

GENERAL

- 3, 3½, 4 & 4½ Digits
- Direct Current (DC.)
- Alternating Current (AC.)
- Auxiliary power supply A.C.(110, 230 or 400 V)
- Auxiliary power supply D.C.(12, 24, 48,110 or 220 V)
- Universal auxiliary power supply AC. and DC. (45-275 V)

DIMENSIONS

48x24, 72x24, 96x24 mm
 72x36, 96x48 mm
 48x48, 72x72, 96x96 mm
 Din Rail 2 modules

STANDARDS

EN 60051	Direct measuring equipment.
EN 60068	Environmental and vibration tests.
EN 60801	Electromagnetic compatibility.
EN 61010	Safety requirements for electrical equipment.
EN 60529	Casing protection class (IP Code).
EN 61000	Electromagnetic compatibility.
UL 94	Flammability test.
IEC 664	Insulation requirements.
IEC 255	Insulation test.

TECHNICAL SPECIFICATIONS

Test Voltage	2 kV, 50 Hz, 1 min.
Impulse voltage strength test	5 kV, 1,2/50 µs.
Admissible overloads	
- Current input	
Standard	1,2 In continuously 2 In, 10 s.
Starting motors	2 In continuously 5 In , 10 s.
- Voltage input	1,2 Vn continuously 2 Vn, 10 s.
Measuring range	5-120% (4 digits) 0-120% (3, 3½ and 4½ digits)
Reference Temperature	23 °C ±1 °C
Operating Temperature	-10 °C to + 55 °C
Storage Temperature	-30 °C to + 70 °C

(*) Other technical specifications on request.

PROGRAMMABLE/MULTIRANGE ALTERNATING CURRENT

**Auxiliary voltage Supply: UNIVERSAL (45-275) or STANDARD A.C/D.C.
4 DIGITS**

Display:	Red light, digit height 14,3 mm, high luminosity. Models DH5EM, DP46EM, digit height 10,2 mm.
Max. Reading:	9999
Overrange:	HHHH
Accuracy:	0,5% of reading \pm 1 Digit
Auxiliary Voltage:	UNIVERSAL (45-275 V) A.C./D.C.
	Burden A.C.< 4 VA D.C.< 2 W
Standard Auxiliary Voltage:	A.C. 110, 230 or 400 V \pm 20% Burden < 3 VA C.C. 12, 24, 48, 110 or 220 V \pm 20% Burden < 2 W
Temperature coefficient:	0,01% / °C



PROGRAMMABLE AMMETERS

ALTERNATING CURRENT		
MODEL (Dimensions)	DH5EM (48x48)	DP46EM (72x36)
	DH4EM (72x72)	DP35EM (96x48)
	DH3EM (96x96)	
PROGRAMMABLE RANGE		
Measuring range X/5 - X/1 A	1...9999 A Decimal point and display value selection using the front keys ▲ ▼	

PROGRAMMABLE VOLTMETERS

ALTERNATING CURRENT		
MODEL (Dimensions)	DH5EM (48x48)	DP46EM (72x36)
	DH4EM (72x72)	DP35EM (96x48)
	DH3EM (96x96)	
PROGRAMMABLE RANGE		
Measuring range X/100 - X/110 V	1...9999 V or kV Decimal point and display value selection using the front keys ▲ ▼	

DIRECT INPUT VOLTMETERS

ALTERNATING CURRENT		
MODEL (Dimensions)	DH5EM (48x48)	DP46EM (72x36)
	DH4EM (72x72)	DP35EM (96x48)
	DH3EM (96x96)	
DISPLAY		
Measuring range	500 V	

