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HEXAGON S.p.A. PRODUCTS

INTRODUCTION TO DC241 CONTROLLER

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DC241 SPECIFICATIONS

- Maximum number of axes 3 (linear axes X, Y and Z of the CMM)
- Max. total power output to power axes 240 W
- Axes encoder input Incremental type, digital TTL or analog 1Vpp voltage level
- Temperature sensors inputs 16 input channels for NTC100 type sensors

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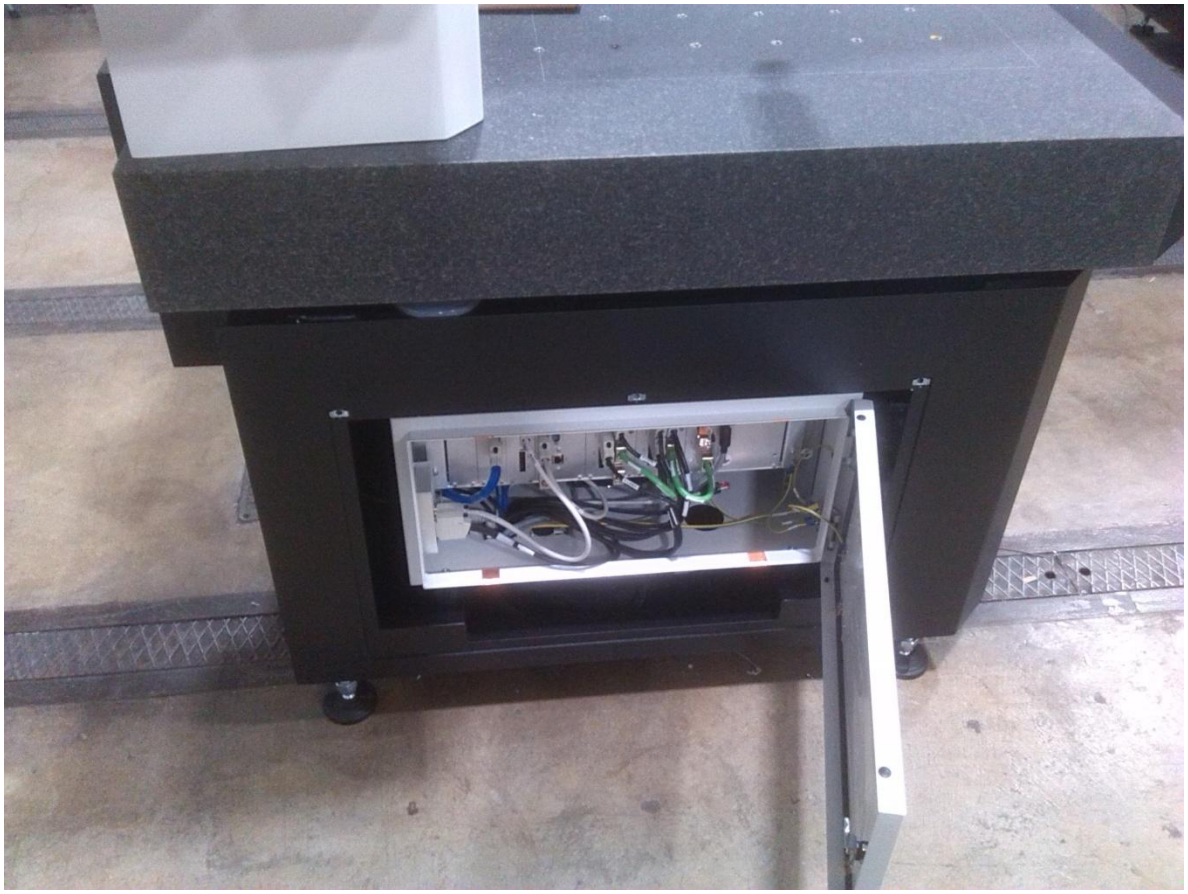
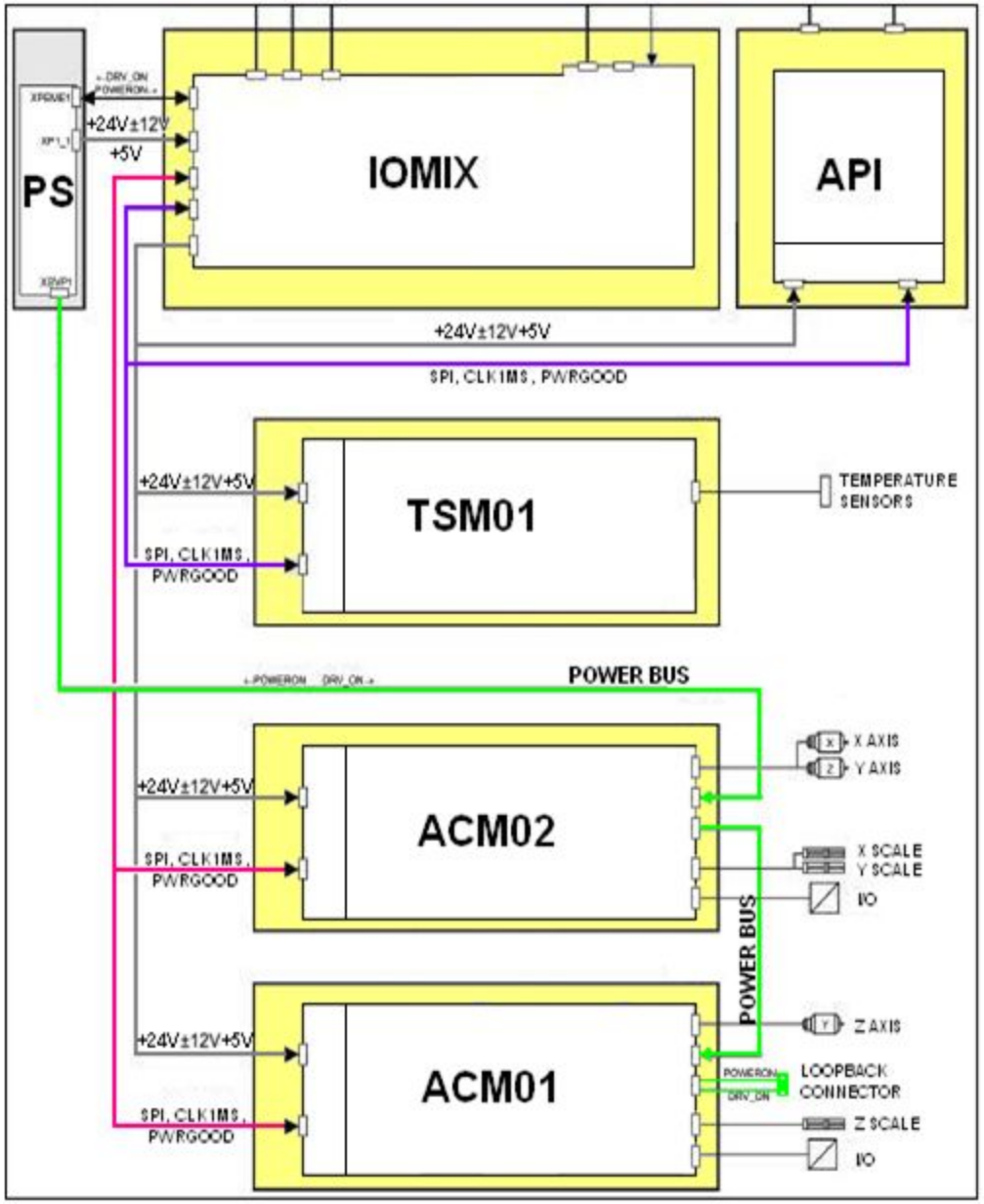
DC241

