

## **DIS Sensors by**

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## CRC generator program for CANopen Safety sensors

## V0.2

1. Download and install the latest version of CRC generator. https://dis-sensors.com/en/downloads/software

Software		
Cyclic Redundancy Check (SIL2 sensors)		
Setup CRC.exe (zip file)		
Configurator		
QG40N configurator		

- 2. Acquire new account by sending email to support@dis-sensors.com.
- 3. Start the program and log in, select your sensor type in the Product list. You can read your product type out the Object Dictionary with Index 1018h Sub index 02h, more details in CAN manual.

CRC generator V1.4		<u>100</u>	
Type Sensor NodeID (Dec) 1	Produc	t J	~
CRC for safety related dat	a objects SRDO 1	Safety Inclination 1-axis Safety Inclination 2-axis Safety Inclination 2-axis Safety Acceleration +20	360° ±90° ±30°
SCT in ms (Dec)	20	Safety Acceleration ±20 Safety Acceleration ±40 Safety Acceleration ±80	
COB-ID 1 (Hex) COB-ID 2 (Hex)	101	Save settings	to file
CRC value (Hex)	4D9B	Sensor firmware V2.7 or	higher 🗸
Centering value X (Hex)	0	which is in degrees (Dec)	0.00
Centering value Y (Hex)	0	which is in degrees (Dec)	0.00
Centering value Z (Hex)	0	which is in degrees (Dec)	0.00
CRC centering (Hex)	ACEC		

DIS makes sense.



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 Select the firmware version of your sensor. You can read the firmware version out the Object Dictionary with Index 1018h Sub index 03h. e.g. v2.7 = 00020007h. More details in CAN manual.

CRC generator V 1.4		- u ×
Type Sensor NodeID (Dec) 1	ᅌ Produ	ct Safety Inclination 1-axis 360° ~
CRC for safety related da	ta objects SRDO 1	Load DIS default settings
SCT in ms (Dec) SRVT in ms (Dec)	80 20	Load settings from file
COB-ID 1 (Hex)	101	Save settings to file
CRC value (Hex)	62F6	Sensor firmware V2.7 or higher
CRC for Centering		Sensor firmware V2.6
Centering value X (Hex)	0	Which is in degrees (Lec)
Centering value Y (Hex)	0	which is in degrees (Dec) 0,00
Centering value Z (Hex)	0	which is in degrees (Dec) 0,00
CRC centering (Hex)	4184	

5. Other settings like SCT, SRVT,COB-ID, Centering value of X/Y/Z axis are also related to the calculation of the CRC, so make sure you fill in the right value.

Your current zero position value can be read out by Index 6200h Sub index 01h and 02h. more details see CAN manual.

- 6. Set your sensor to "pre-operational" mode by sending NMT 80h, the heartbeat should return "7Fh" if it enters pre-operational mode correctly.
- 7. Write CRC value to index 13FFh Sub index 01h, and write "A5h" to index 03FEh Sub index 00h to enable the SRDO configuration signature.
- 8. Write CRC centering to index 63FFh Sub index 01h, and write "A5h" to index 63FEh Sub index 00h to enable the Pre-set configuration signature.
- 9. Set your sensor into "operational" mode and you should see SRDO messages. E.g. 101h and 102h if node id is 01h.