




# Digital instruments

Table: Digital instruments selection

		DM45	DC B	DHB
				
Mounting	Pannel	-	48 x 48 72 x 72	96 x 48
	DIN rail	2 modules		
AC measurement	Single-phase	•	•	•
AC measurement Parameters	Voltage	•	DCB-xx-Vac	T (DHB-300)
	Current	•	DCB-xx-Aac	T (DHB-300)
	Active power(W)	-	-	T (DHB-300)
	Frequenz (Hz)	•	DCB-xx-Vac / DCB-xx-Aac	T (DHB-300)
	Maximum demand (A)	•	-	-
DC measurement Parameters	Voltage	-	DCB-xx-Vdc	T (DHB-200)
	Current	-	DCB-xx-Adc	T (DHB-200)
	process signal	-	DCB-xx-mVdc DCB-xx-mAdc	T (DHB-400)
Accuracy	0,1	-	-	T
	0,50%	-	•	•
	1%	•	-	-
No electric parameters	Hour run meter	-	-	T (DHB-100)
	Temperature	-	T	T (DHB-400)
	Chronometer, impulse meter	-	-	T (DHB-100)
	Tachometer (r/min)	-	-	T (DHB-100)
Other options	auxiliar output relay	•	T (DCB-72xx-2OR)	2 ( 4 Opc.)
	Analog output	-	-	T
	communications port	-	-	T
	Auxliar power supply	•	•	-
	Frontal adapter	-	•	-

T - Depending type / OP - Optional

## DM45, Digital instruments

DM45 Series, DIN Rail, 230 Vac, 40...70 Hz



Type	Code	Parameters	Measure	Output relay
DM45-V	[*] M20901.	Voltmeter	50...600 Vac	1
DM45-A	[*] M20911.	Ammeter	... / 5 Aac	1
DM45-AD	[*] M20921.	Ammeter	0,5 ... 30 Aac	1
DM45-F	[*] M20931.	Frequencymeter	10 ... 600 Hz	1
DM45-CM	[*] M20941.	Analizer(V, A, Hz, THD)	600 Vac / .../5 A /10...600 Hz	1
DM45-CMD	[*] M20951.	Analizer(V, A, Hz, THD)	600 Vac / .../5 A /10...600 Hz	1

Other information of interest: Size: 2 modules

## DM45

Code	Internal code		
M 2 X X X X 0 0 X			
		↑	Delivery time
Auxiliary supply	Standard (230 V)	0	-
	100 ... 115 V <sub>ca</sub>	1	1
	18 ... 36 V <sub>cc</sub>	7	1

**DCB, Digital instruments**

80 ... 270 Vac /Vdc power supply voltage



Type	Code	System	Output relay	Scale	Size(mm)
<b>Voltmeters</b>					
DCB-48 Vac	[*] M22110.	AC	-	63,5 V / 100 V / 110 V / 230 V / 380 V / 480 V	48 x 48
DCB-72 Vac	[*] M22210.	AC	-	63,5 V / 100 V / 110 V / 230 V / 380 V / 480 V	72 x 72
DCB-72 Vac-2OR	[*] M22212.	AC	2	63,5 V / 100 V / 110 V / 230 V / 380 V / 480 V	72 x 72
DCB-48 LVdc	[*] M22120.	DC	-	± 10 V	48 x 48
DCB-72 LVdc	[*] M22220.	DC	-	± 10 V	72 x 72
DCB-72 LVdc-2OR	[*] M22222.	DC	2	± 10 V	72 x 72
DCB-48 HVdc	[*] M22130.	DC	-	± 500 V	48 x 48
DCB-72 HVdc	[*] M22230.	DC	-	± 1500 V	72 x 72
DCB-72 HVdc-2OR	[*] M22232.	DC	2	± 1500 V	72 x 72
<b>Ammeters</b>					
DCB-48 Aac	[*] M22150.	AC	-	1 A / 5 A	48 x 48
DCB-72 Aac	[*] M22250.	AC	-	1 A / 5 A	72 x 72
DCB-72 Aac-2OR	[*] M22252.	AC	2	1 A / 5 A	72 x 72
DCB-48 Adc	[*] M22170.	DC	-	1 A / 5 A	48 x 48
DCB-72 Adc	[*] M22270.	AC	-	1 A / 5 A	72 x 72
DCB-72 Adc-2OR	[*] M22272.	DC	2	1 A / 5 A	72 x 72
<b>Process indicators</b>					
DCB-48 mVdc	[*] M22140.	DC	-	60 mV / 75 mV / 100 mV / 150 mV / 200 mV	48 x 48
DCB-72 mVdc	[*] M22240.	DC	-	60 mV / 75 mV / 100 mV / 150 mV / 200 mV	72 x 72
DCB-72 mVdc-2OR	[*] M22242.	AC	2	60 mV / 75 mV / 100 mV / 150 mV / 200 mV	72 x 72
DCB-48 mAadc	[*] M22160.	DC	-	-20 ... +20 mA / 0...20 mA / 4...20 mA	48 x 48
DCB-72 mAadc	[*] M22260.	AC	-	-20 ... +20 mA / 0...20 mA / 4...20 mA	72 x 72
DCB-72 mAadc-2OR	[*] M22262.	AC	2	-20 ... +20 mA / 0...20 mA / 4...20 mA	72 x 72

