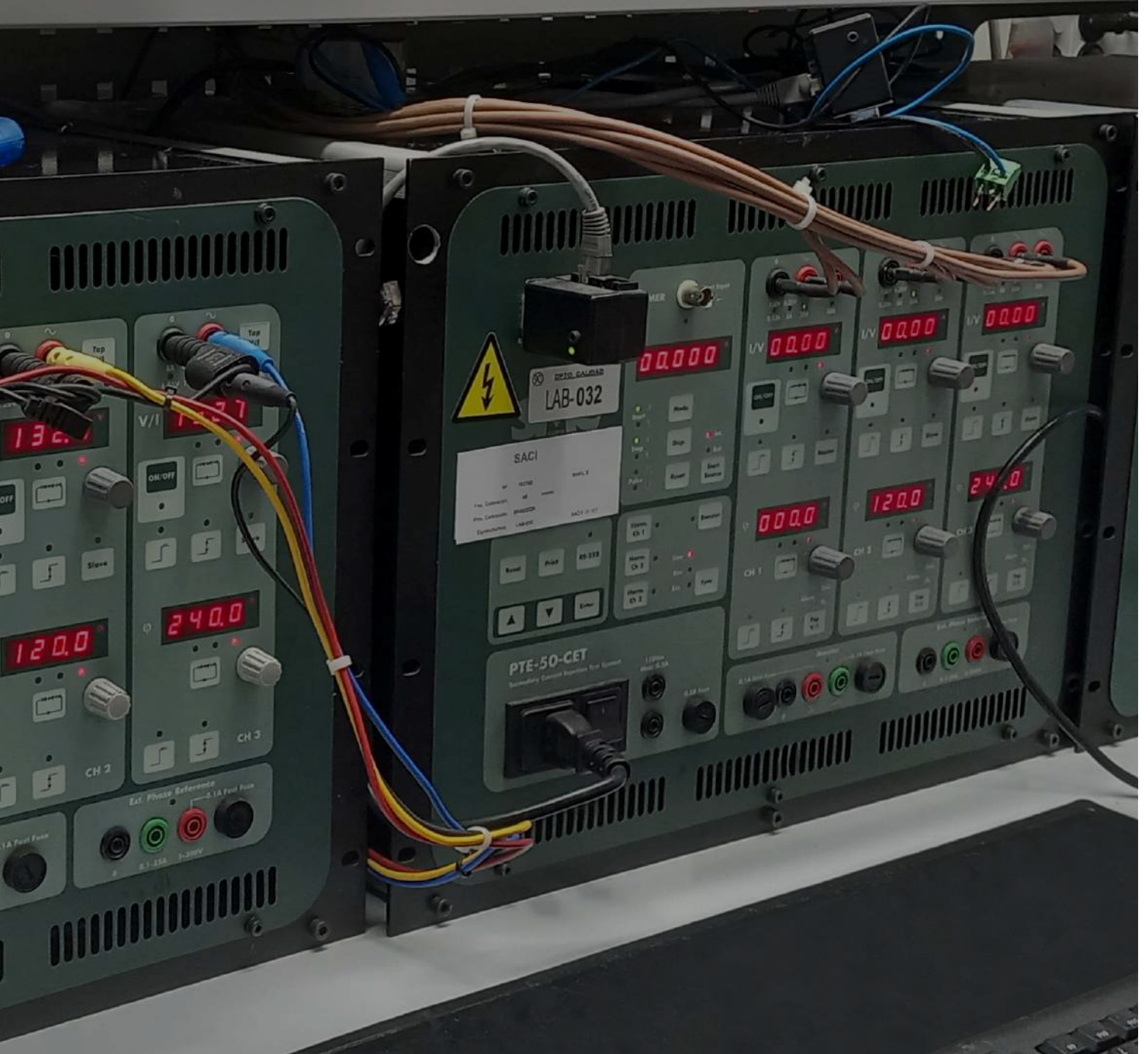


DIGITAL INSTRUMENTS



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Multi-Range Frequency Meter

AC current



General features:

- **Auxiliary voltage:** 110 - 230 V
- **Operating voltage:** 100 and 600 V
- **Overrange indication:** EEE
- **Max reading:** 999
- **No. of digits:** 3

General features	Range	Model
Frequency meter (DIN rail)	30-500 Hz	DB5RF

Multi-range voltmeter or ammeter

AC current



General features:

- **Auxiliary voltage:** Universal 45 - 275 V AC/DC
- **Overrange indication:** EEE
- **DIN rail**
- **No. of digits:** 3
- **Max. reading:** 999

General features	Range	Model
Voltmeter	100 and 600 V	DB5RE
Ammeter x/5 A	5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 - 60 - 75 - 100 - 125 - 150 - 200 - 300 - 400 - 500 - 600 - 750 - 1000 - 1250 - 1500 - 1600 - 2000 - 2500 - 3000 - 4000 - 5000 - 6000 - 8000 A	DB5RE

Multi-range voltmeter or ammeter

DC current



General features:

- **Auxiliary voltage:** Universal 45-275 V AC/DC
24-48 V DC
- **Overrange indication:** EEE
- **DIN rail**
- **No. of digits:** 3
- **Max reading:** 999

General features	Range	Model
Voltmeter	100 and 600 V	DB5RC
Ammeter x/60 mV	5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 - 60 - 75 - 100 - 125 - 150 - 200 - 300 - 400 - 500 - 600 - 750 - 1000 - 1250 - 1500 - 1600 - 2000 - 2500 - 3000 - 4000 - 5000 - 6000 - 8000 A	DB5RC

Voltmeter - ammeter

AC and DC current



General features:

Voltmeter-ammeters available in AC or DC with dual-reading display and micro-processor controlled digital display. Capable of simultaneously measuring current and voltage.

- **Auxiliary voltage:** Self-powered
Universal 45-275 V AC/DC
- **Overrange indication:** HHH
- **Max. reading:** 999
- **No. of digits:** 3
- **DIN rail**
- **Dimensions:** 2 modules, 35x96mm

Direct measurement

	AC current	Model
V	63,5 - 110 - 230 V	DB5RE2D
A	80 A	
	DC current	Model
V	12, 24, 48, 110, 125, 220 V	DB5RC2D
A	80A	

Indirect measurement

	AC current	Model
V	63,5 - 110 - 230 V	DB5RE2
A .. /100mA ⁽¹⁾	5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 - 60 - 75 - 100 - 125 - 150 - 200 - 300 - 400 - 500 - 600 - 750 - 1000 - 1250- 1500 - 1600- 2000 - 2500 - 3000 - 4000 - 5000 - 6000 - 8000 A	
	DC current	Model
V	12, 24, 48, 110, 125, 220 V	DB5RC2
A .. /60 mV ⁽²⁾	5 - 10 - 15 - 20 - 25 - 30 - 40 - 50 - 60 - 75 - 100 - 125 - 150 - 200 - 300 - 400 - 500 - 600 - 750 - 1000 - 1250- 1500 - 1600- 2000 - 2500 - 3000 - 4000 - 5000 - 6000 - 8000 A	

(1) Connection to transformers (2) Connection to shunt

Programmable multirange instruments

Voltmeters - ammeters. AC current



General features:

- No. of digits: 4
- Max. reading: 9999
- Selectable display
- Overrange indication: HHHH
- Panel and DIN rail

Range	
Ammeter	x/ 5 A and x/1 A programmable ⁽¹⁾
Voltmeter	500V

Aux. V.: universal (45-275V) AC/DC

Model	DH4B	DH3B	DP46B	DP35B
Dimensions (mm)	72 x 72	96 x 96	72 x 36	96 x 48

(1) For transformer connection

Programmable multirange instruments

Voltmeters - ammeters. AC current



General features:

- No. digits: 4
- Max reading: 9999
- Selectable display
- Overrange indication: HHHH
- DIN rail and panel



AC voltmeter



AC ammeter

Range	
Ammeter	x/ 5 A and x/1 A ⁽¹⁾
Voltmeter	x/ 100 V or x/ 110 V ⁽¹⁾ 0 - 200 V or 0 - 500 V

Aux. V.: universal (45-275V) AC/DC - Aux. V.: 380 or 400V ± 10% AC - Aux. V.: 12, 24 or 48V ± 20% DC

Model	DH5EM	DH4EM	DH3EM	DH4EM-A ⁽²⁾	DP46EM	DP35EM
Dimensions (mm)	48 x 48	72 x 72	96 x 96	72 x 72	72 x 36	96 x 48

(1) For transformer connection

(2) Equipment with minimum and maximum contact for programming alarms. Universal auxiliary voltage only

