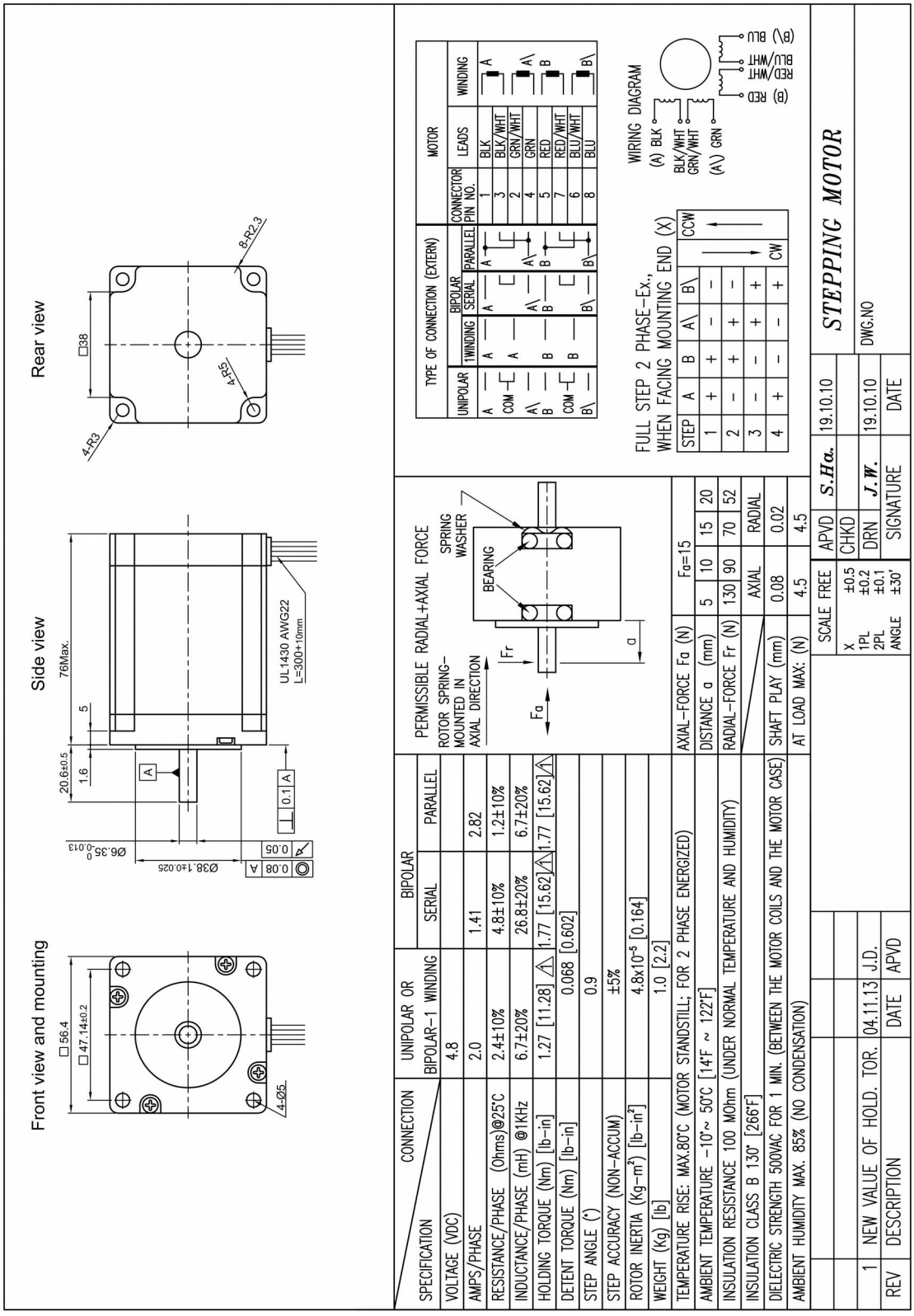
II. Remarks to the connector assignment concerning TCT-2

Remark	Description
A	The electronic system for the position sensor has to be supplied with a direct current of 6V to 24V. Electronics have to be fused externally; the maximum current must not exceed 500mA
B	The position sensor controls an integrated relay that can be used by the supervising CNC controller as a limit or reference switch: • Once the blade has reached the homing point during a reference run, there is contact between **PIN3** and **PIN5** of the 7-pole M16 connector. • If the blade is located outside the reference position, there is contact between **PIN3** and **PIN4** of the 7-pole M16 connector. • Depending on the applied CNC controller, the integrated relay can be used as a normally closed switch (NC) or as a normally open switch (NO). • The switching voltage of the relay must not exceed 24V DC; the maximum switching current must not exceed 500mA.
C	The connection of the stepper motor depends on the driver used. The following documentation has to be observed carefully. Stepper motor and stepper controller have to be fused externally.