DC241 Controller is fixed inside the TIGO stand



DC241 BLOCK DIAGRAM



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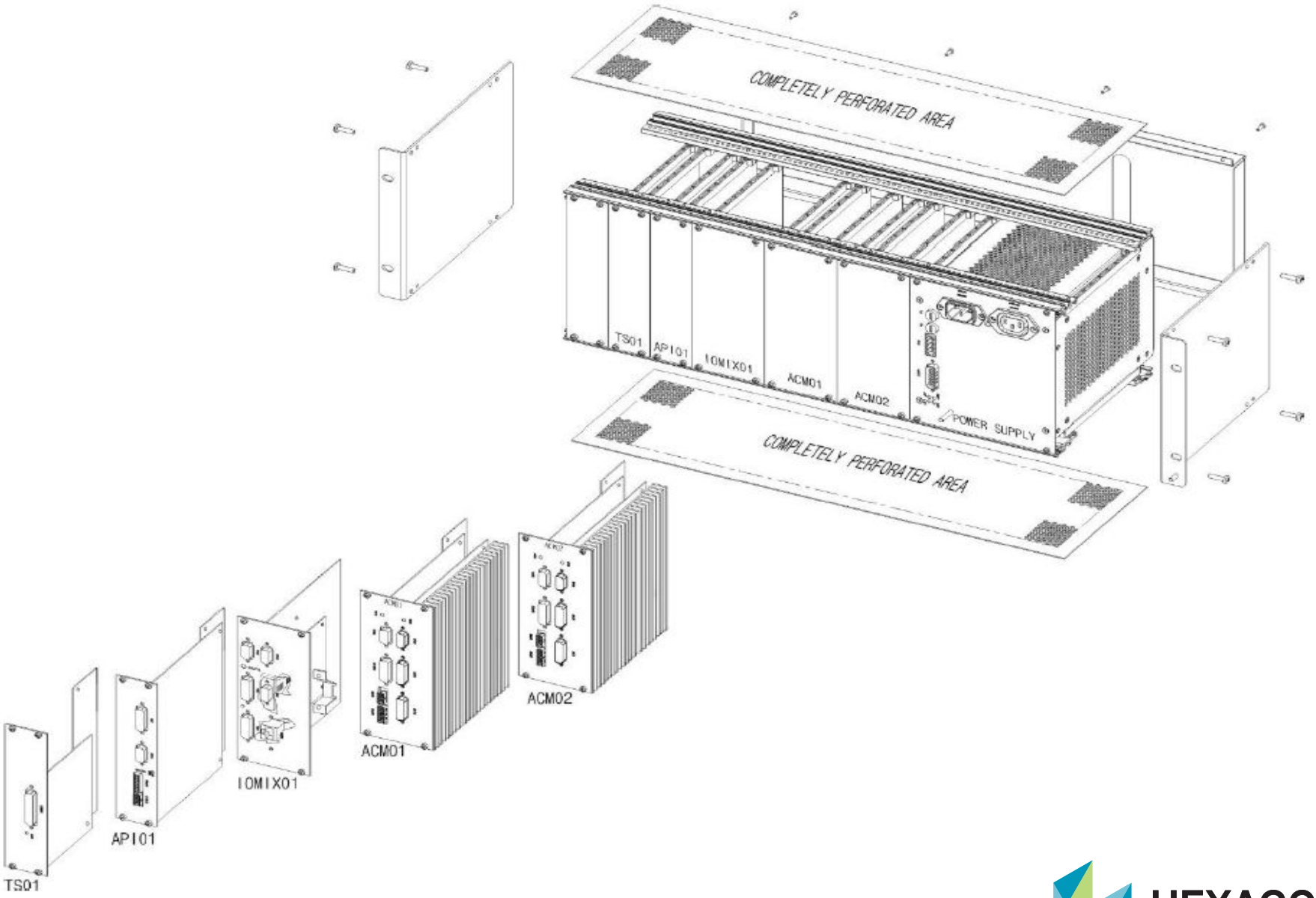
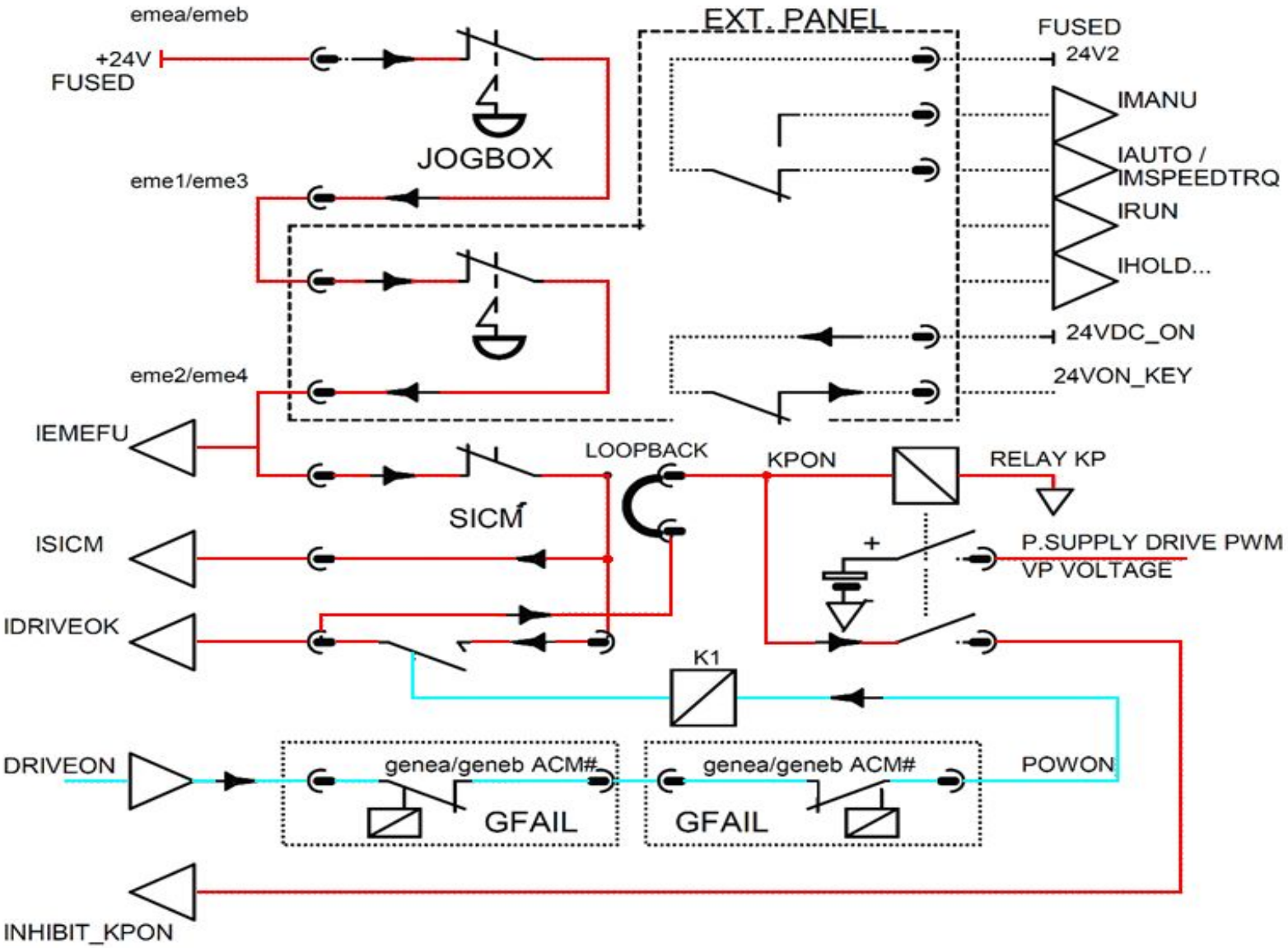
DC241 CABINET





