

# DANISENSE

**TELONIC**  
TEST INSTRUMENTS & POWER SUPPLIES



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# Product Selection Guide

PRECISION - INNOVATION



## Standard Transducers

Family Name	Output Type	Options	Rated primary current Arms					
			<50	<100	<200	<400	<700	<1200
 <b>DT Series</b> Ø20.7 mm	Current	Standard	DT50ID	DT100ID	DT200ID			
 <b>DS Series</b> Ø27.6 mm	Current	Standard	DS50ID		DS200ID	DS300ID DS400ID	DS600ID	
	Current	Calibration Winding			DS200ID-CD100 DS200ID-CD1000		DS600ID-CD100	
	Voltage	Standard	DS50UB-1V DS50UB-10V		DS200UB-1V DS200UB-10V	DS300UB-1V DS300UB-10V DS400UB-1V DS400UB-10V	DS600UB-1V DS600UB-10V DS1000UB-10V	
 <b>DQ Series</b> Ø28.1 mm	Current	Standard					DQ500ID DQ600ID DQ600ID-P1300	
	Current	Programmable					DQ640ID-B	
 <b>DN Series</b> Ø41.2 mm	Current	Standard						DN1000ID
 <b>DM Series</b> Ø45 mm	Current	Standard						DM1200ID
	Current	Calibration Winding						DM1200ID-CD3000
	Voltage	Standard						DM1200UB-1V DM1200UB-10V

## Special Transducers

Family Name	Output Type	Rated primary current Arms		
		50	200	500
 <b>DP Series</b>	Current	DP50IP-B		
 <b>DC Series</b> Ø19.6 mm	Current		DC200IF	
 <b>DW Series</b> Ø24/30 mm	Voltage			DW500UB-2V

## High Current Transducers

Family Name	Output Type	Options	Rated primary current Arms				
			1400	2000	3600	5000	7000
 <b>DL Series</b> Ø68 mm	Current	Standard		DL2000ID			
	Current	Calibration Winding		DL2000ID-CD100 DL2000ID-CB100			
	Voltage	Standard	DL2000UB-10V	DL2000UB-1V			
 <b>DR Series</b> Ø140/150 mm	Current					DR5000IM	DR10000IM
	Voltage				DR5000UX-10V / 5000A	DR5000UX-10V / 7500A	DR10000UX-10V

## System Interface Units

Family Name	Height (w)	#Channels	Mains	Status Port	Product	Comment
 <b>DSSIU-1</b>	56 mm	1	100-240V AC	Yes	DSSIU-1	
 <b>DSSIU-4-1U</b>	1U (19")	4	100-240V AC	No	DSSIU-4-1U	
 <b>DSSIU-6-1U</b>	1U (19")	6	100-240V AC	Yes	DSSIU-6-1U	Calibration winding functionality
 <b>DSSIU-6-1U-V</b>	1U (19")	6	100-240V AC	Yes	DSSIU-6-1U-V	Calibration winding functionality Voltage output configurable

## Residual Current Monitors

Family Name	Output Type	Options	Rated primary current
			0 – 2A
 <b>RCM</b> Ø70 mm	Current	Standard	RCMH070IB+
	Current	Smart RCM	SRMH070IB+

## Cables

Family Name	Length(m)	Connection 1	Connection 2	Comment
 <b>DSUB2 - DSUB10</b>	2-10	Transducer	D55IU-4-1U or D55IU-6-1U	
 <b>DSUB15 - DSUB20</b>	15-20	Transducer	D55IU-4-1U or D55IU-6-1U	Not to be used with DL2000 at full specification – call or write us with your specific requirements
 <b>DS-UB-Power</b>	3	Voltage output Transducer	Own power source	Has 4 bananaplugs for lab power supply
 <b>DS-ID Power</b>	3	Current output Transducer	Own power source	Has 4 bananaplugs for lab power supply and 2 bananaplugs for current out
 <b>XLRm</b>	2	XLRm	3 Banana	Voltage
 <b>XLRm</b>	2	XLRm	2 Banana	Current

## ACCURATELY MEASURE DC / AC CURRENTS BETWEEN mA AND FULL SCALE;

### ■ PRODUCTS LINEUP / VOLTAGE OUTPUT

		DT50ID	DT100ID	DT200ID	DC200IF
Measuring range	$I_{PM}$	75 A	150 A	285 A	330 A
Nominal AC current	$I_{PN\_AC}$	50 A rms	100 A rms	200 A rms	200 A rms
Nominal DC current	$I_{PN\_DC}$	50 A	100 A	200 A	300 A
Overload capacity (non measured, 100ms)	$\hat{I}_{OL/0.1s}$	250 A	500 A	1000 A	1000 A
Nominal DC secondary current / voltage	$I_{SN\_DC}$	100 mA	100 mA	200 mA	300 mA
Primary / secondary ratio	(n1:n2)	1:500	1:1000	1:1000	1:1000
Linearity error	$\epsilon_L$	1.5 ppm	1 ppm	1 ppm	6 ppm
Initial Electric offset	$I_{OE} (\epsilon_C)$	100 ppm	50 ppm	25 ppm	15 ppm
DC Total Accuracy	acc $\epsilon$	102 ppm	51 ppm	26 ppm	21 ppm
Offset temperature coefficient	TCl <sub>OE</sub>	0.8 ppm/°C	0.3 ppm/°C	0.2 ppm/°C	2 ppm/°C
Offset stability with time	$I_{OE/time}$	0.1 ppm/month	0.1 ppm/month	0.1 ppm/month	10 ppm/month
Bandwidth (-3dB)	$f_{(-3dB)}$	2 MHz	2 MHz	2 MHz	200 kHz
Rated rms insulation voltage (**) - IEC61010-1 - EN50178	$U_b$ $U_b$	300 V 1000 V	300 V 1000 V	300 V 1000 V	300 V 600 V
Impulse withstand voltage (1.2/50 $\mu$ s)	$\hat{U}_W$	10.4 kV	10.4 kV	10.4 kV	10.4 kV
Operating temp. range	$T_a$	-40°C to +85°C			-40°C to +85°C
Power supplies (positive / negative current consumpt. excluding $I_s$ )	$U_c$	$\pm 15 V \pm 5\%$ (+40 mA / -35 mA)			$\pm 15 V \pm 5\%$ (+35 mA / -35 mA)
Diameter of aperture	$\phi$	20.7 mm			19.65 mm
External dimensions (approximate)	WxHxD	76 x 64.5 x 35 mm			93.5 x 61.5 x 40 mm
Connection		DSUB 9-pin			6.3x0.8 mm fastons
Calibration (Test) winding		None	None	None	None
Weight (approximate)	M	150 g			250 g

Data are for informative purposes only, please consult individual datasheets on Danisense website for most up-to-date values  
(\*\*) reinforced insulation, OV Cat III, pollution degree 2