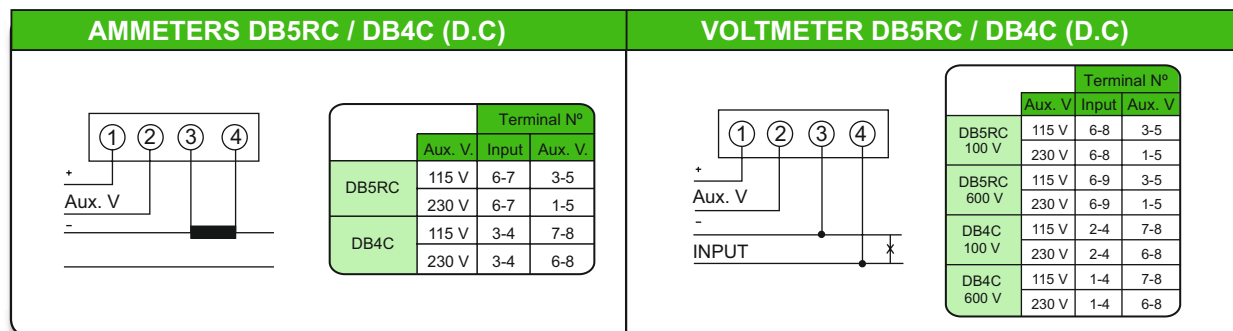
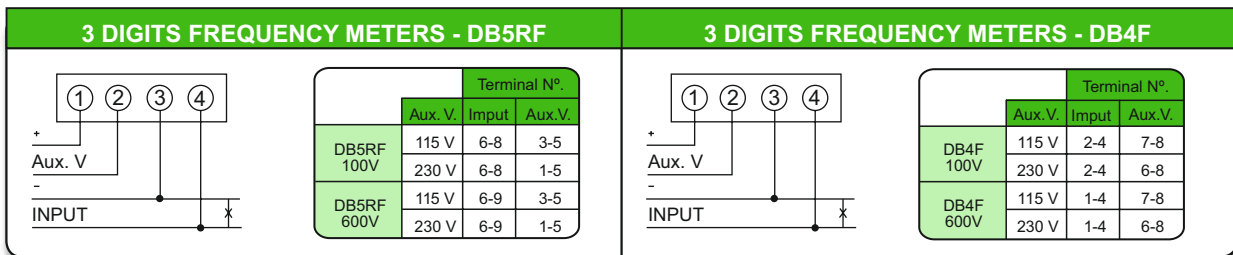
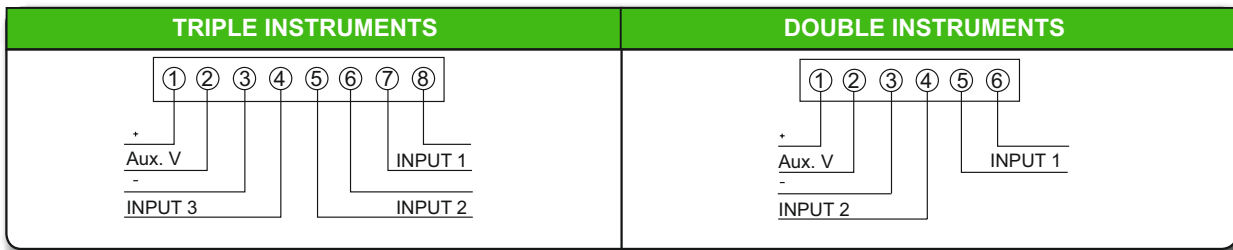
CONNECTION DIAGRAMS (4 DIGIT INSTRUMENTS)

<p>AMMETER / VOLTMETER</p>	<p>AMMETER / VOLTMETER (DH5-)</p>
<p>TRIPLE AMMETER (A-A-A)</p>	<p>TRIPLE VOLTMETER (Phase / Neutral)</p>
<p>TRIPLE VOLTMETER (Phase/Phase)</p>	<p>DOUBLE INSTRUMENTS (V-A)</p>
<p>TRIPLE VOLTMETER (A-V-Hz)</p>	<p>AMMETER / VOLTMETER (4 1/2 DIGITS)</p>

