

APPLICATIONS

- > Actuators position control
- > Active control of vibrations
- > Embedded solutions

KEY FEATURES

- > All-in-one piezo-driver and controller
- > 2 channels, with push-pull capability
- > PID control with stabilizing filters, tunable with GUI
- > Integrated SG conditioner or external sensor option

RELATED PRODUCT

- > Piezo actuators
- > Piezo mechanisms



SPECIFICATIONS

PARAMETER	TYPICAL VALUE	UNIT
> General		
Function	All-in-one piezo-driver and controller	
Number of control channels	2	
Integrated sensor conditioning	Strain Gages	
Digital communication	RS422	
Graphical User Interface	CTEC HDPM	
> Digital control		
Control strategy	Tunable PID + Stabilizing filters	
Stabilising filters	Tunable lowpass and notch	
List of stabilising filters configurations	No filter 2nd order lowpass filter 2nd order notch filter 2 × 2nd order notch filters 4th order notch filter	
Sampling rate	20	kSps
Digital resolution	16	bits
> Analog inputs		
Number of analog inputs	2	
Analog inputs Voltage range	-10 ... +10	V
Small signals bandwidth (-3 dB)	34	kHz

> Strain gages (SG) conditioner

Number of channels	2	
Reference output voltage	5	Vdc
Maximum reference output current	30	mA
Typical bridge impedance	350	Ohm
Output voltage range	-10 ... +10	V
Output impedance	20k	Ohm
Real gain	546.45	V/V
Small signals bandwidth (-3 dB)	>150	kHz

> Piezo driver

Number of channels	2	
Push-pull rail nominal voltage	130	V
Nominal output voltage range	-20 ... +150	V
Peak output current	0.2	A
RMS output current ⁽¹⁾	0.035	Arms
Ideal gain	20	V/V
Small signals bandwidth (-6 dB)	32	kHz

> Protections

Overtemperature		
Overload		
Missing connector		

> Power supply

Recommended supply voltage	+28	Vdc
Supply voltage range	+24 ... +28	Vdc
Supply current ⁽²⁾	0.2 ... 1	Arms
Power consumption	5 ... 28	W

MISCELLANEOUS

Mass	0.25	kg
Dimensions	91 × 77 × 35.2	mm3
Cooling	Natural convection + Heat-sinking surface	
Maximum dissipated power	28	W
Operating temperature range ⁽⁴⁾	-40 ... +70	°C
Storage temperature range	-40 ... +85	°C
Warm up time	15	min

INTERFACES

> Main connector	HARWIN M80-5102042
> Mechanism connector	HARWIN M80-5101642

ACCESSORIES

- | | |
|---|----------------------------------|
| > HDC45 Graphical User Interface | (Included) Windows compatibility |
| > AC/DC Power Supply | Optionnal |
| > Supervisor Harness | Optionnal |
| > Supervisor Interface Board | Optionnal |

EXTERNAL SENSOR OPTION ⁽⁵⁾

- | | |
|------------------------------|----------------------|
| > Input voltage range | -10 ... +10 V |
|------------------------------|----------------------|

