0940 CSL 601: Error Codes (EMCY Messages)

A CANopen EMCY frame (refer CiA 301 Spec.) is generated by the 0940CSL601 module if a diagnostic state is active. The EMCY code and user information is according to the following chart.

EMCY code chart:

Error Desciption	EMCY Code	Error Reg.	Additional Information				
			BYTE 1	BYTE 2	BYTE 3	BYTE 4	BYTE 5
Internal Software Error	0x6100	0x01	0x00	0x00	0x00	0x00	0x00
CAN Message Overrun	0x8110	0x11	0x00	0x00	0x00	0x00	0x00
CAN Error Passive	0x8120	0x11	0x00	0x00	0x00	0x00	0x00
CAN Error Control	0x8130	0x11	0x00	0x00	0x00	0x00	0x00
PDO Length to small	0x8210	0x11	0x00	0x00	0x00	0x00	0x00
PDO Length to high	0x8230	0x11	0x00	0x00	0x00	0x00	0x00
Configuration Mismatch (Only if secured start is activated)	0x7000	0x01	0x00	0x00	0x00	0x00	0x00
Sub Bus Module communication error	0x7002	0x01	B	C	D	E	0x00
Sub Bus Voltage low	0x7003	0x01	F	0x00	0x00	0x00	0x00
Sub Bus Module Supply Error	0x7005	0x01	G	H	I	0x00	0x00

B: Modul Status Sub Bus Line 1

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
X	Slave 15	Slave 14	Slave 13	Slave 12	Slave 11	Slave 10	Slave 9

C: Modul Status Sub Bus Line 1

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Slave 8	Slave 7	Slave 6	Slave 5	Slave 4	Slave 3	Slave 2	Slave 1

D: Modul Status Sub Bus Line 2

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
X	Slave 15	Slave 14	Slave 13	Slave 12	Slave 11	Slave 10	Slave 9

E: Modul Status Sub Bus Line 2

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Slave 8	Slave 7	Slave 6	Slave 5	Slave 4	Slave 3	Slave 2	Slave 1

F: Bushead Sub Bus Voltage diagnostic

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
X	X	X	X	TH2	TH1	OL2	OL1

OL1: Overload Supply Sub Bus line 1
OL2: Overload Supply Sub Bus line 2
TH1: System Threshold Sub Bus line 1
TH2: System Threshold Sub Bus line 2

G: Sub-Bus line number (1 or 2)

H: Module number in sub bus line (Including place holder offset)

I: Diagnostic Byte

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
X	X	X	X	AOL	SOL	SUV	AUV

AUV: Actuator Undervoltage if set
SUV: Sensor Undervoltage if set
SOL: Sensor Overload (possible shorted)
AOL: Actuator Overload (possible shorted)