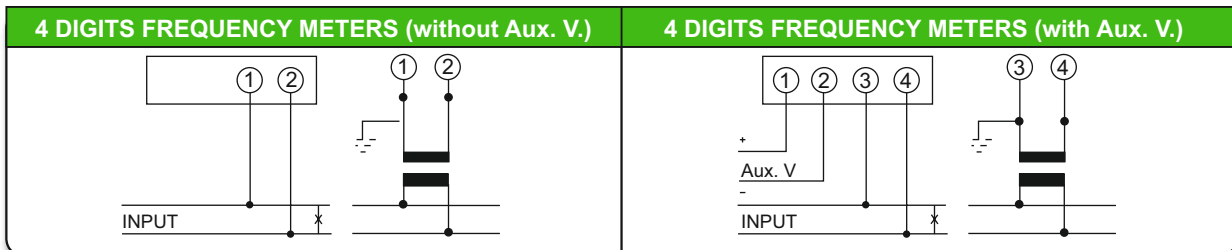
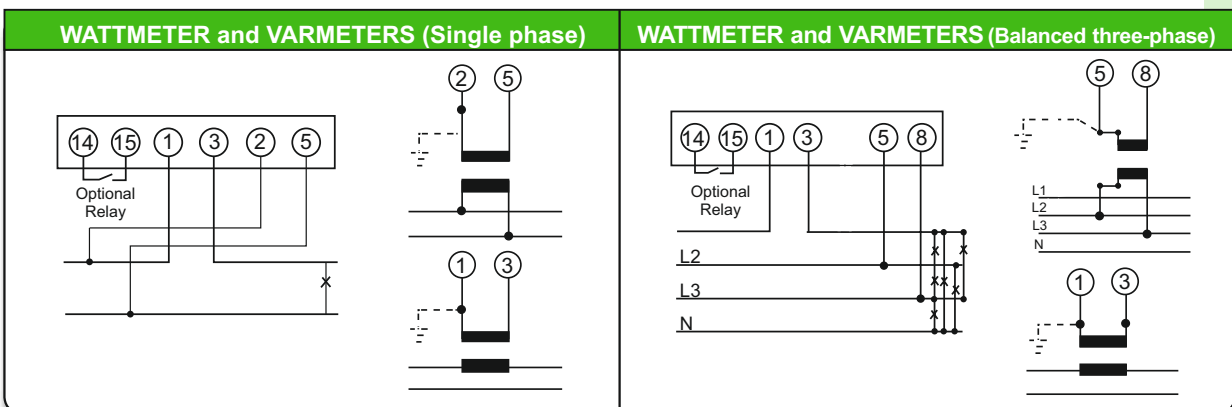
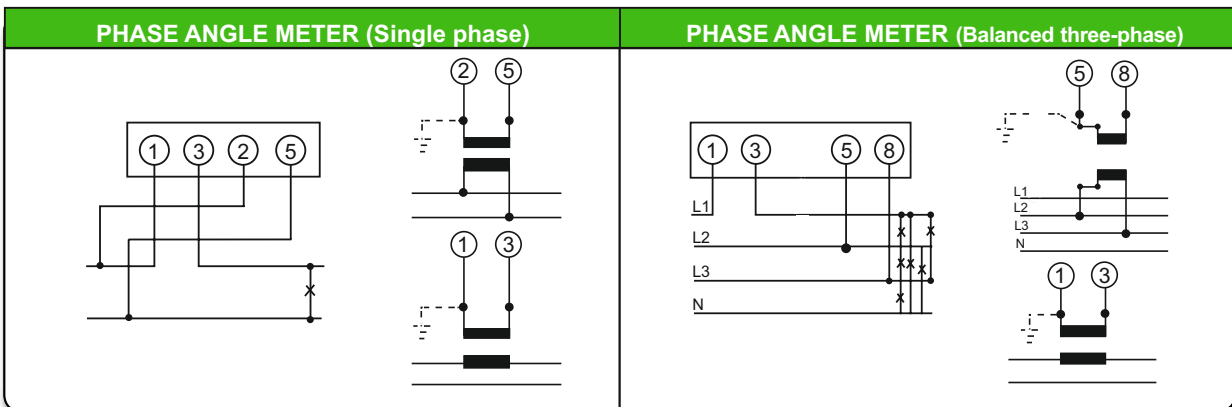
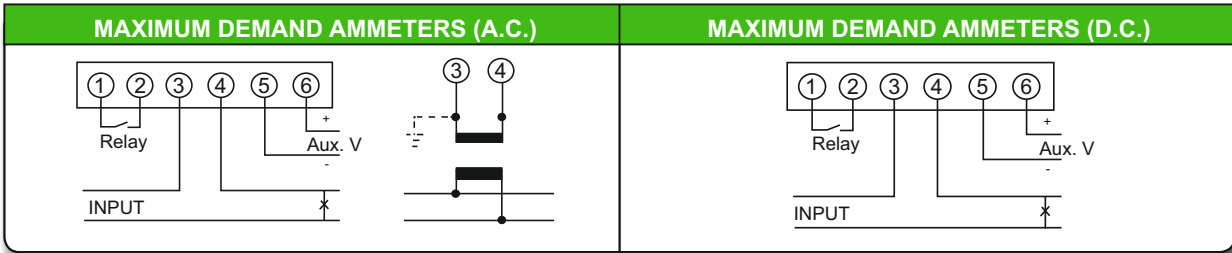
CONNECTION DIAGRAMS