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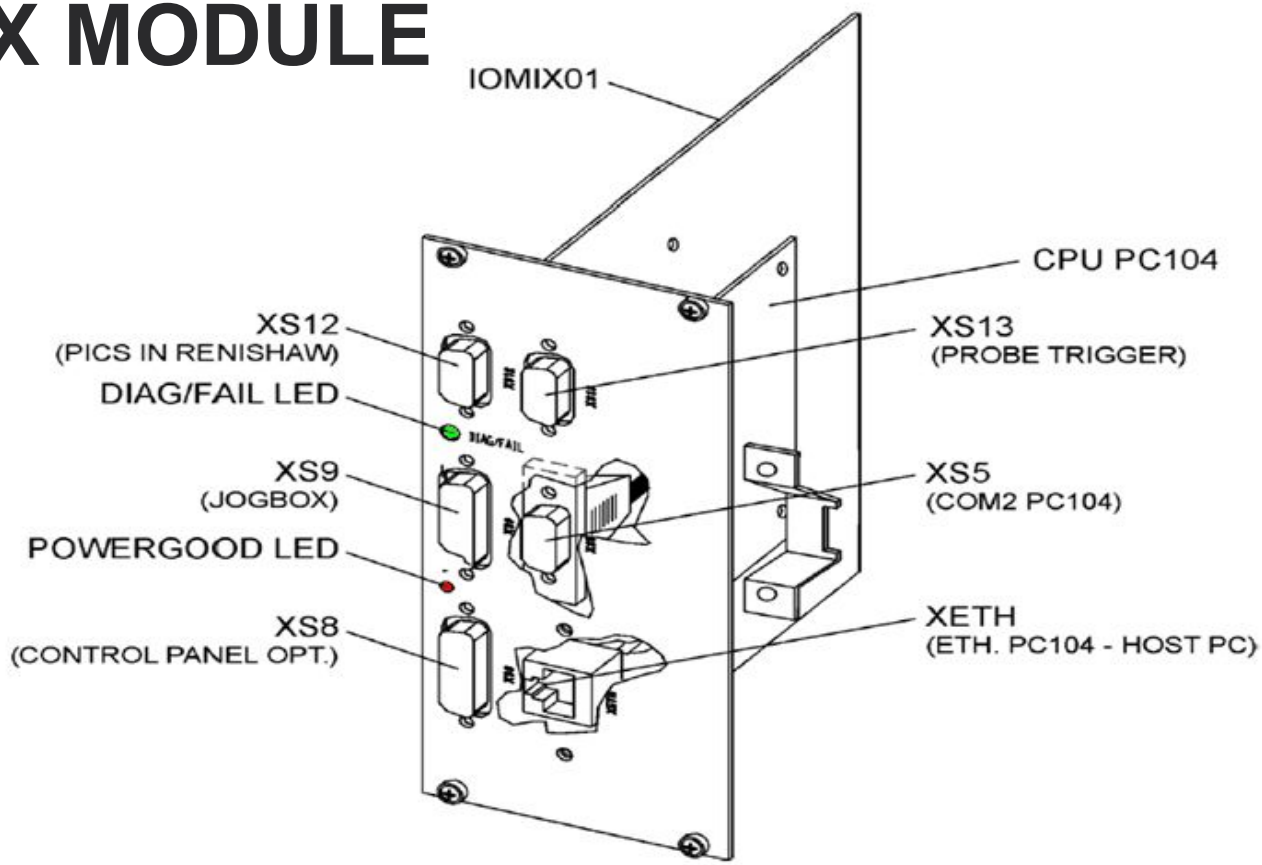
IOMIX MODULE



LED		Color	Function
DS1	**DIAG**	Green	Diagnostic Led: normal operation (RUN)
	FAIL	Red	Fault (available for future scopes)
DS4	**--**	Red	POWER-GOOD/HW Reset: if on, it indicates that one or more power supplies of the IOMIX01 card (+3,3V, ±12V, +5V, +2,5V) are out of tolerance: the CPU does not boot and the control system does not start.