## DESIGNED FOR MEDICAL DEVICES; PARTICLE ACCELERATORS; POWER MEASUREMENTS

PLEASE CONSULT THE PRODUCTS MANUAL ON DANISENSE WEBSITE BEFORE USAGE

DS50ID	DS200ID	DS300ID	DS400ID	DQ500ID	DS600ID DQ600ID
150 A	370 A	500 A	600 A	800 A	1000 A
50 A rms	200 A rms	300 A rms	400 A rms	500 A rms	600 A rms
75 A	300 A	450 A	600 A	750 A	900 A
1500 A	1500 A	1500 A	3000 A	4500 A	4500 A
150 mA	600 mA	450 mA	300 mA	428.57 mA	600 mA
1:500	1:500	1:1000	1:2000	1:1750	1:1500
1 ppm	1 ppm	1 ppm	1 ppm	1 ppm	1 ppm
60 ppm	15 ppm	14 ppm	9 ppm	10 ppm	7 ppm
61 ppm	16 ppm	15 ppm	10 ppm	11 ppm	9 ppm
0.4 ppm/°C	0.1 ppm/°C	0.1 ppm/°C	0.1 ppm/°C	0.1 ppm/°C	0.1 ppm/°C
0.4 ppm/month	0.1 ppm/month	0.1 ppm/month	0.1 ppm/month	0.1 ppm/month	0.1 ppm/month
1 MHz	1 MHz	650 kHz	300 kHz	300 kHz	450 kHz
300 V 1000 V	300 V 1000 V	300 V 1000 V	300 V 1000 V	300 V 600 V	300 V 1000 V
10.4 kV	10.4 kV	10.4 kV	10.4 kV	10.4 kV	10.4 kV
-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
±15 V±5% (+104 mA/-96 mA)	±15 V±5% (+104 mA/-96 mA)	±15 V±5% (+104 mA/-96 mA)	±15 V±5% (+104 mA/-96 mA)	±15 V±5% (+104 mA/-96 mA)	±15 V±5% (+105 mA/-98 mA)
27.6 mm					
DS (121 x 107.5x 49 mm) / DQ (104 x 106 x 52 mm)					
DSUB 9-pin					
Optional	Optional	Optional	Optional	Optional	Optional
600 g					

## ACCURATELY MEASURE DC / AC CURRENTS BETWEEN mA AND FULL SCALE;

### ■ PRODUCTS LINEUP / VOLTAGE OUTPUT

		DN1000ID	DM1200ID	DL2000ID
Measuring range	$I_{PM}$	1500 A	1800 A	3000 A
Nominal AC current	$I_{PN\_AC}$	1000 A rms	1200 A rms	2000 A rms
Nominal DC current	$I_{PN\_DC}$	1000 A	1500 A	3000 A
Overload capacity (non measured, 100ms)	$\hat{I}_{OL/0.1s}$	5000 A	5000 A	10000 A
Nominal DC secondary current / voltage	$I_{SN\_DC}$	667 mA	1000 mA	2000 mA
Primary / secondary ratio	(n1:n2)	1:5000	1:1500	1:1500
Linearity error	$\epsilon_L$	1 ppm	1 ppm	1 ppm
Initial Electric offset	$I_{OE} (\epsilon_C)$	5 ppm	5 ppm	6 ppm
DC Total Accuracy	acc $\epsilon$	7 ppm	6 ppm	7 ppm
Offset temperature coefficient	TCl $_{OE}$	0.1 ppm/°C	0.1 ppm/°C	0.1 ppm/°C
Offset stability with time	$I_{OE/time}$	0.1 ppm/month	0.1 ppm/month	0.1 ppm/month
Bandwidth (-3dB)	$f_{(-3dB)}$	400 kHz	400 kHz	300 kHz
Rated rms insulation voltage (**) - IEC61010-1 - EN50178	$U_b$ $U_b$	600 V 1000 V	600 V 1000 V	1000 V 1000 V
Impulse withstand voltage (1.2/50 $\mu$ s)	$\hat{U}_W$	10.4 kV	10.4 kV	26.3 kV
Operating temp. range	Ta	-40°C to +85°C	-40°C to +85°C	-40°C to +65°C
Power supplies (positive / negative current consumpt. excluding Is)	$U_C$	$\pm 15 V \pm 5\%$ (+/-81 mA)	$\pm 15 V \pm 5\%$ (+145 mA/-135 mA)	$\pm 15 V \pm 5\%$ (+185 mA/-170 mA)
Diameter of aperture	$\phi$	41.2 mm	45.0 mm	68.0 mm
External dimensions (approximate)	WxHxD	132 x 112 x 44 mm	179 x 174 x 58 mm	240 x 230 x 87 mm
Connection		DSUB 9-pin	DSUB 9-pin	DSUB 9-pin
Calibration (Test) winding		Optional	Optional	Optional
Weight (approximate)	M	800 g	1.8 kg	5.5 kg

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(\*) rating configurable by PCB pattern layout for DP model and by DSUB21 connector for DQ model

(\*\*) reinforced insulation, OV Cat III, pollution degree 2

## DESIGNED FOR MEDICAL DEVICES; PARTICLE ACCELERATORS; POWER MEASUREMENTS

PLEASE CONSULT THE PRODUCTS MANUAL ON DANISENSE WEBSITE BEFORE USAGE

DR5000IM	DR10000IM	DW500UB-2V	DP50IP-B configurable (*)	DQ640ID-B configurable (*)
8000 A	11000 A	750 A	18/36/72 A	640 A
5000 A rms	7000 A rms	500 A rms	12.5/25/50 A rms	28 A to 452 A rms (step 14 A rms)
8000 A	10000 A	500 A	12.5/25/50 A	40 A to 640 A (step 20 A)
20000 A	20000 A	1500 A	25/50/100 A	4500 A
3200 mA	4000 mA	2 V	50 mA	1000 mA
1:2500	1:2500	4 mV/A	(12.5 A/25 A/50 A) 1:250/500/1000	40 A to 640 A step 20 1:40 to 1:640
1 ppm	1 ppm	15 ppm	10 ppm	3 ppm
3 ppm	3 ppm	15 ppm	100 ppm	10 ppm
4 ppm	4 ppm	80 ppm	110 ppm	13 ppm
0.1 ppm/°C	0.1 ppm/°C	0.2 (2) ppm/°C	1 ppm/°C	0.1 ppm/°C
0.1 ppm/month	0.1 ppm/month	0.3 ppm/month	1 ppm/month	0.1 ppm/month
80 kHz	80 kHz	10 MHz	1 MHz	300 kHz
1000 V 1000 V	1000 V 1000 V	600 V 1000 V	300 V (OV cat. II)	300 V 600 V
43.5 kV	43.5 kV	10.4 kV	4.4 kV	10.4 kV
head 0 to +70°C / controller 0 to +45°C		-40°C to +45°C	0°C to +55°C	0°C to +55°C
AC 100 ~ 240 V - 50/60 Hz or DC 127 V ~ 417 V		AC 100 ~ 240 V - 50/60 Hz (0.3 A)	±15 V±5% (+42 mA/-28 mA)	±15 V±5% (+105 mA/-96 mA)
150.0 mm	140.0 mm	25.0 mm	NR	28.1 mm
head 420 x 325 x 122 mm controller 483 x 88.1 x 241 mm		Head 128x92x42 mm Box 194x110x50 mm	65 x 60 x 32 mm	104 x 106 x 49 mm
Banana plugs	Banana plugs	BNC	(2x8 pins)	DSUB 9-pin
Optional	Optional	None	None	100 turns/0.1 A
head: 17 kg (DR10000/19 kg); controller: 6 kg		1.5 kg	250 g	600 g