<p>AMMETER DB5RE/ DB4E (A.C)</p> <table border="1" data-bbox="459 1568 730 1736"> <thead> <tr> <th></th> <th colspan="3">Terminal N°</th> </tr> <tr> <th></th> <th>Aux. V</th> <th>Input</th> <th>Aux. V</th> </tr> </thead> <tbody> <tr> <td>DB5RE</td> <td>115 V</td> <td>6-7</td> <td>3-5</td> </tr> <tr> <td></td> <td>230 V</td> <td>6-7</td> <td>1-5</td> </tr> <tr> <td>DB4E</td> <td>115 V</td> <td>3-4</td> <td>7-8</td> </tr> <tr> <td></td> <td>230 V</td> <td>3-4</td> <td>6-8</td> </tr> </tbody> </table>		Terminal N°				Aux. V	Input	Aux. V	DB5RE	115 V	6-7	3-5		230 V	6-7	1-5	DB4E	115 V	3-4	7-8		230 V	3-4	6-8	<p>VOLTMETER / DB4E (A.C)</p> <table border="1" data-bbox="1088 1527 1327 1780"> <thead> <tr> <th></th> <th colspan="3">Terminal N°</th> </tr> <tr> <th></th> <th>Aux. V</th> <th>Input</th> <th>Aux. V</th> </tr> </thead> <tbody> <tr> <td>DB5RE</td> <td>115 V</td> <td>6-8</td> <td>3-5</td> </tr> <tr> <td></td> <td>230 V</td> <td>6-8</td> <td>1-5</td> </tr> <tr> <td>DB5RE</td> <td>115 V</td> <td>6-9</td> <td>3-5</td> </tr> <tr> <td></td> <td>230 V</td> <td>6-9</td> <td>1-5</td> </tr> <tr> <td>DB4E</td> <td>115 V</td> <td>2-4</td> <td>7-8</td> </tr> <tr> <td></td> <td>230 V</td> <td>2-4</td> <td>6-8</td> </tr> <tr> <td>DB4E</td> <td>115 V</td> <td>1-4</td> <td>7-8</td> </tr> <tr> <td></td> <td>230 V</td> <td>1-4</td> <td>6-8</td> </tr> </tbody> </table>		Terminal N°				Aux. V	Input	Aux. V	DB5RE	115 V	6-8	3-5		230 V	6-8	1-5	DB5RE	115 V	6-9	3-5		230 V	6-9	1-5	DB4E	115 V	2-4	7-8		230 V	2-4	6-8	DB4E	115 V	1-4	7-8		230 V	1-4	6-8
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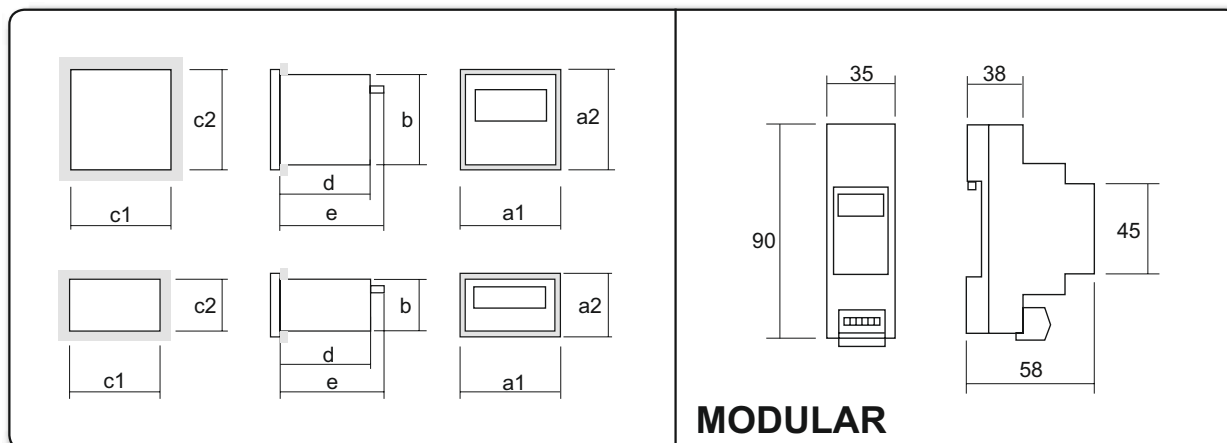
CONNECTION DIAGRAMS