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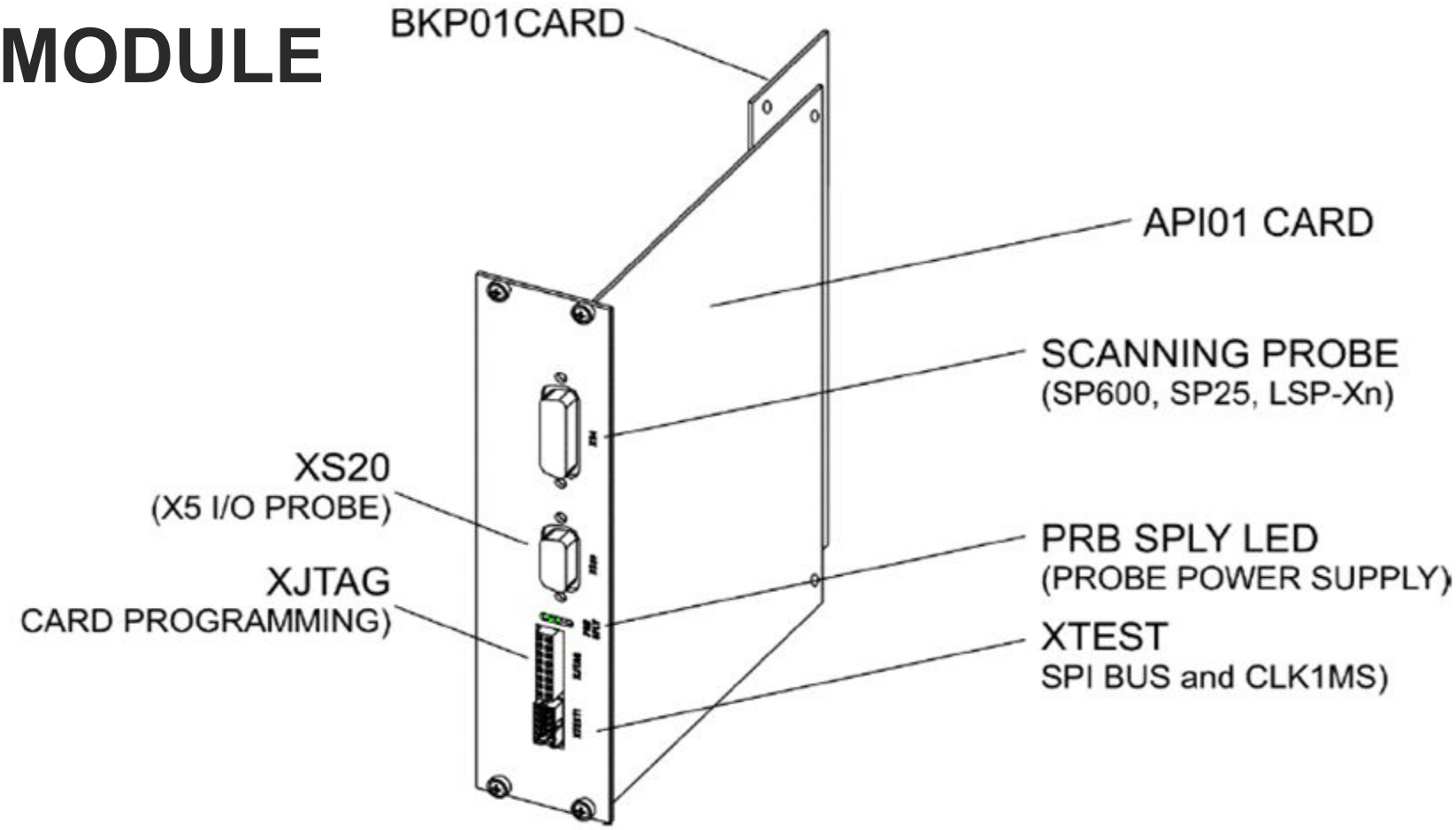
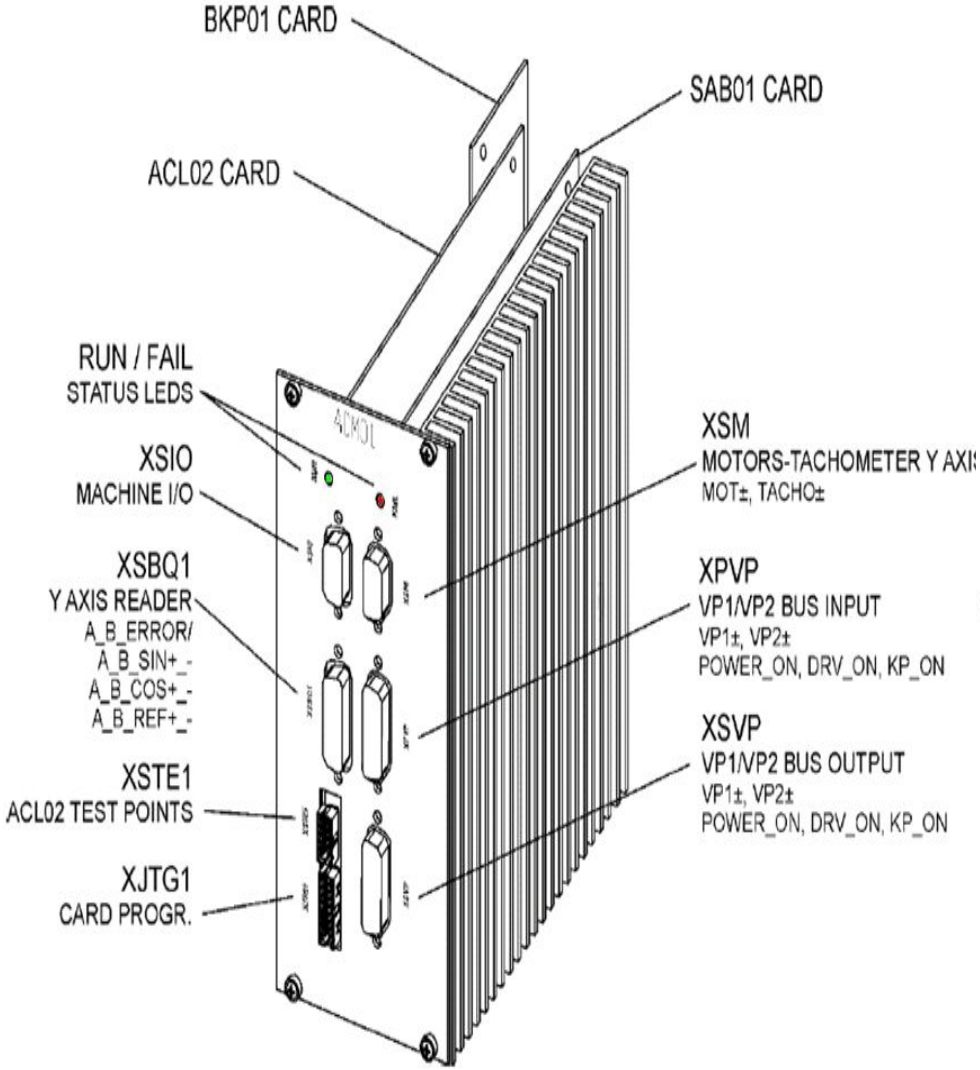
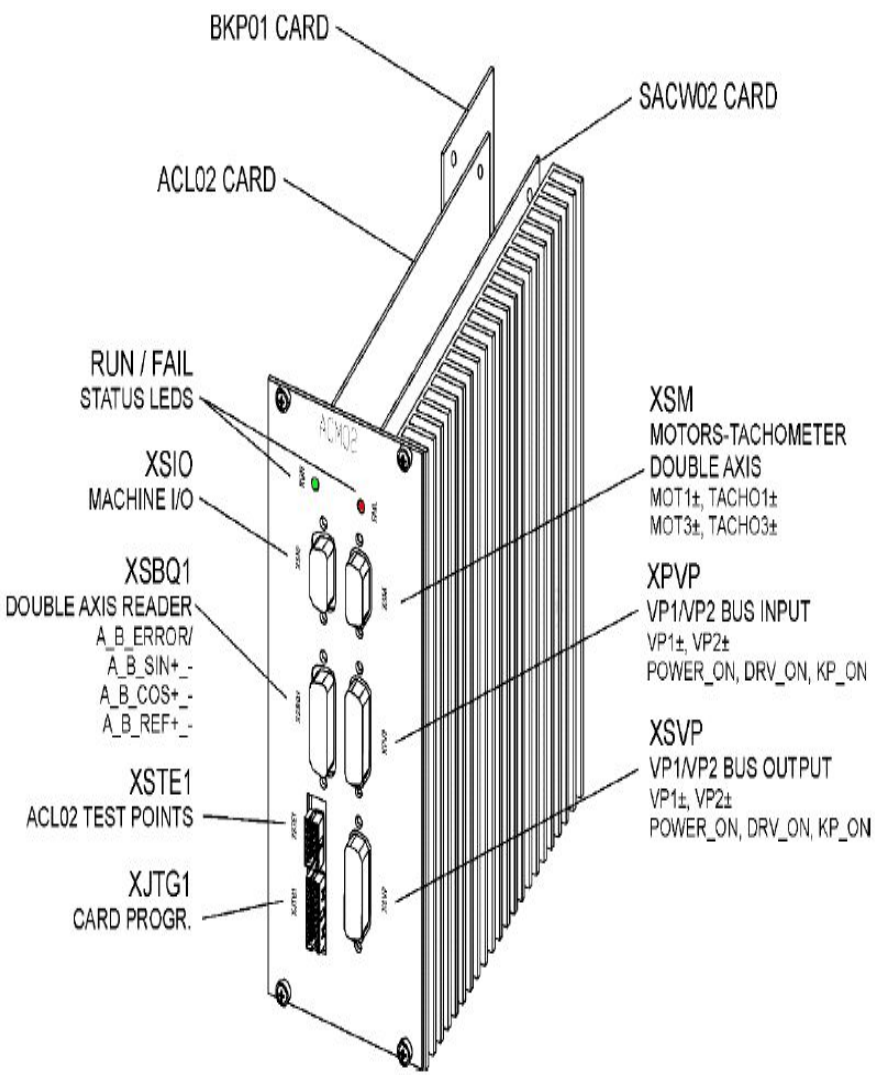
API MODULE