■ PRODUCTS LINEUP / VOLTAGE OUTPUT

		DS50UB-10V	DS200UB-10V	DS300UB-10V
Measuring range	$I_{PM}$	55 A	220 A	330 A
Nominal AC current	$I_{PN\_AC}$	36 A rms	140 A rms	210 A rms
Nominal DC current	$I_{PN\_DC}$	50 A	200 A	300 A
Overload capacity (non measured, 100ms)	$\hat{I}_{OL/0.1s}$	500 A	500 A	1500 A
Nominal DC secondary output voltage	$V_{SN\_DC}$	10 V	10 V	10 V
Primary / secondary conversion ratio	Conv.Ratio	200 mV/A	50 mV/A	33,3 mV/A
DC Total Accuracy	acc $\epsilon$	145 ppm	82 ppm	45 ppm
Bandwidth (-3dB)	$f_{(-3dB)}$	500 kHz	500 kHz	500 kHz
Linearity error	$\epsilon_L$	5 ppm	10 ppm	15 ppm
<b>Offset error</b>				
Initial	$V_{OE}$	90 ppm	22 ppm	10 ppm
Versus temperature	TCV <sub>OE</sub>	1 ppm/°C	0.25 ppm/°C	1 ppm/°C
Versus time	$I_{OE/time}$	0.2 ppm/month	0.2 ppm/month	0.3 ppm/month
<b>Ratio error</b>				
Initial	$\epsilon_C$	50 ppm	50 ppm	5 ppm
Versus temperature	TC $\epsilon_C$	3 ppm/°C	3 ppm/°C	2 ppm/°C
Versus time	$\epsilon_{C/time}$	10 ppm/month	10 ppm/month	3 ppm/month
Rated rms insulation voltage (**) IEC61010-1 EN50178	$U_b$ $U_b$	300 V 1000 V	300 V 1000 V	300 V 1000 V
Operating temp. range	Ta	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Power supplies	Uc	±15 V±5%	±15 V±5%	±15 V±5%
Diameter of aperture	$\phi$	27.6 mm	27.6 mm	27.6 mm
External dimensions	WxHxD	121 x 107.5 x 49 mm		
Weight	M	600 g		
Output connector		BNC		
Calibration (Test) winding		Optional	Optional	Optional

<b>DS400UB-10V</b>	<b>DS600UB-10V</b>	<b>DS1000UB-10V</b>	<b>DM1200UB-10V</b>	<b>DL2000UB-10V</b>
440 A	660 A	1100 A	1320 A	2200 A
280 A rms	424 A rms	700 A rms	850 A rms	1414 A rms
400 A	600 A	1000 A	1200 A	2000 A
3000 A	1500 A	1500 A	1500 A	10000 A
10 V	10 V	10 V	10 V	10 V
25 mV/A	16.67 mV/A	10 mV/A	8.33 mV/A	5 mV/A
75 ppm	70 ppm	45 ppm	75 ppm	108 ppm
500 kHz	300 kHz	300 kHz	300 kHz	300 kHz
10 ppm	10 ppm	35 ppm	15 ppm	30 ppm
15 ppm	10 ppm	10 ppm	10 ppm	8 ppm
0.2 ppm/°C	0.2 ppm/°C	2 ppm/°C	0.2 ppm/°C	0.1 ppm/°C
0.2 ppm/month	0.2 ppm/month	0.3 ppm/month	0.2 ppm/month	0.1 ppm/month
50 ppm	50 ppm	5 ppm	50 ppm	100 ppm
3 ppm/°C	3 ppm/°C	1 ppm/°C	3 ppm/°C	1 ppm/°C
10 ppm/month	10 ppm/month	5 ppm/month	10 ppm/month	5 ppm/month
300 V 1000 V	300 V 1000 V	300 V 600 V	600 V 1000 V	1000 V 1000 V
-40°C to +85°C	-40°C to +85°C	-40°C to +55°C	-40°C to +65°C	-40°C to +65°C
±15 V±5%	±15 V±5%	±15 V±5%		±15 V±5%
27.6 mm	27.6 mm	27.6 mm	27.6 mm	150.0 mm
121 x 107.5 x 49 mm			179 x 174 x 58 mm - Weight 1.8 kg	240 x 230 x 87 mm - Weight 6.5 kg
600 g				
BNC				
Optional	Optional	Optional	Optional	Optional

■ PRODUCTS LINEUP / VOLTAGE OUTPUT

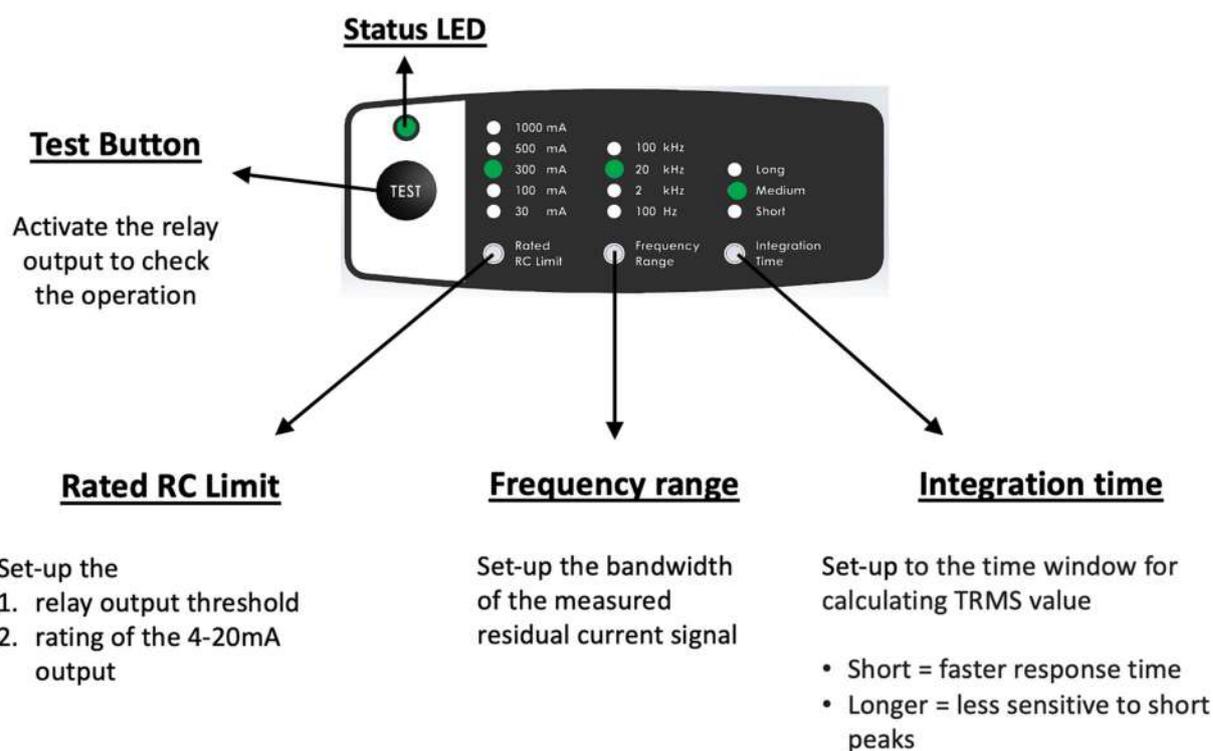
		DR5000UX-10V/5000A	DR5000UX-10V/7500A
Measuring range	$I_{PM}$	5500 A	8000 A
Nominal AC current	$I_{PN\_AC}$	3600 A rms	5000 A rms
Nominal DC current	$I_{PN\_DC}$	5000 A	7500 A
Overload capacity (non measured, 100ms)	$\hat{I}_{OL/0.1s}$	20000 A	20000 A
Nominal DC secondary output voltage	$V_{SN\_DC}$	10 V	10 V
Primary / secondary conversion ratio	Conv.Rat io	2 mV/A	1.33 mV/A
DC Total Accuracy	acc $\epsilon$	23 ppm	44 ppm
Bandwidth (-3dB)	$f_{(-3dB)}$	100kHz	80 kHz
Linearity error	$\epsilon_L$	7 ppm	7 ppm
Offset error			
Initial	$V_{OE}$	11 ppm	7 ppm
Versus temperature	$TCV_{OE}$	0.3 ppm/°C	0.3 ppm/°C
Versus time	$I_{OE/time}$	0.1 ppm/month	0.1 ppm/month
Ratio error			
Initial	$\epsilon_C$	5 ppm	30 ppm
Versus temperature	$TC\epsilon_C$	1.5 ppm/°C	1.5 ppm/°C
Versus time	$\epsilon_C/time$	20 ppm/month	10 ppm/month
Rated rms insulation voltage (**) IEC61010-1 EN50178	$U_b$ $U_b$	3000 V 3000 V	1000 V 1000 V
Operating temp. range	$T_a$	Head : 0 to +60°C controller : 0 to +45°C	
Power supplies	$U_c$	AC 100 ~ 240 V - 50/60 Hz or DC 127 V ~ 417 V	
Diameter of aperture	$\phi$	150.0 mm	
External dimensions	WxHxD	head appr. 420 x 325 x 122 mm controller appr. 483 x 88 x 241 mm	
Weight	M	head : 17 kg cotroller : 6 kg	
Output connector		mini XLR	
Calibration (Test) winding		Optional	Optional