Warning !

The electrical and mechanical connection of the processing unit has to be done with utmost accuracy by an expert only. It is not allowed to put the unit in operation before all necessary and required country-specific safety regulations have been observed and checked carefully. Only the operator of the facility (i.e. machining system) is responsible for observing all relevant safety regulations.

III. Stepper motor specifications

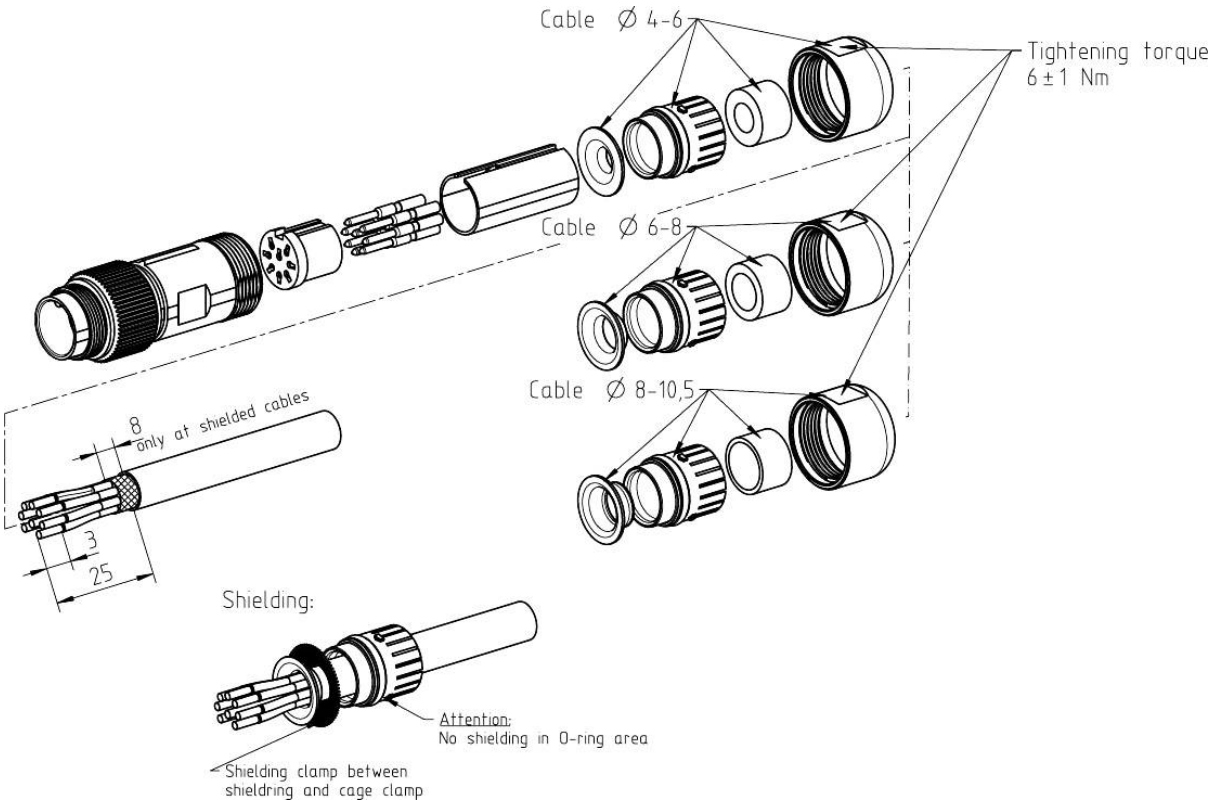


IV. Cable preparation for connectors with crimp contacts

ECOCAM #300100
Cable Connector, M16, **7 pin**, female,
shieldable, metal housing,
cable diameter 8-10,5mm

ECOCAM #300200
Cable Connector, M16, **8 pin**, female,
shieldable, metal housing,
cable diameter 8-10,5mm,

Compatible with socket crimp contacts:
#300300 - 0,14 - 0,25mm2 / AWG 26 -24
#300400 - 0,35 - 0,5mm2/ AWG 22-20
#300500 - 0,75 - 1,0mm2 / AWG18



V. Overview of socket crimp contacts for cable connectors

Order number	Connecting range	Wire Gauge		Stripping length	Crimp height (Average values)	Crimp Retention force DIN EN 60352-2
	mm2	mm2	AWG	mm	mm	N
#300100 	0,14 - 0,25	0,14		3,0 + 0,5	0,86 - 0,9	18
			24			28
		0,25			0,91 - 0,97	32
#300200 	0,35 - 0,50	0,35	22	3,0 + 0,5	0,90 - 1,06	40
		0,50	20		0,95 - 1,11	60
#300300 	0,75 - 1,00	0,75		3,5 + 1,0	1,33 - 1,50	85
			18			90
		1,00			1,36 - 1,53	108