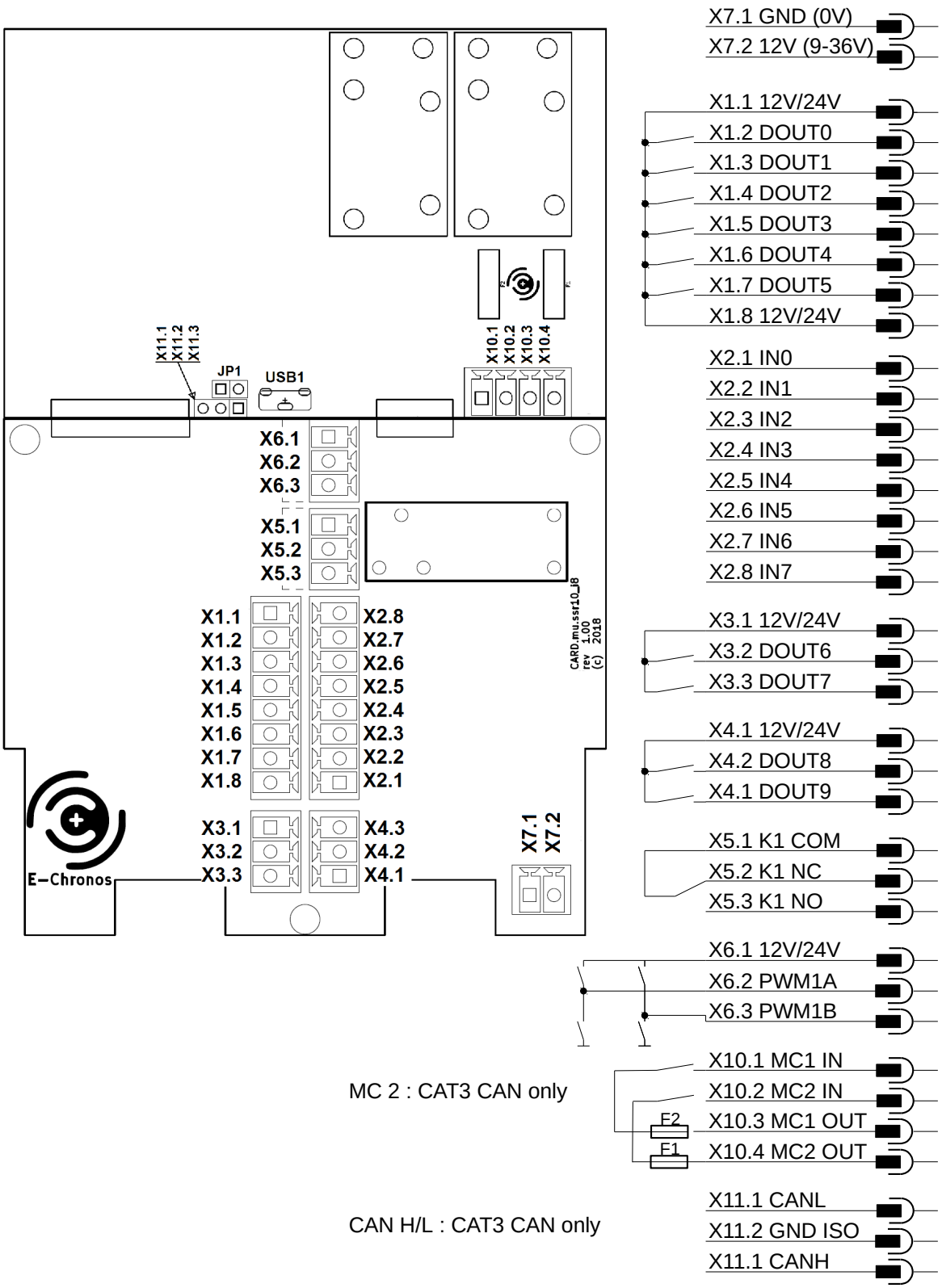
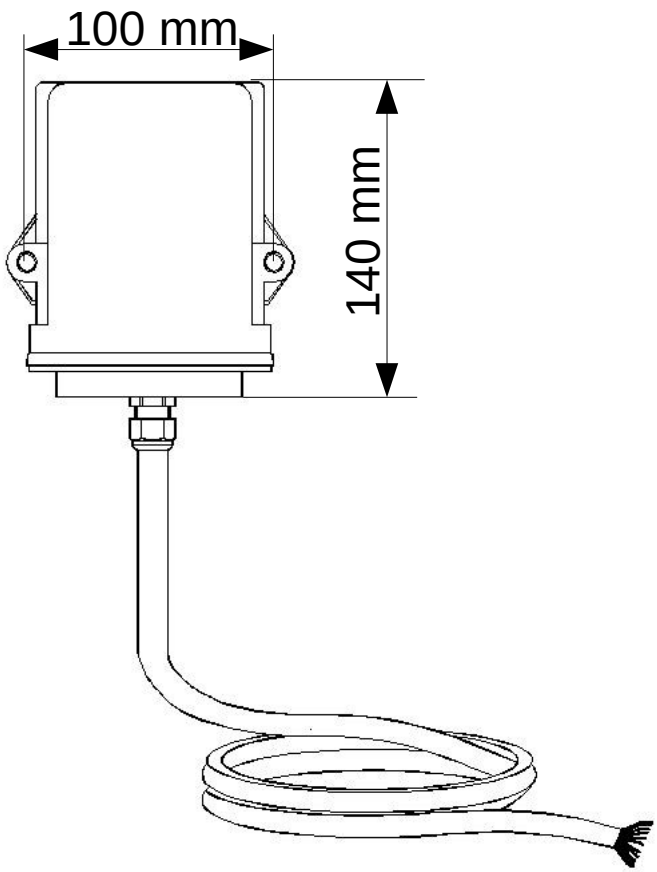
