DSSIU-4-1U

Complete 4-channel system interface unit for ultra-stable, high precision fluxgate technology DS series current transducers.

Powers up to 4 x DS50 to DS2000 at the same time.

Features

- Compact 19” rack mount 1U height
- Current transducers’ output signals available via 4mm banana plugs (Only current output)
- Front LEDs indication of normal operation for each transducer and power LED for DSSIU-4-1U
- Universal autorange (100-240V AC 50/60Hz) AC input voltage or 120–370V DC input voltage.

CE

RoHS 2011/65/EU

UK CA

Specifications

Parameter	Symbol	Unit	Min	Typ.	Max	Comment
Mains input						
AC input voltage	V_{AC}	V_{rms}	85		264	Autoranging
AC nominal current	I_{AC}	I_{rms}			1.6A @ 115V 0.7A @ 230V	Full scale operation with 4 DS2000 and 3000A primary
Frequency	f	Hz	47		63	Autoranging
Transducer output port						
Supply voltage	U_{cc}		±14.75		±15.75	x4 channels
Ripple		mV_{rms}			15	
Environment and Mechanical						
Ambient operating temperature range	T_a	ºC	5		40	
Storage temperature range		ºC	-20		85	
Relative humidity		%	20		80	
Mass		Kg		4.6		
Size (W x H x D)		mm				483 x 44 x 271

Channel configuration

Each channel does have 3 connectors.

- Transducer (DSUB9) for connection to the transducer
- RED + (4mm Banana) is positive output from the measured current
- BLACK - (4mm Banana) is negative output from the measured current

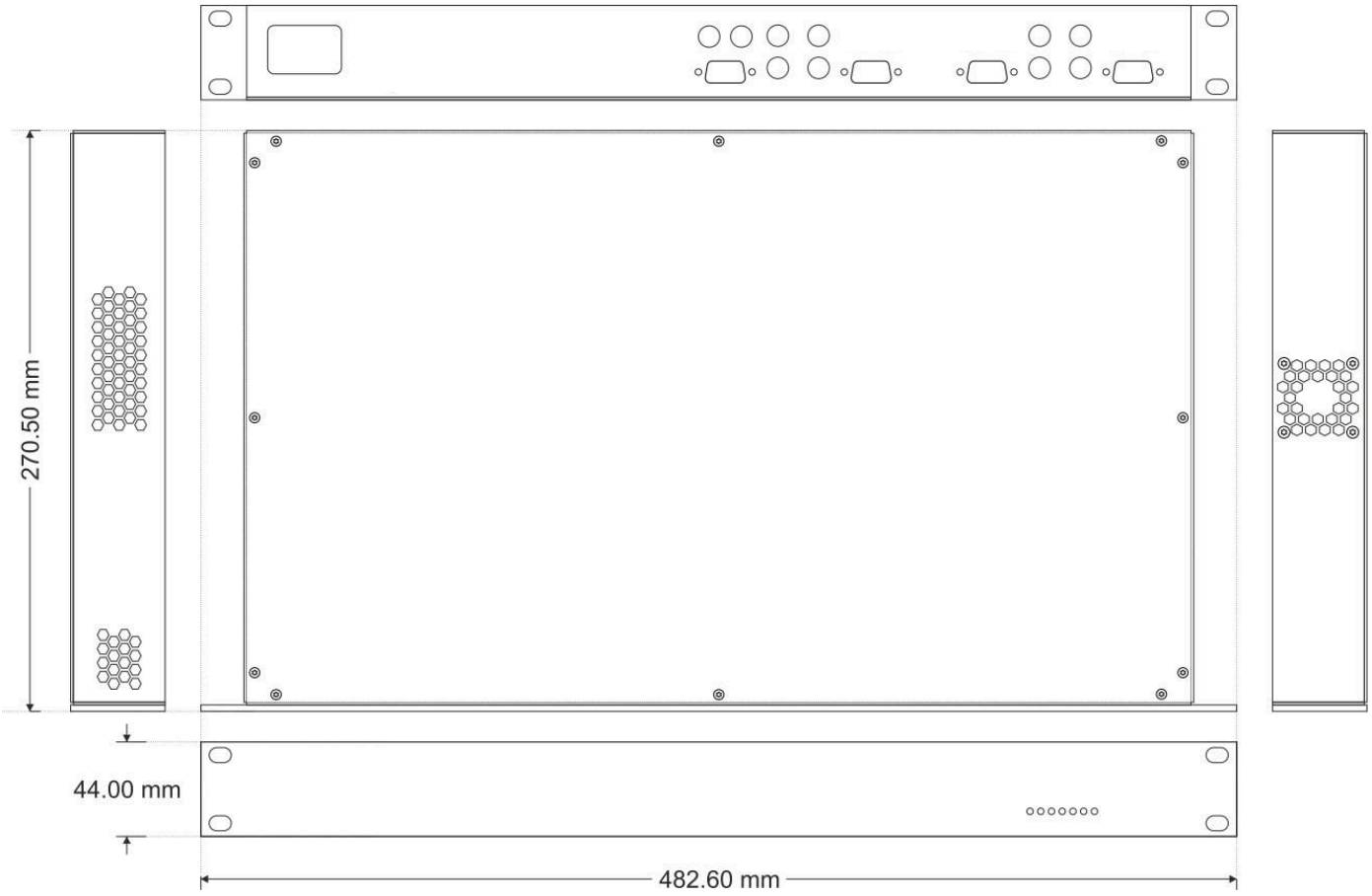
Current output configuration

The DSSIU-4-1U will send the measured current to the RED and BLACK 4mm banana jacks.
RED being connected to pin 6 on the transducer.
BLACK being connected to pin 1 on the transducer.