DR10000UX-10V	DS50UB-1V	DS200UB-1V	DS300UB-1V	DS400UB-1V
11000 A	100 A	330 A	450 A	600 A
7000 A rms	50 A rms	200 A rms	300 A rms	400 A rms
10000 A	75 A	300 A	300 A	600 A
35000 A	1500 A	1500 A	1500 A	1500 A
10 V	1.5 V	1.5 V	1.5 V	1.5 V
1 mV/A	20 mV/A	5 mV/A	3.33 mV/A	2.5 mV/A
23 ppm	121 ppm	60 ppm	170 ppm	55 ppm
100 kHz	500 kHz	500 kHz	500 kHz	300 kHz
7 ppm	24 ppm	40 ppm	15 ppm	15 ppm
11 ppm	72 ppm	20 ppm	10 ppm	10 ppm
0.3 ppm/°C	1 ppm/°C	0.1 ppm/°C	1 ppm/°C	1 ppm/°C
0.1 ppm/month	1 ppm/month	0.3 ppm/month	0.3 ppm/month	0.3 ppm/month
5 ppm	25 ppm	5 ppm	5 ppm	5 ppm
1.5 ppm/°C	3 ppm/°C	1 ppm/°C	2 ppm/°C	2 ppm/°C
20 ppm/month	0.3 ppm/month	5 ppm/month	3 ppm/month	3 ppm/month
3000 V 3000 V	300 V 600 V	300 V 600 V	300 V 1000 V	300 V 600 V
Head : 0 to +50°C controller : 0 to +45°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
AC 90 ~ 295 V - 50/60 Hz or DC 127 V ~ 417 V	±15 V±5%	±15 V±5%	±15 V±5%	±15 V±5%
140.0 mm	27.6 mm	27.6 mm	27.6 mm	27.6 mm
head appr. 420 x 325 x 122 mm controller appr. 483 x 88 x 241 mm		appr. 122 x 108 x 45 mm		
head : 19 kg cotroller : 6 kg		appr. 600 g		
mini XLR		BNC		
Optional	Optional	Optional	Optional	Optional

■ PRODUCTS LINEUP / VOLTAGE OUTPUT

		DS600UB-1V	DL2000UB-1V
Measuring range	$I_{PM}$	950 A	3000 A
Nominal AC current	$I_{PN\_AC}$	600 A rms	2000 A rms
Nominal DC current	$I_{PN\_DC}$	900 A	3000 A
Overload capacity (non measured, 100ms)	$\hat{I}_{OL/0.1s}$	1500 A	10000 A
Nominal DC secondary output voltage	$V_{SN\_DC}$	1.5 V	1.5 V
Primary / secondary conversion ratio	Conv.Ratio	1.67 mV/A	0.5 mV/A
DC Total Accuracy	acc $\epsilon$	55 ppm	106 ppm
Bandwidth (-3dB)	$f_{(-3dB)}$	300 kHz	300 kHz
Linearity error	$\epsilon_L$	40 ppm	80 ppm
Offset error			
Initial	$V_{OE}$	10 ppm	6 ppm
Versus temperature	$TCV_{OE}$	0.1 ppm/°C	0.1 ppm/°C
Versus time	$I_{OE/time}$	0.3 ppm/month	0.1 ppm/month
Ratio error			
Initial	$\epsilon_C$	5 ppm	100 ppm
Versus temperature	$TC\epsilon_C$	1 ppm/°C	1 ppm/°C
Versus time	$\epsilon_{C/time}$	5 ppm/month	5 ppm/month
Rated rms insulation voltage (**) IEC61010-1 EN50178	$U_b$ $U_b$	300 V 600 V	1000 V 1000 V
Operating temp. range	$T_a$	-40°C to +85°C	-40°C to +65°C
Power supplies	$U_c$	±15 V±5%	±15 V±5%
Diameter of aperture	$\phi$	27.6 mm	68.0 mm
External dimensions	WxHxD	apprx. 122 x 108 x 45 mm	apprx. 240 x 230 x 82 mm
Weight	M	apprx. 600 g	apprx. 5.5 kg
Output connector		BNC	
Calibration (Test) winding		Optional	Optional

	RCMH070IB+	SRCMH070IB+
Measuring range 0-2 A	Yes	Yes
TRMS value as a 4-20 mA DC output	Yes	Yes
The auto setup will propose an appropriate frequency range and integration time	Yes	Yes
TRMS in frequency ranges	Yes	Yes
Scope for residual current	No	Yes
Residual current FFT	No	Yes
Remote setting of rated RC limit, frequency range and integration time	No	Yes
TRMS log / Relay status log / Data export	No	Yes



# ACCURATELY MEASURE DC / AC CURRENTS BETWEEN mA AND FULL SCALE;

## DEFINITION OF PARAMETERS

Parameter	Symbol	Unit	Definition
Nominal primary AC current	$I_{PN\ AC}$	Arms	Rated AC current for continuous operation
Nominal primary DC current	$I_{PN\ DC}$	A	Rated DC current for continuous operation
Measuring range	$\hat{I}_{PM}$	A	Max DC current (or peak value) that can be accurately measured
Overload capacity	$\hat{I}_{OL}$	A	Max primary current without damage. Device will be saturated during the overload period.
Nominal secondary current	$I_{SN}$	mA	Value of the device's output signal when a current of nominal value flows in a conductor placed inside the device's center hole
Primary / secondary ratio	$n1:n2$	none	e.g. 1:1500 means if primary current is 600A, then secondary current (device's output signal) is $600A / 1500 = 0.4A$ or 400mA
Measuring resistance	$R_M$	$\Omega$	The device's output current must be "closed" to enable the flux compensation. <div style="text-align: center;"> </div>
Linearity error	$\epsilon_L$	ppm $\mu A$	Maximum deviation or error (in ppm or in absolute $\mu A$ value) between the output signal of the current transducer at any given point between 0 and $\pm \hat{I}_{PM}$ and the linear regression line obtained from a series of actual output values from $-\hat{I}_{PM}$ to $+\hat{I}_{PM}$ measured at regular current value intervals between these two extremes. <div style="text-align: center;"> </div>
Offset current (including earth field)	$I_{OE}$	ppm $\mu A$	Value of the device's output signal when there is no primary current in the device's center hole <div style="text-align: center;"> </div>

# DESIGNED FOR MEDICAL DEVICES; PARTICLE ACCELERATORS; POWER MEASUREMENTS

## PRODUCTS LINEUP / 4 (6)-CHANNEL POWER SUPPLIES INTERFACE UNITS, ACCESSORIES

### ▲ Power up to 4 (or 6) transducers from 50 to 2000 models



DSSIU-4-1U / DSSIU-6-1U  
Power Supplies Interface Units



DSUB25/5/10/15/20 (m)

#### Features DSSIU-4-1U, DSSIU-6-1U

- 19" rack-mount, 1U height
- Output voltage:  $\pm 15V$  (per channel)
- Input voltage: AC 100V to 240V, 47Hz to 63Hz
- D-SUB 9 pins for transducer connection
- 2 x 4mm-banana jacks for current outputs