LED	Colore	Funzione
PRB SPLY	Green	Top: -12VAUX probe power supply enabled
		Middle: +12VAUX probe power supply enabled
		Bottom: -+5VAUX probe power supply enabled

ACM01 MODULES ACM02





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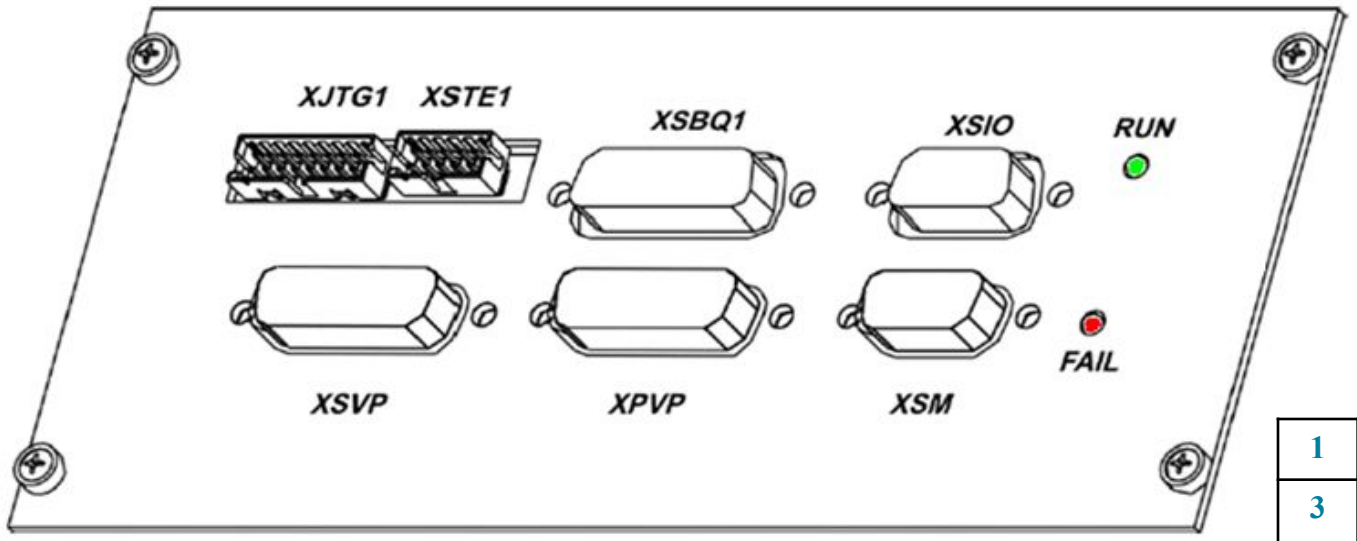
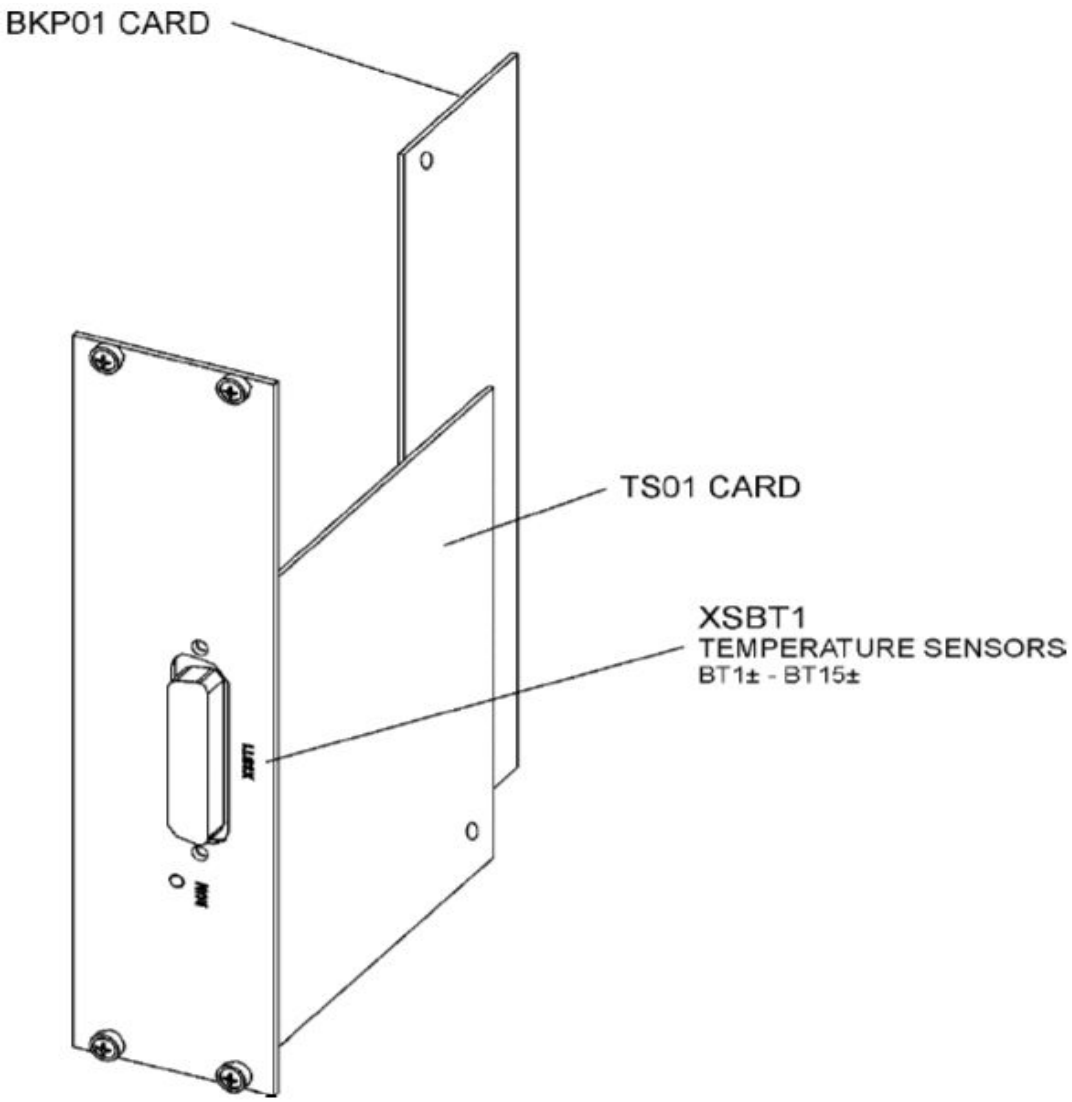


