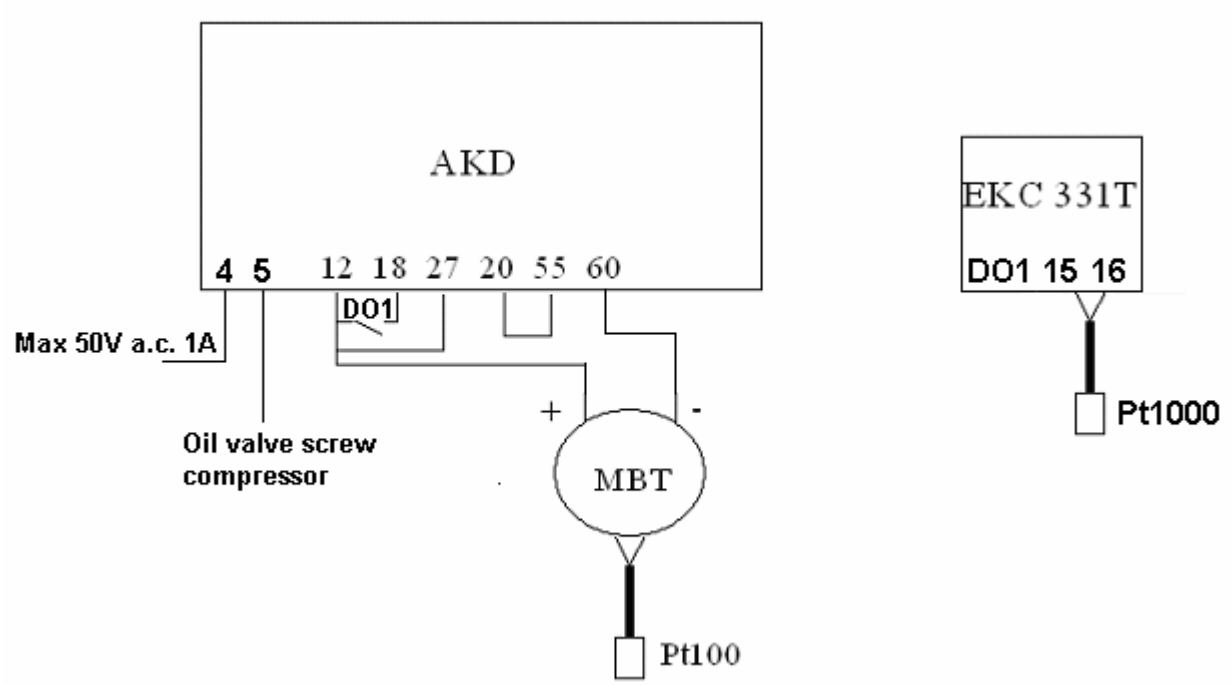
AKD 5000 connected to MBT (4-20 mA) and EKC 331T

Connections have to be made according to the drawing below:



Connection 12-18 = ON /OFF switch AKD (low-pressure switch etc??)
Connection 12-27 = starting condition AKD
Connection 20-55 = common

The following settings have to be made in the AKD:

002 Remote
100 Proces Closed Loop
101 High Constant Torque (compressor), Variable Torque High (condenser fans)
102 Power motor(kW)
103 Voltage motor
104 Frequency powergrid(Hz)
105 Current motor (A)
106 RPM motor (at 50 Hz)
201 Minimum frequency
202 Maximum frequency
204=414 Minimum setting of the MBT in degrees
205=415 Maximum setting of the MBT in degrees
Attention!! Parameters 204 and 205 are limited by parameters 414 and 415
207 Ramp up time (1 sec)
208 Ramp down time (1 sec)
215 Setpoint in % (0% = parameter 204, 100% = parameter 205)
225 5 Hz
314 Feedback

315 Minimum feedback (4 mA)
316 Maximum feedback (20 mA)
326 Out of frequency range
416 Bar
417 Inverse
439 Starting frequency (= parameter 201)
440 1
441 30

In the EKC 331T the following settings have to made:

Setpoint (in degrees)
r01 3 K
c10 4 K
c11 3 min
c12 60 sec
c13 4 K
c14 1 min
c15 30 sec
010 8
019 Number of outputs
030 Referigerant

Relay 4-5 is connected to the oil valve of the screw compressor. We want this valve to open when the compressor is running at 5 Hz (parameter 225).
When we don't do this, the valve will open too soon and will make the screws rotate in the wrong direction, which will make the starting current of the compressor way too high.

The setpoint in the AKD and in the EKC331T have to exactly the same.