#### Features DSSIU-6

- 2 x 4mm-banana jacks for test coil (cal. current)
- Option: 1V or 10V voltage output modules VOM
- Mini Amphenol XLR connector for voltage outputs

#### Back panel lay-out



DSSIU-4-1U (4-channel)

Current output access via Red/Black banana plugs



DSSIU-6-1U (6-channel,  
I outputs, calibration coils  
terminals)

Test coils access via two yellow banana



DSSIU-6-1U (6-channel, V  
outputs or mixed V and I  
outputs, calibration coils)



### ▲ Factory mounted voltage output modules (VOM) 1V and 10V, for use with DSSIU-6-1U model



- VOM 400mA/1V
- VOM 400mA/10V
- VOM 1.333A/1V
- VOM 1.333A/10V

#### Examples of VOM combinations

- DS200ID  $\Rightarrow$  output ratio: 400mA @200A
- DS200ID + VOM 400mA/1V  $\Rightarrow$  output ratio: 1V@200A
- DL2000ID  $\Rightarrow$  output ratio: 1.333A @2000A
- DL2000ID + VOM 1.333A/10V  $\Rightarrow$  output ratio: 10V@2000A

### ▲ Cables accessories



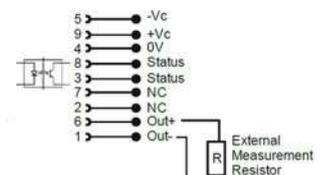
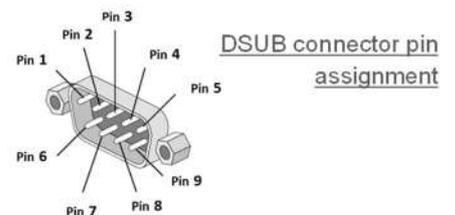
DSUB (2/5/10/15/20m) cable for easy connection between DSSIU-4-1U or DSSIU-6-1U power supplies and current transducers



XLRm/Banana Voltage Cable (2m) for access to voltage output at the back panel of DSSIU-6-1U (with full shielding)

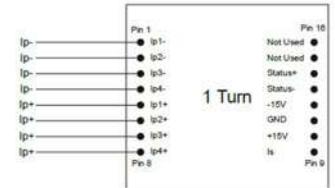
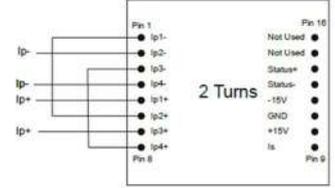
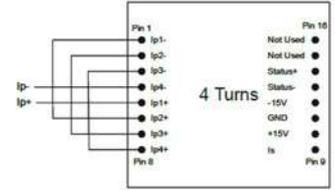
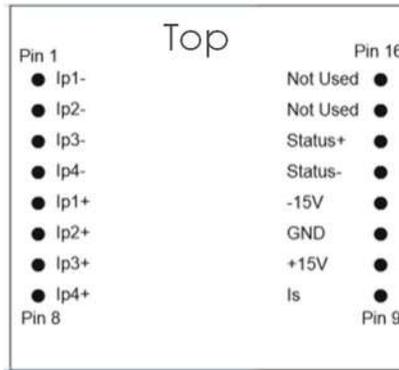
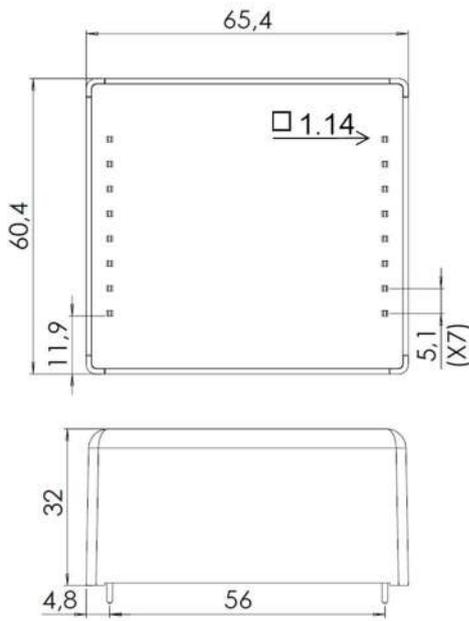


XLRm/Banana Current Cable (2m) for access to current output at the back panel of DSSIU-6-1U

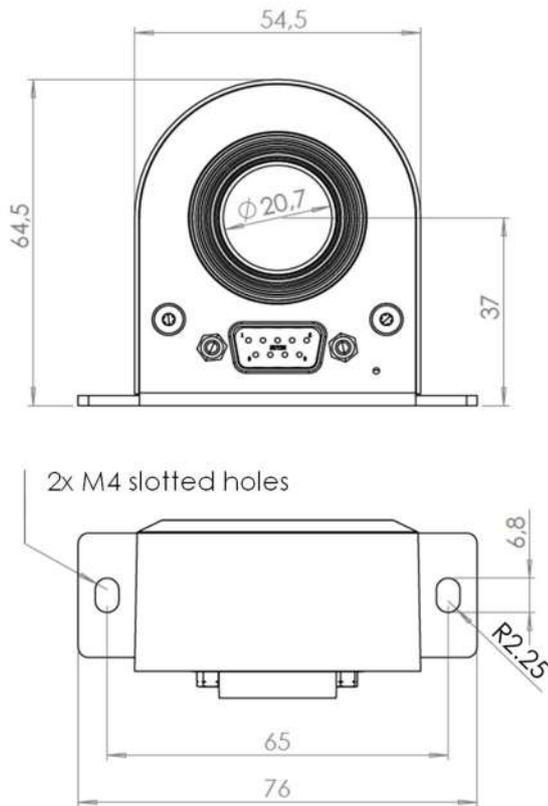


**■ DIMENSIONAL DRAWINGS**

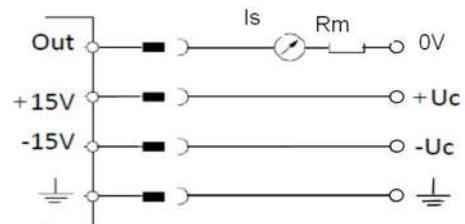
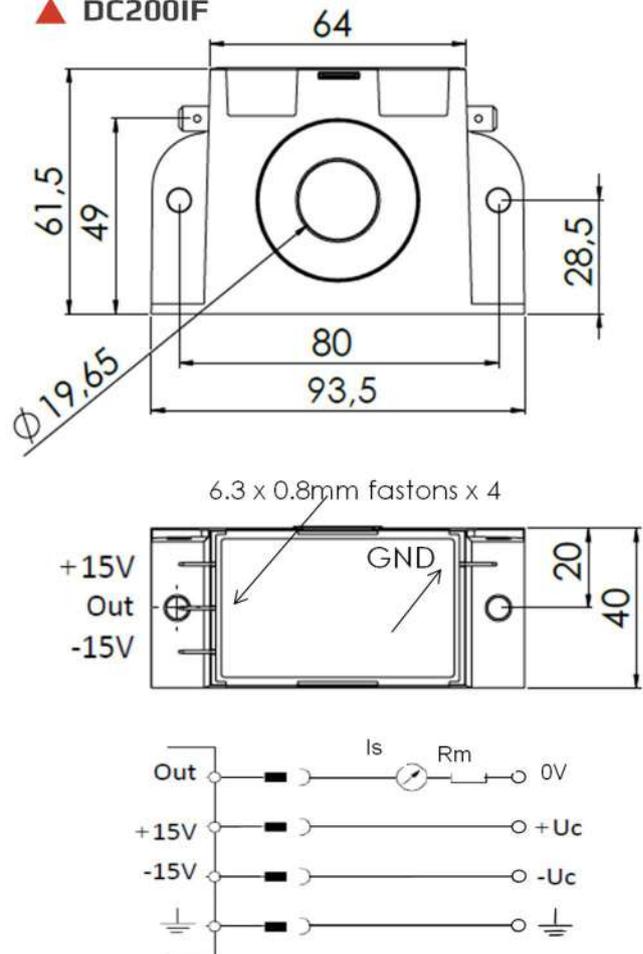
**▲ DP50IP-B**