DIGITAL INSTRUMENTS

Programmable instruments multirange

Voltmeters or ammeters. DC current



General features:

- No. of digits: 4
- Max. reading: 9999
- Selectable display
- Overrange indication: HHHH
- DIN rail and panel mounting



DC voltmeter



DC ammeter

Range	
Ammeters	x/ 60mV or x/150 mV ⁽¹⁾
Voltmeters	0 - 200 V or 0 - 500 V

Aux. V.: universal (45-275V) AC/DC - Aux. V.: 380 or 400V ± 10% AC - Aux. V.: 12, 24 or 48V ± 20% DC

Model	DH5CM	DH4CM	DH3CM	DP46CM	DP35CM
Dimensions (mm)	48 x 48	72 x 72	96 x 96	72 x 36	96 x 48

(1) For shunt connection

Non programmable instruments

Voltmeters or ammeters. AC and DC current



General features:

- Max. reading: 19999
- DIN rail and panel mounting

Range		
	AC current	DC current
Ammeters	199,9 or 1999 mA	199,9 µA
	1,999 A	1,999 - 19,99 or 199,9 mA
	x/ 1 or x/ 5 A ⁽¹⁾	1,999 A
Voltmeters		x/60 or x/150 mV ⁽²⁾
	1,9999 - 19,99 - 199,9 or 600 V	199,9mV
	x/ 100 or 110 V ⁽¹⁾	1,999 - 19,99 - 199,9 or 600 V

Aux. V.: 110 - 230 or 400 V AC

Model	AC current				DC current			
	DQ4E	DQ3E	DQ46E	DQ35E	DQ4C	DQ3C	DQ46C	DQ35C
Dimensions (mm)	72 x 72	96 x 96	72 x 36	96 x 48	72 x 72	96 x 96	72 x 36	96 x 48
Max. reading	4 ½ digits (RMS)							
Overrange indication	0000 (flashing)							

Aux. V.: 12, 24 or 48 V DC

Model	AC current			DC current		
	DP57E	DP47E	DP37E	DP57C	DP47C	DP37C
Dimensions (mm)	48 x 24	72 X 24	96 X 24	48 x 24	72 X 24	96 X 24
Max. reading	3 ½ digits					
Overrange indication	1 - - -					

(1) For transformer connection. (2) For shunt connection



AC voltmeter



AC ammeter



DC voltmeter



DC ammeter

Double and triple display instruments

4 digits. AC and DC current.



General features:

- **Auxiliary voltage:** Universal 45-275V AC/DC
380 or 400V $\pm 10\%$ AC ⁽¹⁾
12, 24 or 48V $\pm 20\%$ DC ⁽¹⁾
- **Jump programmable**
- **No. of digits:** 4
- **Max. reading:** 9999
- **Overrange indication:** HHHH
- **Panel mounting**



AC instruments



DC instruments

Model	AC current					DC current
	DH4EM2	DH3EM3	DH3EM3	DH3EM3	DH3EM3	DH3C2M
Dimensions (mm)	72 x 72	96 x 96	96 x 96	96 x 96	96 x 96	96 x 96
Display 1	Voltmeter 0 - 500 V	Voltmeter 0 - 500 V (phase-phase)	Voltmeter 0 - 300 V (phase-neutral)	Ammeter ../1A or ../5A ⁽¹⁾	Voltmeter 0 - 500 V	Ammeter x/60mV ⁽²⁾
Display 2	Ammeter x/1A or x/5A ⁽¹⁾	Voltmeter 0 - 500 V (phase-phase)	Voltmeter 0 - 300 V (phase-neutral)	Ammeter ../1A or ../5A ⁽¹⁾	Ammeter ../1A or ../5A ⁽¹⁾	Voltmeter 0 - 500V
Display 3	-	Voltmeter 0 - 500 V (phase-phase)	Voltmeter 0 - 300 V (phase-neutral)	Ammeter ../1A or ../5A ⁽¹⁾	Frequency meter 0 - 999 Hz	-
Range	V - A	V ₁₂ - V ₁₃ - V ₂₃	V ₁ - V ₂ - V ₃	A ₁ - A ₂ - A ₃	V - A - Hz	V - A

(1) For connection to transformers (2) For connection to shunt

Double and triple display instruments

3½ digits. AC current



General features:

- **Auxiliary voltage:** 110, 230 or 400V $\pm 10\%$ AC
12, 24 or 48, 110 or 220V $\pm 20\%$ AC
- **Accuracy:** 0,5% of the reading ± 1 digit AC
0,2% of the reading ± 1 digit DC
- **No. of digits:** 3½
- **Max. reading:** 1999
- **Overrange ind.:** 1---
- **Panel mounting**



Range	
Ammeter	199,9 μ A
	1,999 - 19,99 - 199,9 mA
	1,999A
Voltmeter	x/60mV or x/150 mV ⁽³⁾
	1,9999 - 19,99 - 199,9 or 600 V
	199,99 mV

Model	DH5C2 ⁽¹⁾	DH4C2 ⁽²⁾	DH3C2	DH3C3
Dimensions (mm)	48 x 48	72 x 72	96 x 96	96 x 96
No. of displays	2	2	2	3
Measurement range	A, V or transducer output (mA)			

(1) Auxiliary voltage: 12, 24 or 48 DC. (2) Auxiliary voltage: 12, 24 or 48 DC or 110, 230 or 400V AC. (3) For shunt connection.

Programmable maximum demand ammeters



4 digits. AC and DC current



General features

- Instantaneous, average and maximum current value.
- Average current value (adjustable time interval 8, 15, 20 and 30 min).
- True value RMS.
- Keypad programmable alarm.

- **Auxiliary voltage:** 110, 230V ± 20% AC
12, 24, 48 or 110 ± 20% DC
- **Accuracy:** 0,5% of range ±1 digit
- **Alarm circuit:** 1 potential free contact (250V, 3A, 200VA)
- **No. of digits:** 4
- **Max. reading:** 9999
- **Overrange ind.:** F.ESC
- **Panel mounting**

Model	AC Current			DC current
	DP46M	DP46M-IR	DP46M-II	DP46MC
Dimensions (mm)	72 X 36			72 X 36
Measurement range	x/1 or x/5A ⁽¹⁾			x/60 mV ⁽²⁾
Alarm	Integrated	Instantaneous	Inverted instantaneous	Integrated

(1) For transformers connection. (2) For shunt connection

Alarm programming			
Current type on alarm	Integrated	Instantaneous	Inverted instantaneous
Contacts	NC	NC	NO
Delay	NO	0..99,9 s	NO
Hysteresis	NO	5%	5%

NO: Normally open. NC: Normally closed.

DMP3 - Programmable digital multimeter



4 digits. AC current



General features:

- 3 intensity
- 3-phase (phase-phase)
- 3-phase (phase-neutral)
- Frequency
- Current and voltage isolated
- **Auxiliary voltage:** 10, 230 or 400V AC
- **Max. voltage:** 300V phase-neutral
500V phase-phase
- **Accuracy:** 0,5% FE + 2 digits
- **Measurement refreshment:** 3 times per sec (aprox.)
- **Dimensions:** 96x96 mm

General features	Range	Model
Current	5/5 to 9000/5A (programmable)	DMP3
Voltage	3 x 230 (400) V	
Frequency	10 - 100 Hz	

Programmable digital instruments

3½ and 4 digits. DC current



General features:

3½ digits

- Keypad programmable display scale (offset, end of scale and decimal point).
- Optional keypad programmable alarm.

4 digits

- Keypad programmable display scale (offset, end of scale and decimal point).
- Indication of the measured variable, its integrated value and recording of the integrating maximum.
- Double alarm programmable by keypad, with maximum and minimum threshold.

- **Auxiliary voltage:** 110, 230 or 400 V ± 20% AC • **Alarm circuit:** 1 potential-free contact (250V, 3A, 200VA).
12, 24, 48 or 110 ± 20% DC Optional max or min value.
- **Accuracy:** 0,2% of range ± 1 digit
- **Overrange indication:** OFL

Range	
Ammeters	0 - 1; 0 - 5; 0 - 10; 0 - 20 or 4 - 20 mA (*)
Voltmeters	0-1; 0-5; 0-10; 1-0-1; 5-0- 5; 10-0-10; 1-5 or 2-10 V (*)

Units
mA - A - kA - mV - V - kV - rpm - % -m- Kg - bar - mm - kN - Hz - W - kW - mW - VA - var - mvar - kVA - °C - °F

Model	DP35CP	DP46CPM
No. of digits	3½	4
Dimensions (mm)	96x48	72x36
Max. reading	±1999	999; -999 (divided negative)

(*) For converters connection

Digital frequency meters

4 digits. AC current



General features:

- **Auxiliary voltage:** 110, 230 or 400 V ± 20% AC
- **Operating voltage:** 10 - 500V
- **Accuracy:** 0,05% of reading ± 1 digit
- **No. of digits:** 4
- **Max reading:** 9999
- **Panel mounting**

Model	DH4F	DH3F	DP46F	DP35F
Dimensions (mm)	72 x 72	96 x 96	72 x 36	96 x 48
Display	0 - 999,9 Hz			

400V for size 72x72mm or 72x36mm consult us.

