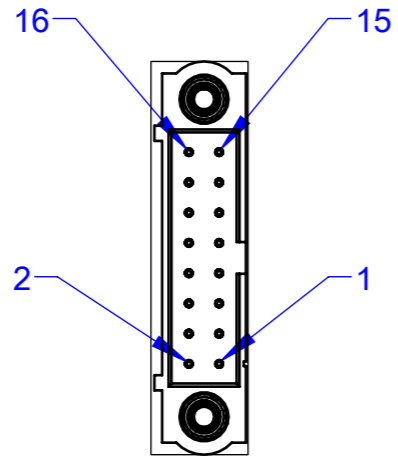


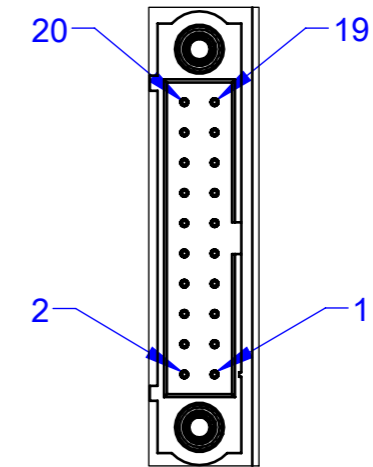
Mechanical ICD

Matière / Material		Norme Matière / Material Standard		Autre norme / Additional Standard	
Ref Traitement / Treatment ref.		Tolérances générales selon ISO2768-fH General tolerances according to ISO2768-fH		Nom de projet / Project Name	
Ref. Traitement Surface / Surface Treatment ref.		Ra = 1.6 max Ebavurage/Deburring : chamf. 45° 0.1 to 0.2 Rayon Raccord/Radius Curvature : 0.1 to 0.4 Battement/Run Out : 0.1mm Symétrie/Symmetry:0.5mm		CCBu20	
Dessine par / Drawn by		Obsolescence / Life Cycle		Désignation / Title	
cbouchet		R&D		ICD_Assy_CCBu20	
Vérifié par / Checked by		Date		Format	
tporchez		25/07/2016		A3	
Validé par / Approved by		Masse / Mass		Echelle/Scale	
srowe		250 g		1:1	
		Reference / Revision		Page	
		013706 / A.03-FINAL		1/2	



DÉTAIL B
ECHELLE 2 : 1

Actuator & Sensor Connector : HARWIN M80-5101642
to be connect with : HARWIN M80-4611642
HARWIN M80-4811642



DÉTAIL A
ECHELLE 2 : 1

Interface I/O Connector : HARWIN M80-5102042
to be connect with : HARWIN M80-4612042
HARWIN M80-4812042

Standard pinout table

Signal	Description	Comment	Pin N°
+130V	+130V rail for the push-pull configuration		13
PGND	Power ground	Power signal, current return from the actuators	9, 10, 11, 12, 14
VX	X axis voltage output	This voltage is varying, and controls the displacement on the X axis	15
VY	Y axis voltage output	This voltage is varying, and controls the displacement on the Y axis	16
1WIRE	1-wire bus for EEPROM memory	Optional: can be connected to a DS2431 EEPROM located on the mechanism.	7
T°C	Temperature signal from the integrated temperature probe	Optional: can be connected to a PT1000 temperature probe located on the mechanism.	8
SGY+	Positive middle node for the Y axis SG bridge	Voltage increases when the displacement on the Y axis increases.	5
SGY-	Negative middle node for the Y axis SG bridge	Voltage decreases when the displacement on the Y axis increases.	6
SGX+	Positive middle node for the X axis SG bridge	Voltage increases when the displacement on the X axis increases.	3
SGX-	Negative middle node for the X axis SG bridge	Voltage decreases when the displacement on the X axis increases.	4
VREF	+5V voltage reference for supplying the two SG bridges	This voltage supplies two full SG bridges of 350Ω. Max current is 30mA.	1
AGND	Analog ground, return for the low power signals	This is the reference for all the low power signals, both sensors and memory	2

Table 3-1: Connection to the mechanism, with integrated SG conditioning.

Pin out table with external +/-10V sensor signal option

Signal	Description	Comment	Pin N°
+130V	+130V rail for the push-pull configuration		13
PGND	Power ground	Power signal, current return from the actuators	9, 10, 11, 12, 14
VX	X axis voltage output	This voltage is varying, and controls the displacement on the X axis	15
VY	Y axis voltage output	This voltage is varying, and controls the displacement on the Y axis	16
1WIRE	1-wire bus for EEPROM memory	Optional: can be connected to a DS2431 EEPROM located on the mechanism.	7
T°C	Temperature signal from the integrated temperature probe	Optional: can be connected to a PT1000 temperature probe located on the mechanism.	8
+15V	+15V power supply	Max current is 20mA.	5
-15V	-15V power supply	Max current is 20mA.	6
SY	Sensor input related to the Y axis	±10V range	3
SX	Sensor input related to the X axis	±10V range	4
VREF	+5V voltage reference	Max current is 30mA.	1
AGND	Analog ground, return for the low power signals	This is the reference for all the low power signals, both sensors and memory	2

Table 3-2: Connection to the mechanism, with ±10V sensor input option.

Signal	Description	Comment	Pin N°
Vdc	CCBu20 power supply	+12V - +28V range, with maximum 1A continuous capability. Referenced to GND.	1,2
GND	CCBu20 ground	Reference of the CCBu20. Connected to mechanical ground.	3,4
RX+	Positive Receive RS422 signal	Digital input. Referenced to GND	5
RX-	Negative Receive RS422 signal	Digital input. Referenced to GND	6
TX+	Positive Transmit RS422 signal	Digital output. Referenced to GND	7
TX-	Negative Transmit RS422 signal	Digital output. Referenced to GND	8
Reserved		Do not connect	9
Reserved		Do not connect	10
Reserved		Do not connect	11
Reserved		Do not connect	12
Enable	Digital enable input	0-3.3 V input. Referenced to GND	13
Fault	Digital fault output	0-3.3V output. Referenced to GND	14
AGND	Analog ground	Reference for analog I/Os.	15
T°C	Mechanism analog temperature output	0-3.3V output. Only valid if PT1000 is used on the mechanism. Referenced to AGND.	16
AIX	Analog order input for X axis	±10V input. Referenced to AGND	17
AIY	Analog order input for Y axis	±10V input. Referenced to AGND	18
SX	Analog sensor output for X axis	±10V output. Referenced to AGND	19
SY	Analog sensor output for Y axis	±10V output. Referenced to AGND	20

Table 3-3: Connection with the supervisor.

Electrical ICD

Matiere / Material		Norme Matière / Material Standard		Autre norme / Additional Standard	
Ref Traitement / Treatment ref.		Tolérances générales selon ISO2768-FH General tolerances according to ISO2768-FH Ra = 1.6 max Ebavurage/Deburring : chamf. 45° 0.1 to 0.2 Rayon Raccord/Radius Curvature : 0.1 to 0.4 Battement/Run Out : 0.1mm Symétrie/Symmetry:0.5mm		Nom de projet / Project Name CCBu20	
Ref. Traitement Surface / Surface Treatment ref.		Désignation / Title ICD_Assy_CCBu20		Format A3	
Dessine par / Drawn by cbouchet		Obsolescence / Life Cycle R&D		Date 25/07/2016	
Vérifié par / Checked by tporchez		Masse / Mass 250 g		Reference / Revision 013706 / A.03-FINAL	
Validé par / Approved by srowe				Page 2/2	



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