**▲ DT50~200ID**



**▲ DC200IF**



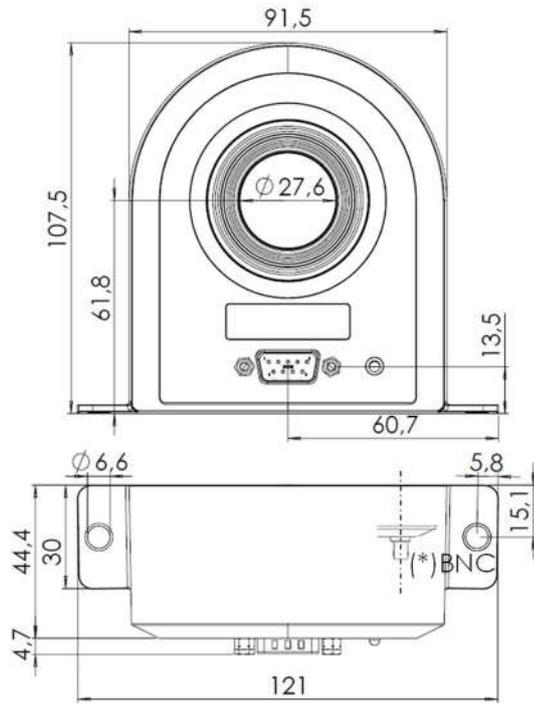
(unit : mm – general tolerance:  $\pm 0.3\text{mm}$  unless otherwise stated)

(\*) BNC connector: voltage output in UB models; or calibration coil terminals in -CB models

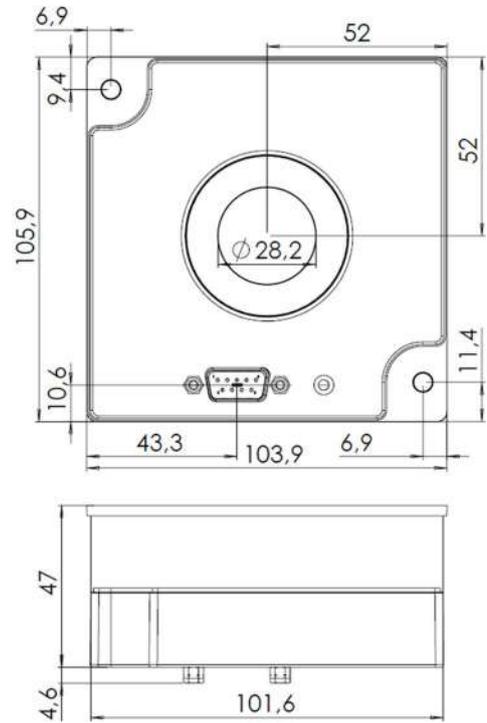
(\*\*) DSUB-21 pin: for configuration of rating current in DQ640D-B model