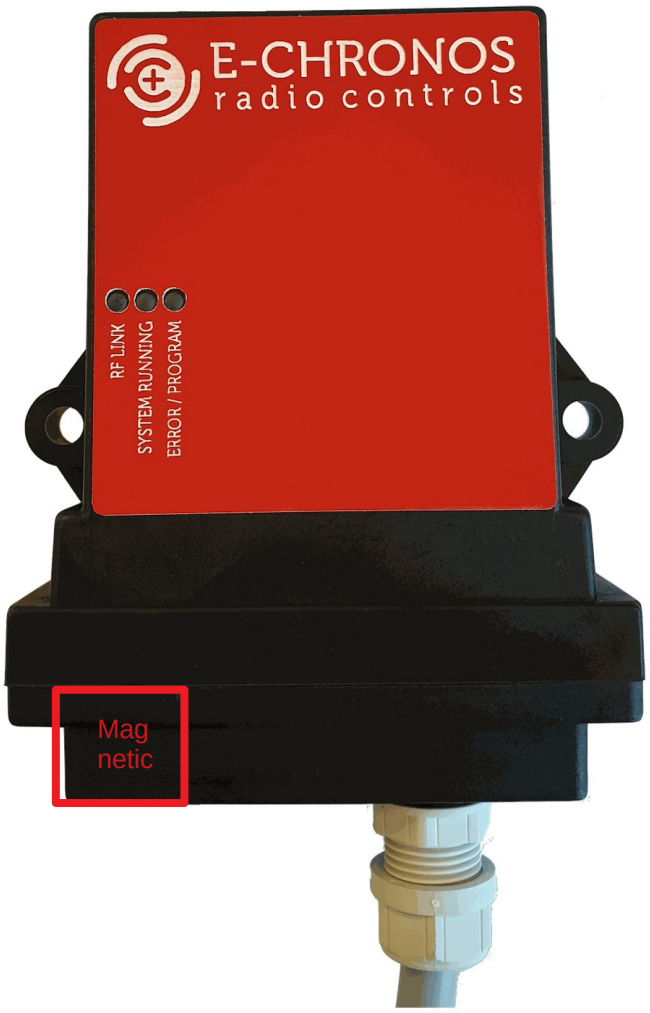