1	B SIN	2	A SIN
3	B COS	4	A COS
5	B REF	6	A REF
7	+ 3,3V	8	CUR A
9	+ 5V	10	TACH A
11	GROUND	12	TACH B
13		14	CUR B

LED	Colour	Function
RUN (ACL02)	Blinking green	DSP on and working with two blinking speeds • ACM01: fast blinking, 0.82 s ON / 0.82 s OFF • ACM02: slow blinking, 2.18 s ON /2.18 s OFF
	Red	• DSP failure • Watch-dog expired To reset the condition, switch off/on the control
FAIL (SAB01/ SACW01)	Steady red (SAB01) Orange (SACW01)	Driver failure: one of the drive emergencies listed in the Functional description of the SAB01 and SACW01 cards has occurred
	Off	Normal operation (no faults in drive hardware)

DC240/241	DC800
0.63 V -> 1A	0.315 V -> 1A

TSM01 MODULE



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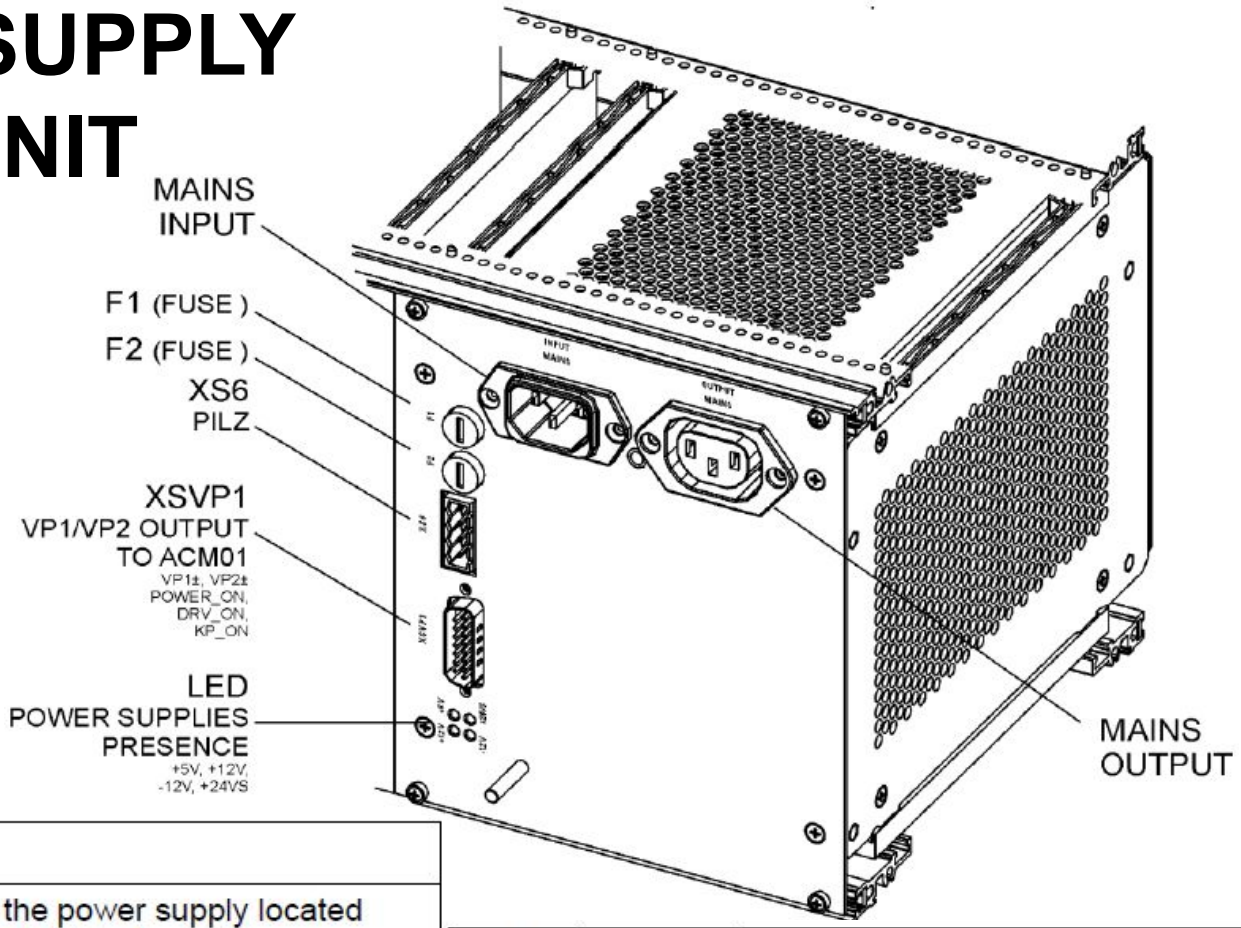
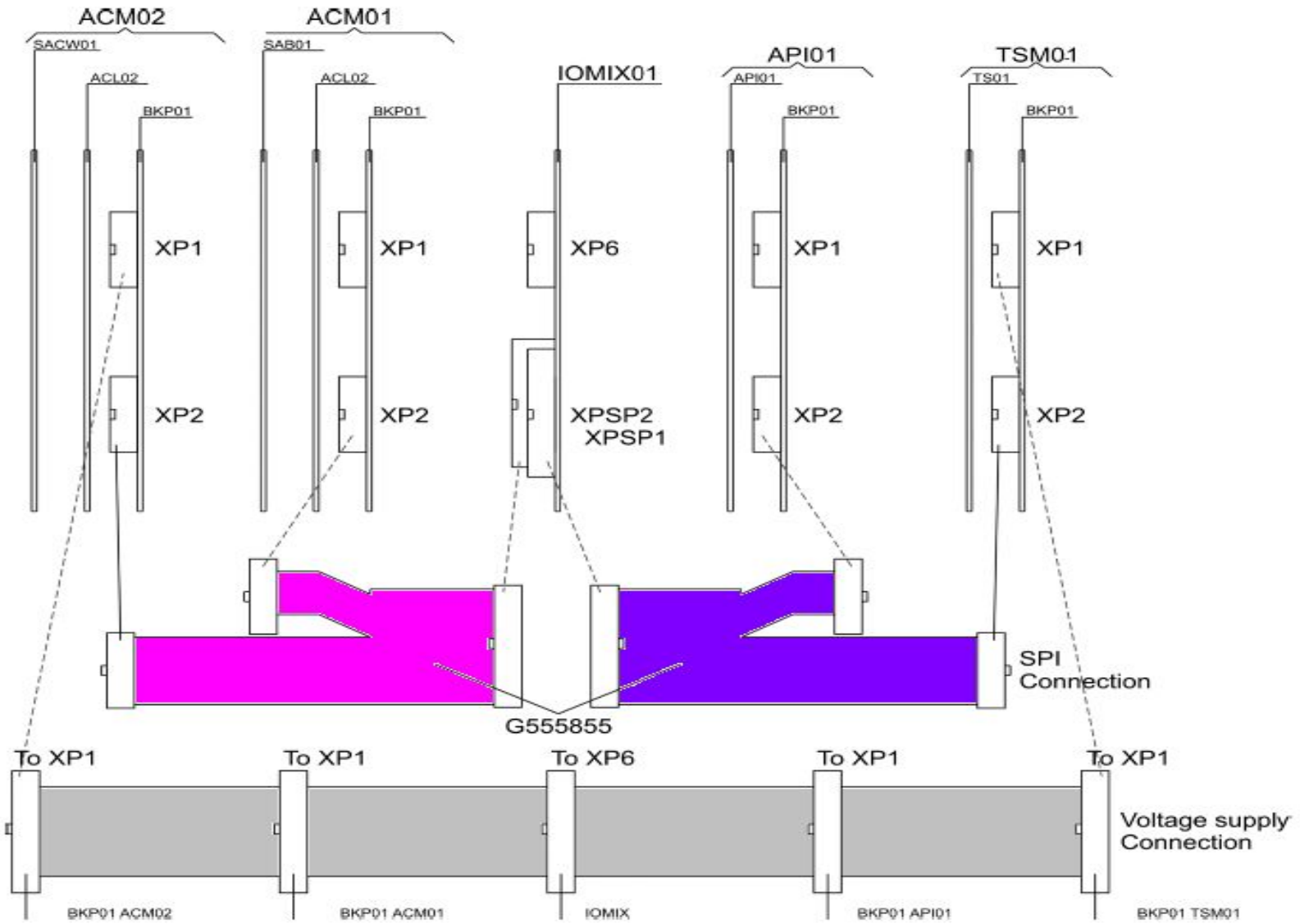
POWER SUPPLY UNIT