**■ DIMENSIONAL DRAWINGS**

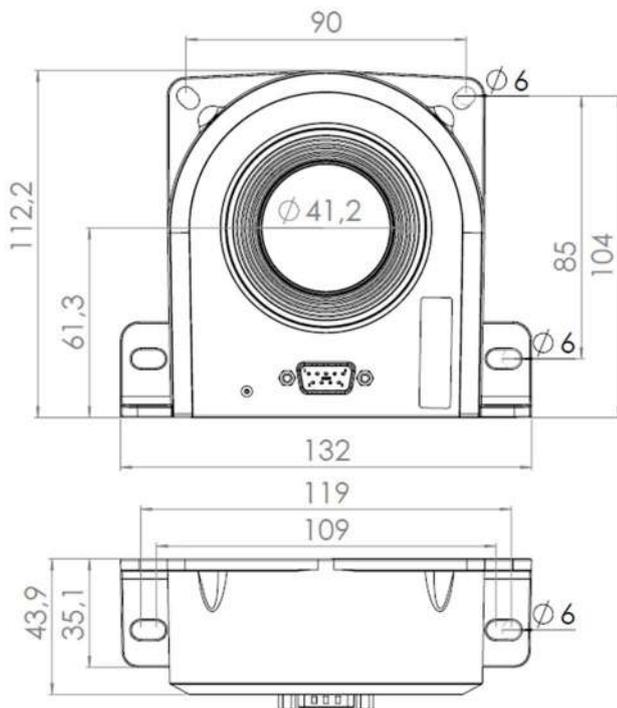
**▲ DS50~DS600ID /UB-1V /UB-10V (\*)**



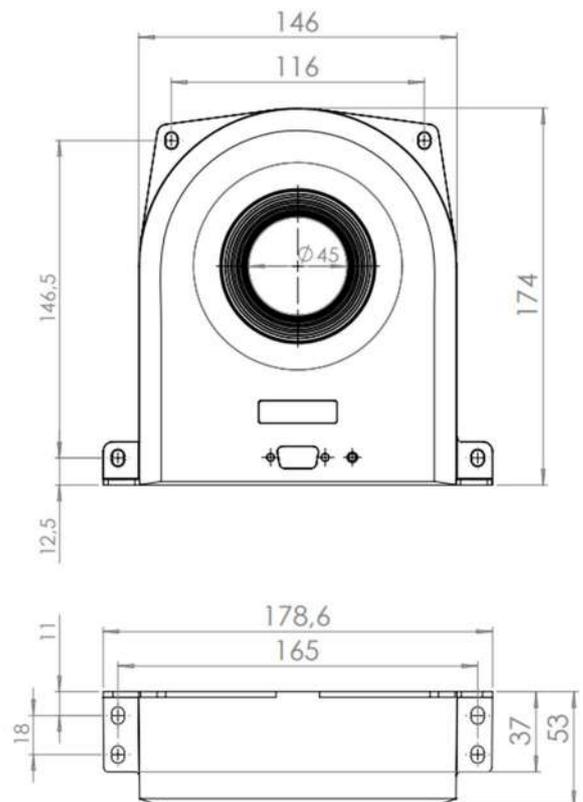
**▲ DQ50~DQ600ID**



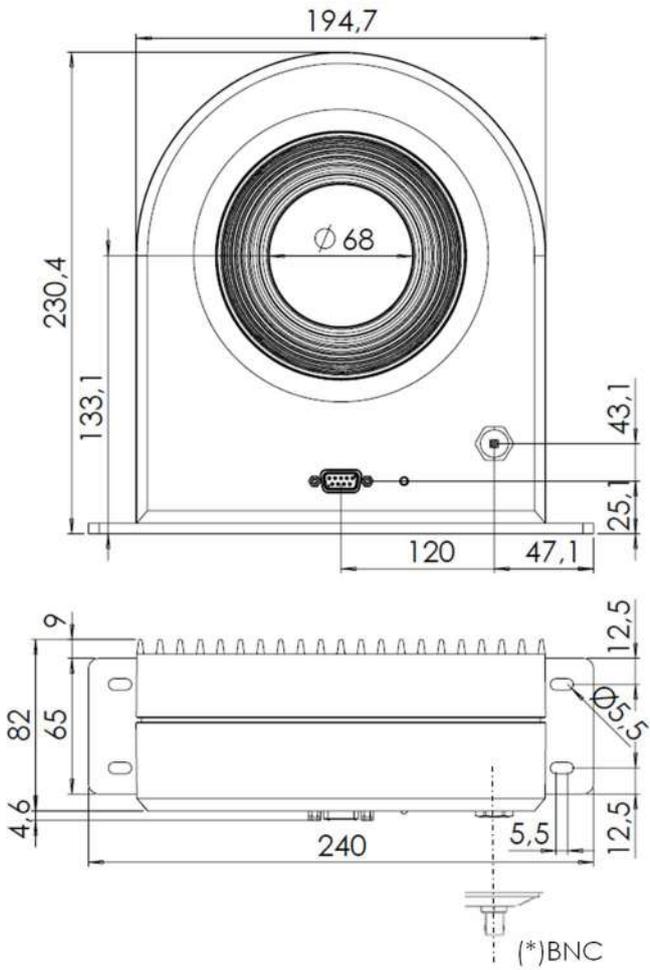
**▲ DN1000ID**



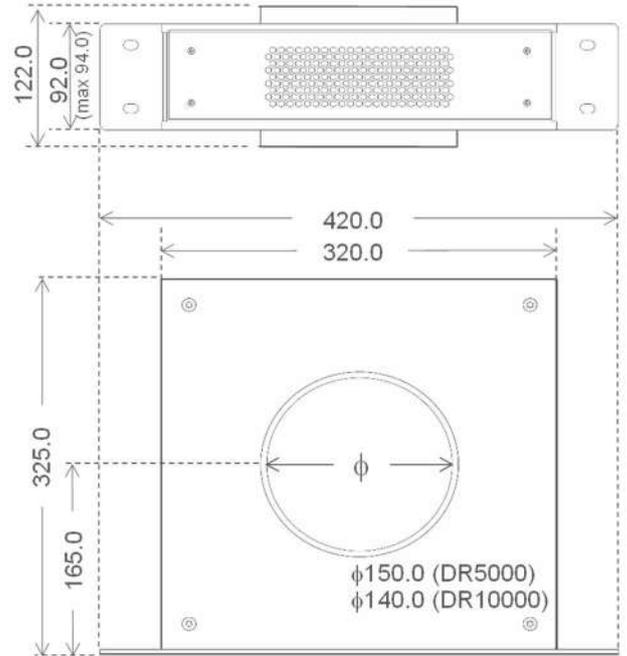
**▲ DM1200ID /UB-10V (\*)**



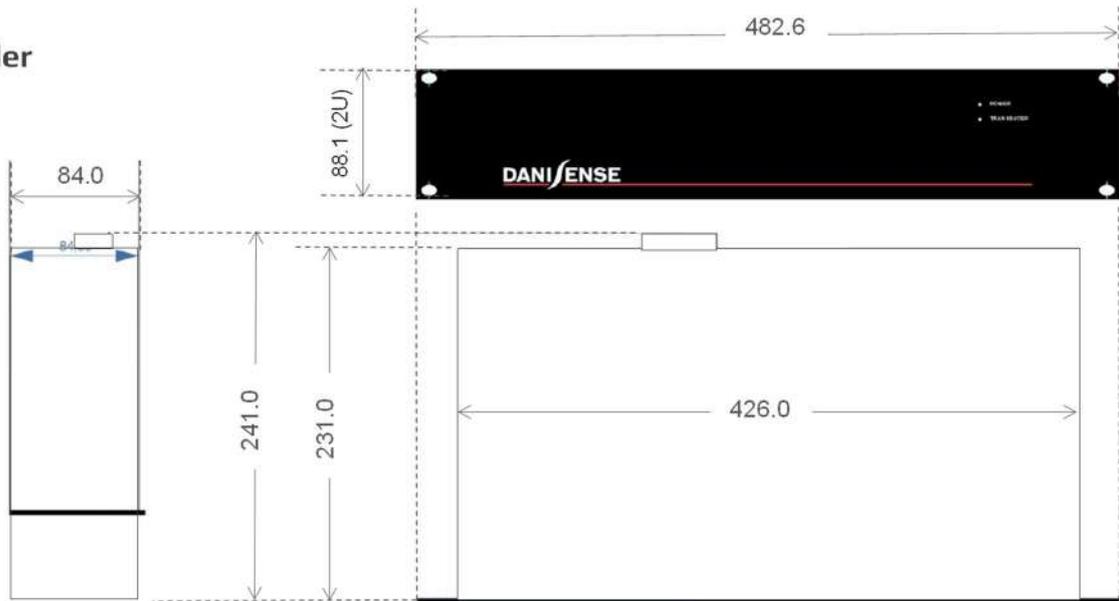
▲ DL2000ID /-CB100 /UB-1V /UB-10V (\*)



▲ DR5000~10000IM / UX-10V Head



Controller



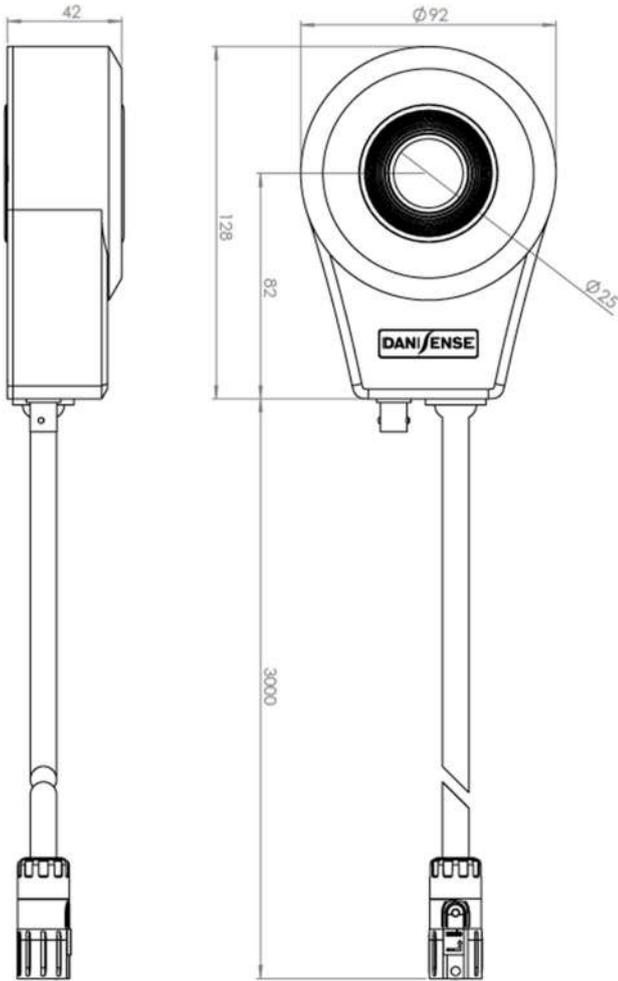
(unit : mm – general tolerance:  $\pm 0.3$ mm unless otherwise stated)

(\*) BNC connector: voltage output in UB models; or calibration coil terminals in -CB models

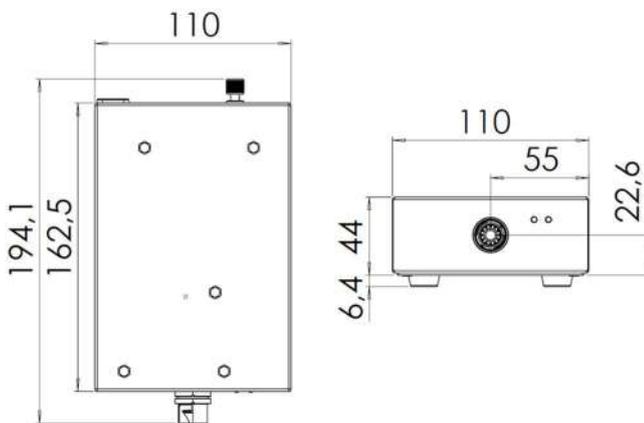
(\*\*) DSUB-21 pin: for configuration of rating current in DQ640ID-B model

