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## 1. Introduction

This Application Note shows how to use the Registration with Touch Probe Enabled on the ESTUN PRONET Drive (*Pronet SUMMA will be used for Illustration*)

## 2. Steps

4) Add the Drive Profile #3 to MC\_CONFIG

therCAT Profile Disp	lay	▼ □ ×
Model: Estun Pro Vendor: ESTUN AU Profile No: 3	oNet (0x00000001) ITOMATION TECHNOLOGY CO. LTD (0x0000060A)	1
Display Profile	PDO Config	^
Position (65)	RxPDO0: Control Word, 2 bytes1: Target Position, 4 bytes2: Touch Probe Function, 2 bytes3: padding param, 3 bytes4: Digital Outputs, 1 byteTxPDO0: Status Word, 2 bytes1: Actual Position, 4 bytes2: Touch Probe Status, 2 bytes3: Touch Probe 1 Pos 1, 4 bytes5: Touch Probe 2 Pos 1, 4 bytes5: Touch Probe 2 Pos 2, 4 bytes6: Touch Probe 2 Pos 2, 4 bytes7: Actual FE, 4 bytes8: padding param, 2 bytes9: Digital Inputs, 1 byte10: padding param, 1 byte	~
🖎 🦪 🔻 🛃	Add to MC_CONFIG Clo	se

This profile has Touch Probe & Digital Input enabled in the PDO



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(AII)		Name	Modifier	Value	Comment				
IP Configuration		DRIVE_PROFILE	🔞 AXIS(0)		3				
	on	DRIVE_MODE	🔞 AXIS(0)		1 Position				
EtherCAT		DRIVE_MODE	🔞 AXIS(1)		1 Position				
		DRIVE_PROFILE	🔞 AXIS(1)		3				

5) Connect the IO cables to the Pronet Drive based on the wiring schema

Allocable signals are as	following:
S-ON: Servo ON	
P-CON: P Control	
P-OT: Forward Run Prol	nibited
N-OT: Reverse Run Prol	hibited
ALM-RST: Alarm Reset	

+24		-
DICOM	20	
- S-ON	15	3.3K0 ₩ = 1.
- P-CON	16	
P-OT	17	
N-OT	18	
- ALM-RST	19	
EXT1	3	<u></u>
EXT2	4	<u>*</u> ‡‡≓l.
		_

Control Mode	Signal Name	Pin No.	Function		
	/S-ON	15	Servo ON: Turns the servomotor on.		
	/P-CON	16	Function selected by parameter.		
Speed			Proportional control reference	Switches the speed control loop from Pi to P control when ON.	
Position Torque	P-OT N-OT	17 18	Forward run prohibited Reverse run prohibited	Overtravel prohibited: Stops servomotor when OFF.	
	/ALM-RST	19	Alarm reset: Releases the servo alarm state.		
	DICOM	20	Control power supply input for I/O signals: Provide the +24V DC pow supply		
Desilier	EXT1	3	Touch Probe input signals		
Position	EXT2	4			

## EXT1(Pin3) & EXT2(Pin4) are Touch Probe inputs

If you are using both inputs, then set P209.1 to 1

Pn209	Touch Probe input channel signal selection	After restart	Ρ	Pn209.0 Touch Probe Channel 1 input signal selection [0] Set CN1_3 as channel 1 input signal [1] Set CN1_4 as channel 1 input signal [2] Use internal signals for testing Pn209.1 Touch Probe Channel 2 input signal selection [0] Set CN1_3 as channel 2 input signal [1] Set CN1_4 as channel 2 input signal [2] Use internal signals for testing
Pn210	Touch Probe input signal filtering time	Immediately	Ρ	The time for filtering the input signal. Unit is $0.01 \mu \text{s}$



6) You can view the Touch Probe status via the ESView software

Monitor - ED3S-04AHA

Name	Value		Unit
Speed Feedback	0		r/min
Internal Torque Reference	1		%
Rotation Pulses	106587	106587	
Setting Pulse Counter	417961392		1Pulse
Encoder Multi-turn	0		
Encoder Single-turn	316299		
Load Inertia Percentage	0		%
Overload Ratio	0		%
Present Location	417950850		1Pulse
Error Pulse Counter	4		1Pulse
TP2	0		
TP1	0		

## 3. Sample Program

In this example, I am using Registration inputs and storing the position in VR's

```
DIM buffer_index, counter AS INTEGER
loop:
BASE(0)
OPEN WIN=100
CLOSE_WIN=500
REGIST (20,0,0,0,1)
WAIT UNTIL MARK
WA(200)
PRINT#5, "TouchProbe A="; REG POS
delay:
counter=counter+1
IF counter<20000 THEN
GOTO delay
ELSE
    counter=0
    GOTO loop:
ENDIF
GOTO reg:
reg:
IF buffer_index<=9 THEN
    VR(VR(10)) = REG POS
    VR(10) = VR(10) + \overline{1}
ENDIF
```