Programmable wattmeters and varmeters

4 digits. AC current



General features:

- Keypad-programmable current and voltage transformer ratios.
- Alarm (optional) programmable by keypad.

- **Voltage input:** 100, 110, 230 or 400V AC
- **Current input:** x/1 or x/5 (*)
- **Auxiliary voltage:** Self-powered
- **Alarm circuit:** 1 potential-free contact (250V, 3A, 200VA)
- **No. of digits:** 4
- **Max. reading:** -1999 / 9999
- **Overrange indication:** OFL
- **Accuracy:** 0.5% of full scale value ± 1 digit



Wattmeters



Varmeters

Model	Wattmeters		Varmeters	
	DP35W	DP35WI	DP35Wr	DP35WIr
Dimensions (mm)	96x48	96x48	96x48	96x48
Type	Single-phase	Three-phase balanced	Single-phase	Three-phase balanced

(*) Connecting to transformers

Phase angle meters

3 ½ digits. AC current



General features:

- **Voltage input:** 100, 110, 230 or 400V AC
- **Current input:** x/1 or x/5 (*)
- **Auxiliary voltage:** self-powered
- **Measurement range:** CAP 0-1-0 IND
- **No. of digits:** 3½
- **Max. reading:** 1000
- **Overrange indication:** ----
- **Accuracy:** 0,5% (90° electrical)

Model	Single-phase				Three-phase balanced			
	DH4S	DH46S	DH3S	DP35S	DH4SI	DH46SI	DH3SI	DP35SI
Dimensions (mm)	72 x 72	72 x 36	96 x 96	96 x 48	72 x 72	96 x 96	72 x 36	96 x 48

(*) Connection to transformers



Instruments for transducer output

3½, 4, and 4 ½ digits. DC current



General features:

- **Auxiliary voltage:** 110, 230 or 400V AC ± 20%
- **Accuracy:** 0,5% of reading ±1 digit AC
0,2% of reading ±1 digit DC
- **No. of digits:** 3½
- **Max. reading:** 19999
- **Overrange indication:** 0000 or 1---

Units

mA - A - kA - mV - V - kV - rpm - % - m - Kg - bar - mm - kN - Hz
- W - kW - mW - VA - var - kvar - mvar - kVA - °C - °F

Aux. V.: 12, 24 or 48 V DC - Aux. V.: 380 or 400 V AC - Aux. V.: universal (45-275V) AC/DC

Model	DH5C	DH4C	DH3C	DP46C	DP35C
Dimensions (mm)	48x48	72 x 72	96 x 96	72 x 36	96 x 48
Max. reading	4 digits				
Overrange indication	0000 (blinking)				
Converters output	V		0-1; 0-5 or 0-10; 1-5 or 2-10 V		
	mA		0-1; 0-5; 0-10; 0-20; 4-20 mA		

Aux. V.: 110 - 230 or 400 V AC

Model	DQ4C	DQ3C	DQ46C	DQ35C
Dimensions (mm)	72 x 72	96 x 96	72 x 36	96 x 48
Max. reading	4 ½ digits			
Overrange indication	0000 (blinking)			
Converters output	V		0-1; 0-5 or 0-10 ±1 ±5 ±20 1-5 or 2-10 V	
	mA		0-1; 0-5; 0-10; 0-20 ±1 ±5 ±20 4-20 mA	

Aux. V.: 12, 24 or 48 V DC

Model	DP57C	DP47C	DP37C
Dimensions (mm)	48 x 24	72 X 24	96 X 24
Max reading	3 ½ digits		
Overrange indication	1 ---		
Converters output	V		0-1; 0-5 or 0-10 V
	mA		0-1; 0-5; 0-10; 0-20; 4-20 mA