**■ DIMENSIONAL DRAWINGS**

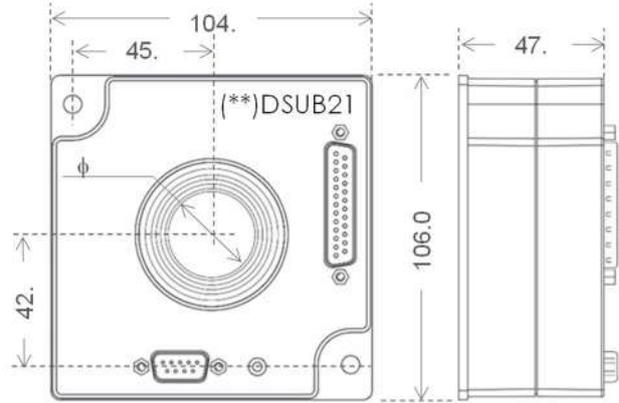
**▲ DW500UB-2V Head**



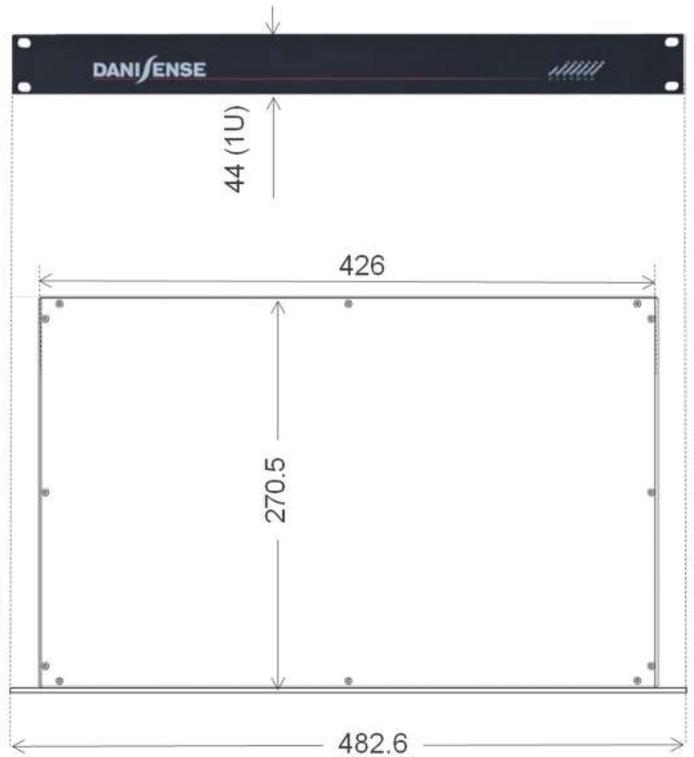
**Controller**



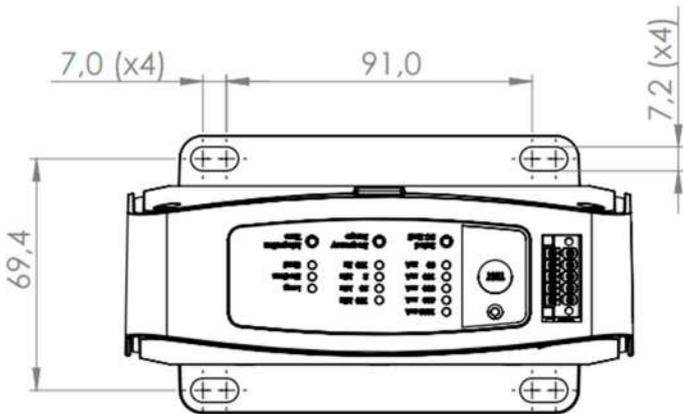
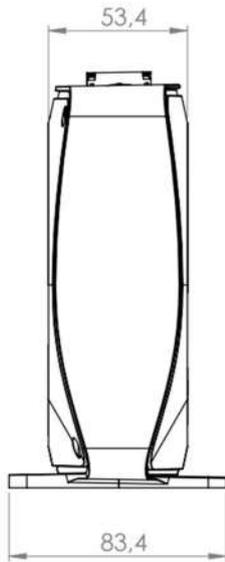
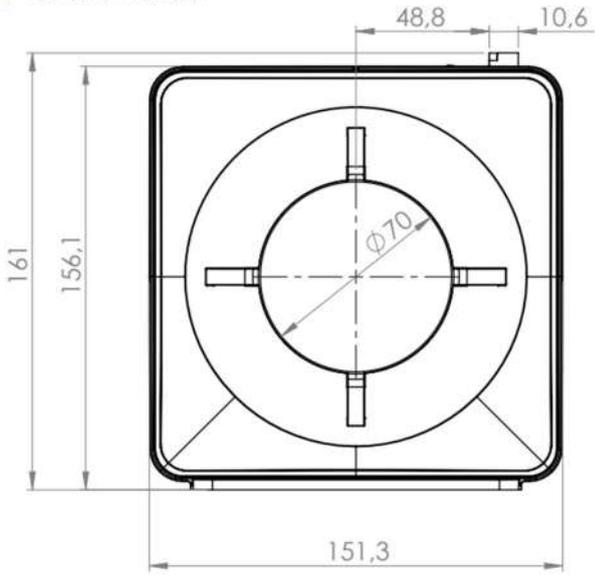
**▲ DQ640ID-B Programmable (\*\*)**



**▲ DSSIU-4-1U / DSSIU-6-1U**



▲ RCM/SRCM





## PRODUCT NAMING

DS 200 U B 10V

### Family Name

See mechanical outlines below

DP, DC,  
DT, DQ,  
DS, DN,  
DM, DL,  
DR, DW etc.

### RMS Current

e.g. 200 = 200A

### Output Type

I: Current  
U: Voltage

### Connector Type

B: DSUB & BNC  
D: DSUB  
W: wide bandwidth

F: Faston

M: Banana

L: LEMO

P: PCB

X: mini XLR

### Options & Special

1V: 1V @ xxxA

10V: 10V @ xxxA

R500: Ratio 1:500

CBxxx: xxx nb of calibration turns, BNC accessible

CDxxx: xxx nb of calibration turns, DSUB accessible

B: current rating programmable

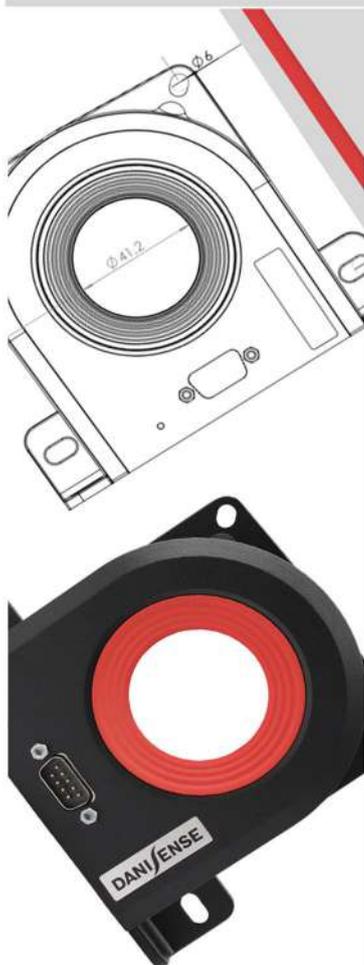
Pxxx: peak current measurable xxx amps

xV/yA: x volts at y amperes

10V/B: 10V @ programmable

Bulk: bulk packaging

CP##: Custom reference



[www.danisense.com](http://www.danisense.com)

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