CONNECTION DIAGRAMS



DIMENSIONS



MODULAR

3, 3½ & 4½ DIGITS		DQ4_ (*)	DQ3_ (*)	DP46_	DP35_			
		DH4_2	DH3_2	DP46F (*)	DP35CP (*)			
	DH5_	DH4S_ (*)	DH3_3	DP46M_	DP35S_ (*)	DP57_	DP47_	DP37_
		DB4_ (**)	DH3S_ (*)	DP46S_ (*)	DP35W_			
a1 x a2	48x48	72x72	96x96	72x36	96x48	48x24	72x24	96x24
b	42,6x42,6	66x66	90x90	66x32	90x42,6	42x21	66x21	90x21
c1 x c2	44,5 ^{+0,7} x44,5 ^{+0,7}	67,5 ^{+0,7} x67,5 ^{+0,7}	91,5 ^{+0,7} x91,5 ^{+0,7}	68 ^{+0,7} x32,5 ^{+0,7}	91,5 ^{+0,7} x43,5 ^{+0,7}	44 ^{+0,7} x22 ^{+0,7}	67,5 ^{+0,7} x22 ^{+0,7}	92 ^{+0,7} x22 ^{+0,7}
d	77	77	77	78,5	78,5	78,5	78,5	78,5
e	87	87	87	88,5	88,5	88,5	88,5	87,5
(*) d	---	112	112	112	112	---	---	---
(*) e	---	122	122	122	122	---	---	---
(**) d	---	51	---	---	---	---	---	---
(**) e	---	61	---	---	---	---	---	---
4 DIGITS	DH5_M	DH4_M	DH3_M	DP46_M	DP35_M			
a1 x a2	48x48	72x72	96x96	72x36	96x48			
b	44,6x44,6	66x66	90x90	66x32	90x43,7			
c1 x c2	46x46	67 ^{+0,4} x 67 ^{+0,4}	91 ^{+0,4} x 91 ^{+0,4}	67 ^{+0,4} x 32 ^{+0,6}	91 ^{+0,4} x 45 ^{+0,1}			
d	77	77	77	78,5	78,5			
e	87	87	87	88,5	88,5			