Device	Function
SWITCH	Power switch of the power supply located outside the control cabinet.
FUSE F1	• 6A, 250V for 220V-240V mains voltage • 12A, 250V for 100V-120V mains voltage
FUSE F2	• 6A, 250V for 220V-240V mains voltage • Not present for 100V-120V mains voltage (dummy fuse for USA market)

LED	Colour	Function
+5V	Green	When on, +5V power supply is present
+12V	Green	When on, +12V power supply is present
-12V	Green	When on, -12V power supply is present
+24VS	Green	When on, +24V power supply is present

INTERNAL CABLING WIRING DIAGRAM



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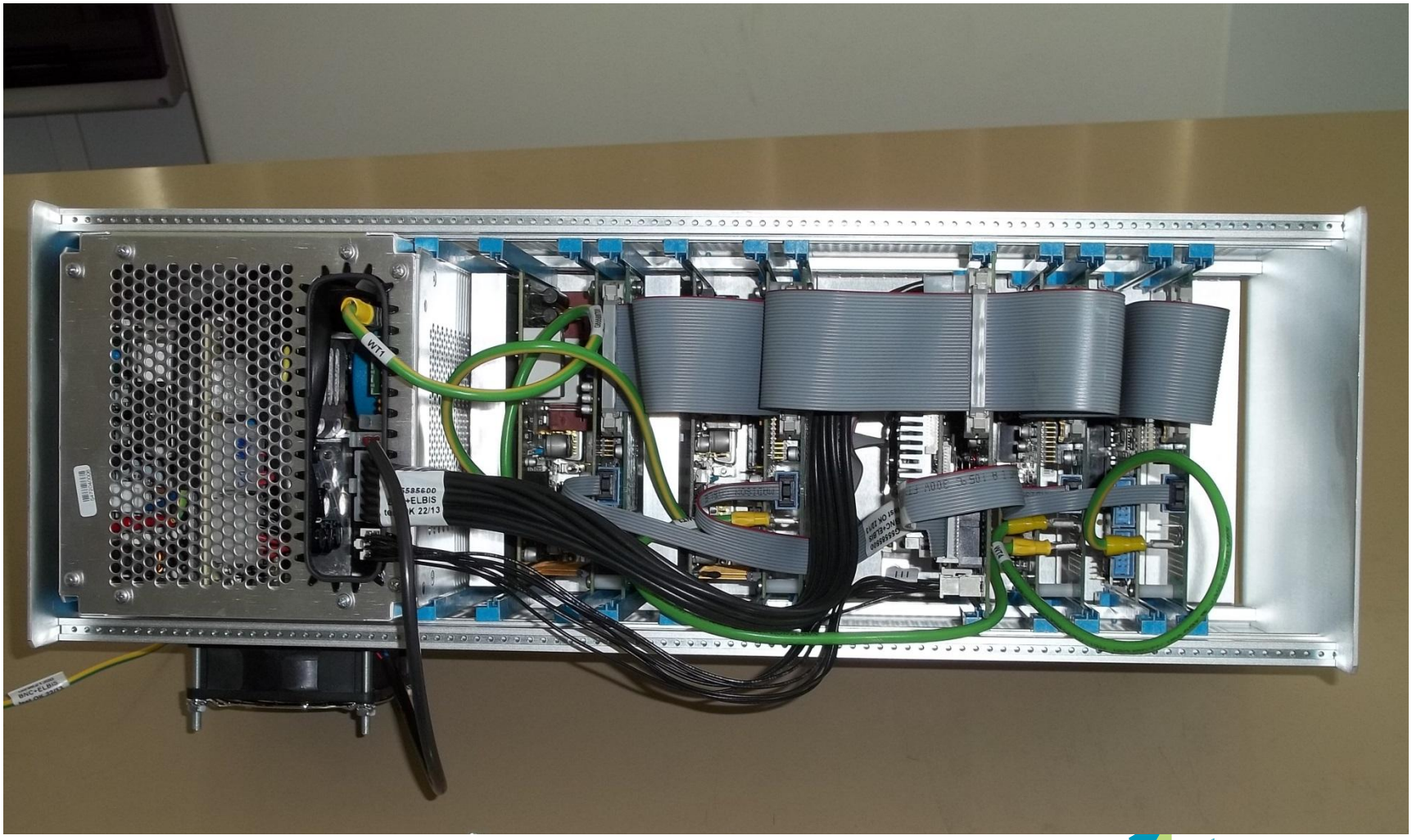
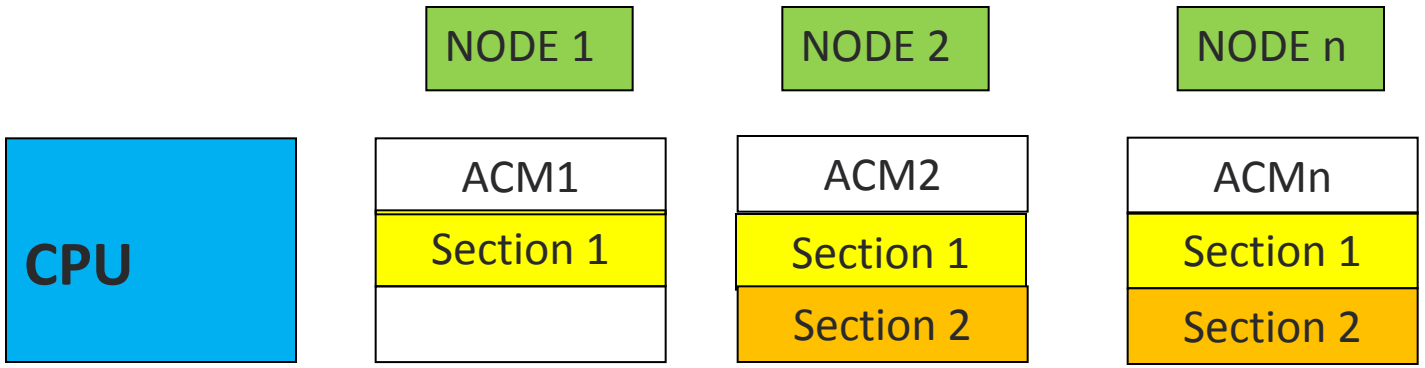
rear view of the DC241 rack