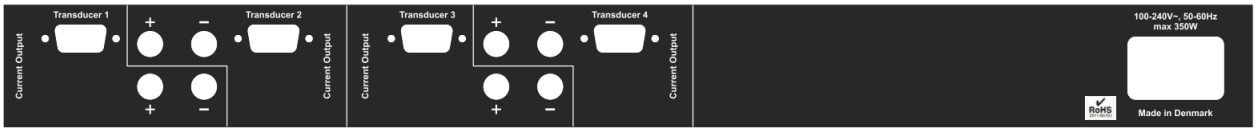
Environmental, safety and mechanical specifications

Parameter	Unit	Min	Typ	Max	Comment
Altitude	m			2000	
Usage					Designed for indoor use
Polution Degree				2	
Ambient operating temperature range	°C	5		40	
Storage temperature range	°C	0		60	
Relative humidity	%	20		80	Non-condensing
Mass	kg		5.0		
Connections	DSUB9 female for transducer connection 4mm banana (red and black) jacks for output of measured current from transducers 4mm banana (Yellow) jacks for connection of calibration current to transducer DSUB15 female for status information IEC inlet for mains connection				
Standards	IEC61326-1 EMC IEC61010-1:2010 3rd Edition				
External devices	Only connect Danisense transducers to the DSSIU-4-1U				
Cleaning	The unit should only be cleaned with a damp cloth. No detergent or chemicals should be used.				

Mechanical Dimensions



Back



Front

User Guide

Intended use:

The DSSIU-4-1U is designed to work with Danisense transducers with DSUB9 connection powered by +/-15V.

Instruction for use:

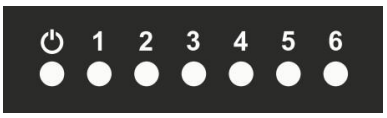
1. Do not power up the device before all cables are connected.
2. Only use cable provided by Danisense to ensure correct wiring and dimension of cable.
3. Ensure that it is easy to unplug the mains cord in case of system problems.
4. Place the primary conductor through the apperture of the transducer(s)
5. If the DSSIU-4-1U is intended for desk use, mount the rubber feet which are part of the package.
6. If the DSSIU-4-1U is intended for Rack mounting, use the screw kit for mounting and do not mount the rubber feet.
    - **It is mandatory to support the unit when rack mounted, either on the sides or backside.**
7. Connect a Danisense DSUB cable between DSSIU-4-1U and each sensor
8. Connect a low impedance amperemeter, measuring resistor or power analyzer on the secondary output (4mm red and black connectors)
9. Ensure that no calibration connectors are attached when measuring primary current. Always avoid to create a calibration short circuit, between + and — calibration connection.
10. There is a risk of electrical shock if an uninsulated busbar with high voltages is touching the metal enclosure of the transducer. Please ensure before powering up the system that no primary busbar can touch the metal enclosure.
11. When all connection are secured - connect mains power with the mains cable delivered. If other cables are used ensure that the cable has sufficint rating for operation.
12. Apply primary current

Safety Instructions:

DO NOT TRY TO DISASSEMBLE THE UNIT.
If the green transducer diode is not operating when the system is powered up, disconnect power and contact Danisense for further instruction.
If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired..

Indications:

When mains is applied the left light diode on the front under the power symbol will light green.



For each sensor channel connected a green light diode will light on the front if the connection is correct and the sensor is operating within normal range.

Declaration of Conformity

Danisense A/S

Malervej 10

DK-2630 Taastrup

Denmark

Declares that under our sole responsibility that this product is in conformity with the provisions of the following EC Directives, including all amendments, and with national legislation implementing these directives:

Directive 2014/30/EU

Directive 2014/35/EU

And that the following harmonized standards have been applied

EN 61010-1 (Third Edition):2010, EN 61010-1:2010/A1:2019

EN 61010-2-030:2021/A11:2021

EN 61326-1:2013

All DANISENSE products are manufactured in accordance with RoHS directive 2011/65/EU. Annex II of the RoHS directive was amended by directive 2015/863 in force since 2015, expanding the list of 6 restricted substances (Lead, Hexavalent Chromium, PBB, PBDE and Cadmium)

Danisense follows the provision in EN 63000:2018

Place		Date
Taastrup, Denmark	Henrik Elbæk	2022-07-14