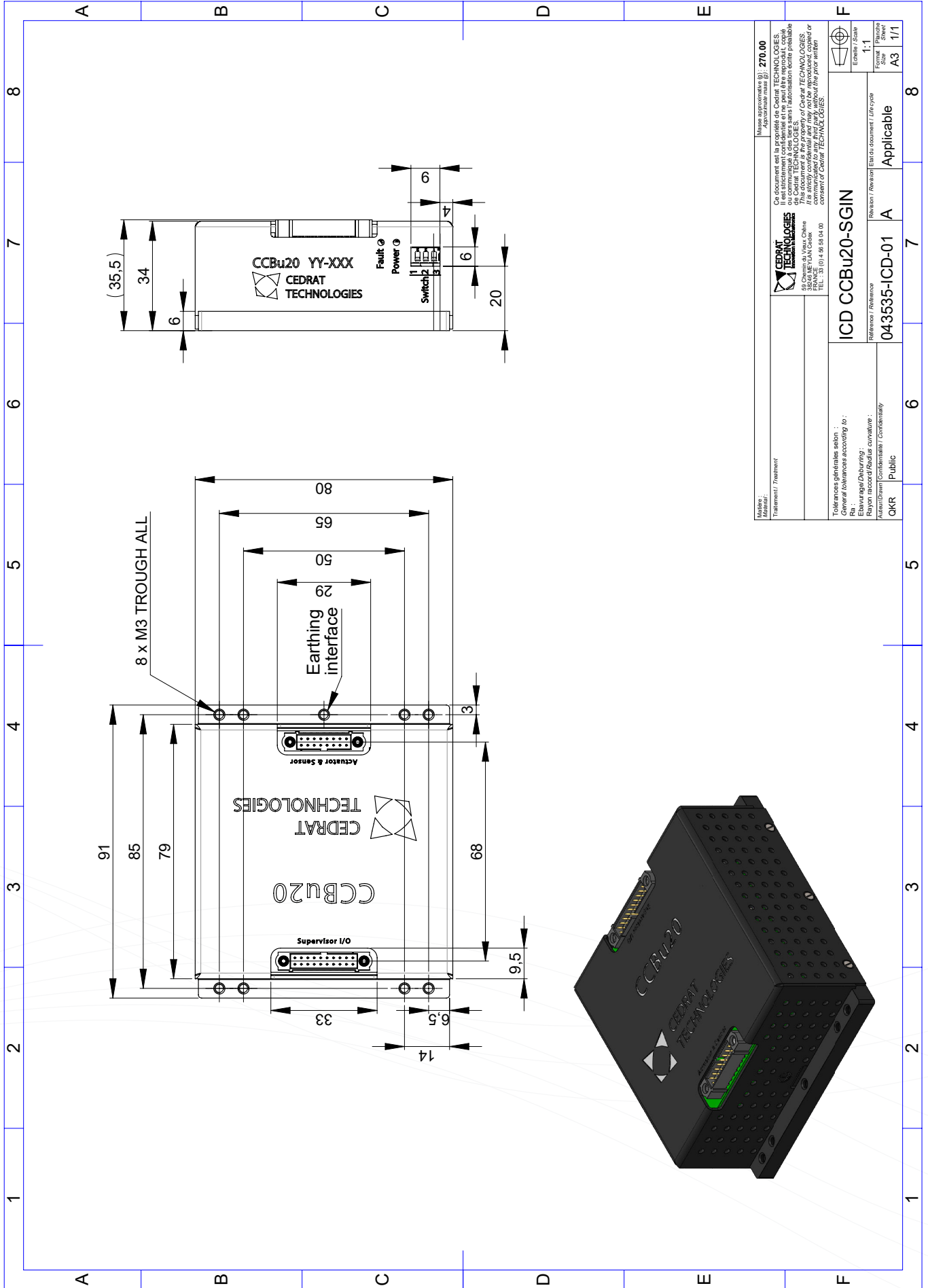
ANNOTATIONS

(1) At +28 Vdc supply. Lower output current has to be considered for lower supply voltages

(2) At recommended supply voltage

(4) Additional heatsink might be required

(5) Applies to both channels. Replaces the integrated SG conditioner



Matière / Treatment Masse approximative (g) / Approximate mass (g) : 270.00		Cedrat Technologies Ce document est la propriété de Cedrat Technologies. Toute réimpression ou communication sans autorisation écrite préalable est formellement interdite. This document is the property of Cedrat Technologies. Any reproduction, copying or distribution without the written consent of Cedrat Technologies is strictly prohibited.	
Référence / Reference : ICD CCBu20-SGIN		Echelle / Scale : 1:1 Format / Sheet : A3 / 1/1	
Tolérances générales selon : General tolerances according to : Révisé / Checked : Révisé accord / Rechecked : Approuvé / Approved :		Révision / Revision : Applicable	
OKR / Public		043535-ICD-01	