DC241
Hardware connection
Firmware configuration

	GLOBAL				TIGO			
	X	Y	Z		X	Y	Z	
ACM Module	ACM2	ACM1	ACM2		ACM2	ACM2	ACM1	H/W connection
ACM Node	2	1	2		2	2	1	F/W configuration
ACM Section	1	1	2		1	2	1	F/W configuration



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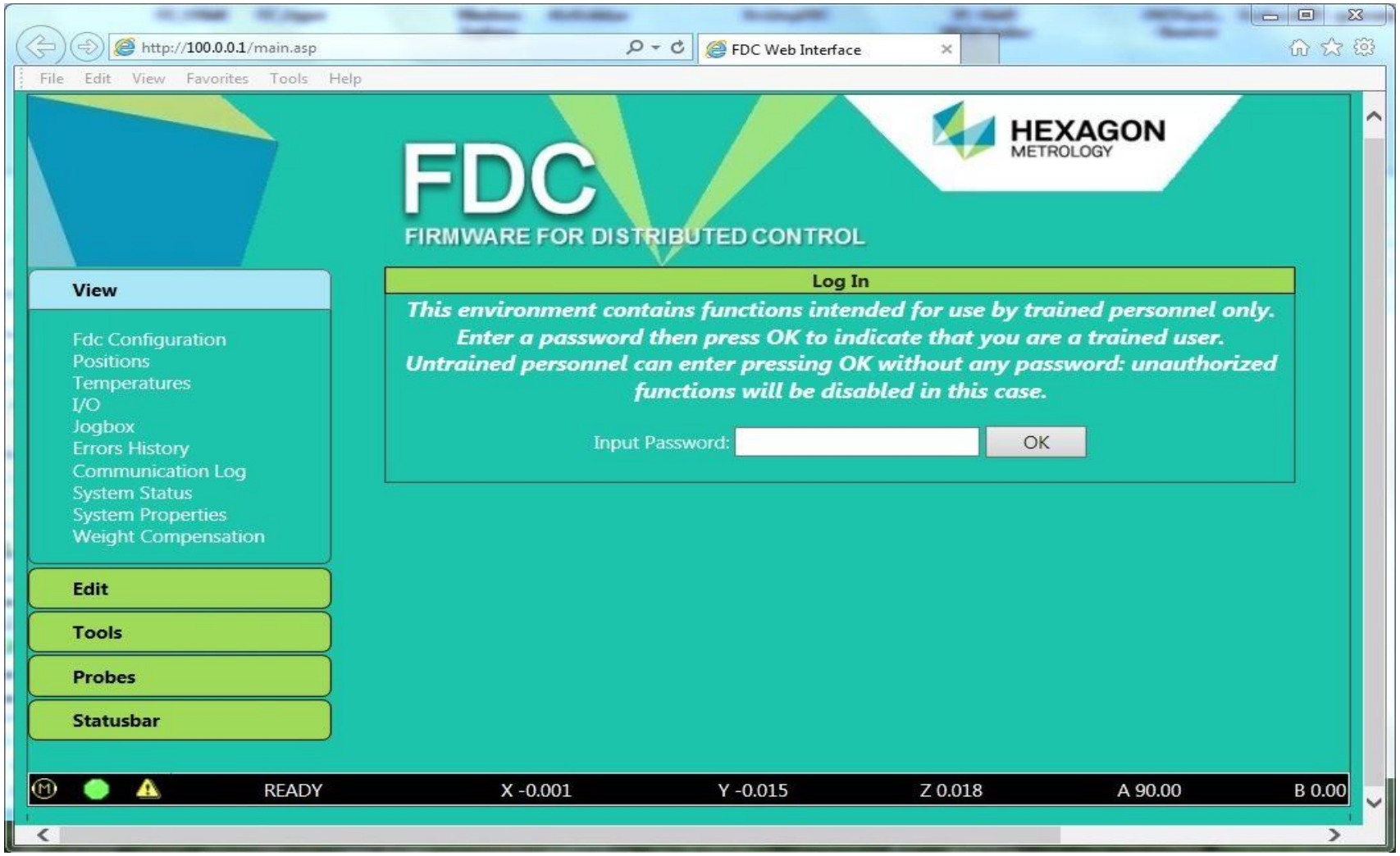
This controller runs FDC firmware



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