Version : -	MAX.YYYY	E-CHRONOS radio controls	Dessiné par : FAR.Y
	Customer		Le 06.09.2018
Format : A4			E-Chronos





Basic functionality : DF

Functionality	Normal Condition	Comments
Supply	12-24 VDC	±50 %
1x Main contact	12-24 VDC @ 6A	Free potiential
1x Relay	250VAC @ 8A	-20 to +70°C
10x Digitals outputs	12-24 VDC, 2.5A @ 70°C	Transit. protected
8x Digials inputs	0-24VDC	Transit. protected
1x PWM	12-24 VDC, 3A @ 70°C	Transit. protected
1x Magnetic sensor	digital	Learn function
1x jumper	No 120Ohm CAN termination	120Ohm CAN termincation

Other informations :

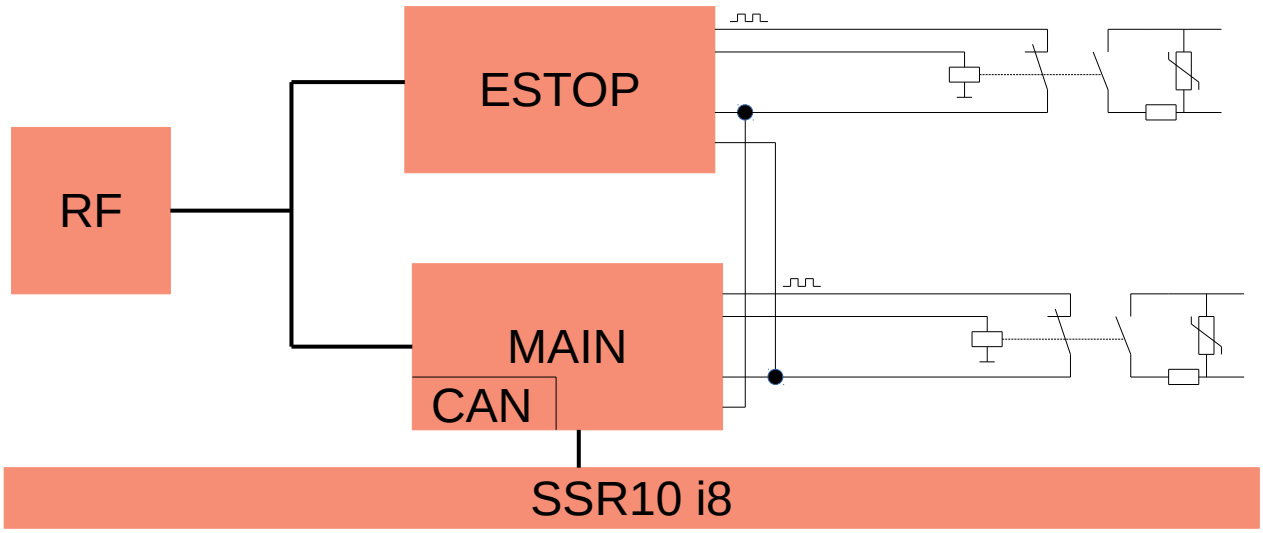
According to the MU, Category 3 PL d can be reached on the safety relay output. On the wiring, both outputs needs to be monitored.

Operating temperature : -20°C to +70°C
Typical range : 500 m
Passive Estop : < 500ms
Active Estop : < 100ms
Frequency : 863 – 870 MHz (20 Channels)
Transmitting Power : 25mW ERP
Adaptive Frequency Agility (Automatic Channel Management)
Listen before talk (LBT)

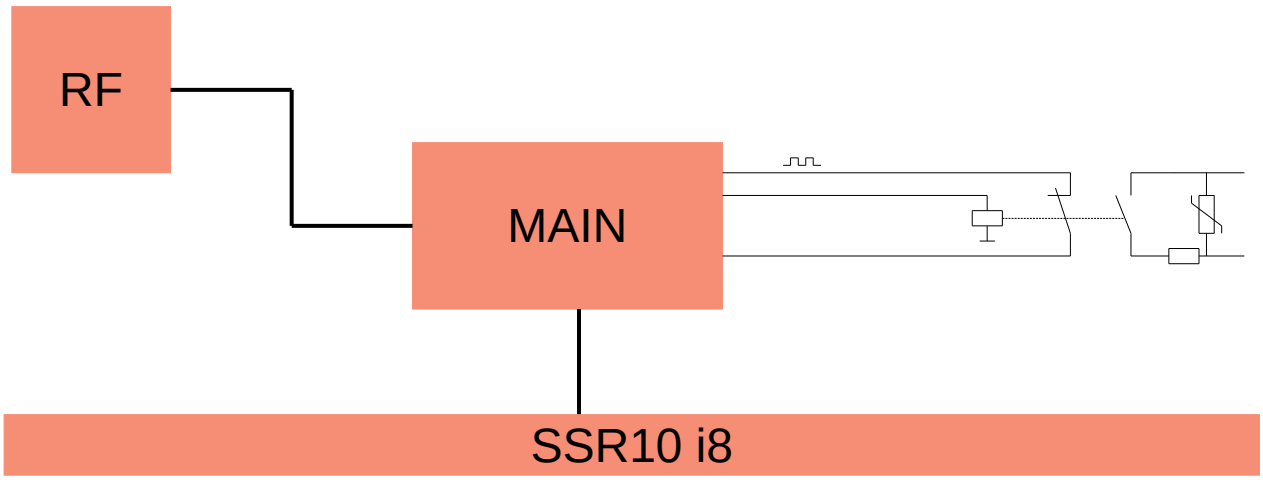
LED description :

Name	Color	ON	OFF	Blink 1x	Blink
RF Link	Green	System Ready	ERROR	-	RF link OK
System running	Yellow	ERROR	ERROR	ERROR	Normal
Error Program	RED	ERROR / PROG	OK	ERROR	ERROR

Block diagram CATEGORY 3 CAN :



Block diagram CATEGORY 1 no CAN :



E-CHRONOS radio controls

canOPEN functionality :

	Digital function							
TxPDO	Byte0	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
	LSB MSB	LSB MSB	LSB MSB	LSB MSB	LSB MSB	LSB MSB	LSB MSB	LSB MSB
0x180 + Node ID	00 01 02 03 04 05 06 07	08 09 10 11 12 13 14 15	16 17 18 19 20 21 22 23	24 25 26 27 28 29 30 31	32 33 34 35 36 37 38 39	40 41 42 43 44 45 46 47	48 49 50 res res res res res	LINK res res ST ES1 ES2

	Analog function 1							
TxPDO	Byte0	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
	LSB MSB	LSB MSB	LSB MSB	LSB MSB	LSB MSB	LSB MSB	LSB MSB	LSB MSB
0x280 + Node ID	00	01	02	03	04	05	06	07

	Analog function 2							
TxPDO	Byte0	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
	LSB MSB	LSB MSB	LSB MSB	LSB MSB	LSB MSB	LSB MSB	LSB MSB	LSB MSB
0x380 + Node ID	08	09	10	11	12	13	14	15

	Feedback							
RxPDO	Byte0	Byte1	Byte2	Byte3	Byte4	Byte5	Byte6	Byte7
	LSB MSB	LSB MSB	LSB MSB	LSB MSB	LSB MSB	LSB MSB	LSB MSB	LSB MSB
0x200 + Node ID	Offset	Data0	Data1	Data2	Data3	Data4	Data5	Data6

Other informations :

Baudrate : 125 or 250 kBits/s

ST : system started
ES1 : ESTOP 1 Main status
ES2 : ESTOP 2 Main status
LINK : is a 3 bits infromation from 0 to 7 to help you knowing if the RF link is good or not.
All informations above are only for standard information, any remap is possible.

Digital up to 50 functions.
Analog up to 16 functions.
Joystick 0x00 or 0xFF error otherwise see below :