**DH96, DC multimeter**

DH 96 series, 230 Vac, 45...65 Hz (panel installation 96 x 48 mm)



Type	Code	Accuracy	System	Parameters	Measure	Communications
DH96CPM	[*] M20419.	0,2 % ( ± 1dig)	DC	V, A, kW, kWh	Programmable.Selec. V : 100 / 300 / 800 Vdc	-
DH96CPM	[*] M2043F.	0,2 % ( ± 1dig)	DC	V, A, kW, kWh	Programmable.Selec. V : 100 / 300 / 800 Vdc	RS-485

**CODIFICATION TABLE**
**DCB**

Code		Internal Code	
M	2	X	X
X	X	X	X
0	0	X	
		↑ Delivery time	
Auxiliary supply	Standard (80... 270 V <sub>ac</sub> )	0	-
	18 ... 36 V <sub>dc</sub>	3	-

**DH 96**

Code		Internal Code	
M	2	X	X
X	X	X	X
0	0	X	
		↑ Delivery time	
		Standard (230 V <sub>ac</sub> )	0
		100 ... 120 V <sub>ac</sub>	1
		380 ... 400 V <sub>ac</sub>	3
Auxiliary supply	480 ... 500 V <sub>ac</sub>	4	2
	18 ... 36 V <sub>dc</sub>	7	2
	36 ... 72 V <sub>dc</sub>	8	
	40 ... 170 V <sub>dc</sub>	9	

**DHB, Digital instruments**

85 ... 253 Vac /Vdc power supply voltage

Type	Code	Parameters	Measure	Output relay	Analog output	Communications
DHB-102	[1] M22021.	Impulses, frequency, circular speed, periods, worktime, encoder position	imp., Hz.	1	-	-
DHB-124	[1] M22022.	Impulses, frequency, circular speed, periods, worktime, encoder position	imp., Hz.	3	1	RS-485
DHB-202	[1] M22023.	Voltmeter or ammeter $\pm 100 \dots 500$ Vdc $\pm 1/5$ Adc	$\pm 100 \dots 500$ Vdc $\pm 1/5$ Adc	2	-	-
DHB-224	[1] M22024.	Voltmeter or ammeter $\pm 100 \dots 500$ Vdc $\pm 1/5$ Adc	$\pm 100 \dots 500$ Vdc $\pm 1/5$ Adc	4	1	RS-485
DHB-302	[1] M22025.	Single-phase analyzer	$\pm 100/400$ Vac $\pm 1/5$ Aac	2	-	-
DHB-324	[1] M22026.	Single-phase analyzer	$\pm 100/400$ Vac $\pm 1/5$ Aac	4	1	RS-485
DHB-402	[1] M22027.	Process / Resistance/ Temperature	Pt100/500/1000 Thermocouple J,K,N,E,R,S, $\pm 20$ mA, $\pm 10$ V, 60 mV	2	-	-
DHB-424	[1] M22028.	Process / Resistance/ Temperature	Pt100/500/1000 Thermocouple J,K,N,E,R,S, $\pm 20$ mA, $\pm 10$ V, 60 mV	4	1	RS-485

**Accesor-DI, Accessories digital instruments**

Type	Code	Description
Adap.Frontal 72x72 -> 96x96	[*] M29914.	Frontal adapter 72x72 > 96x96
Adap.Frontal 48x48 -> 72x72	[4] M29911.	Frontal adapter 48x48 > 72x72
Adap.Frontal 48x48 -> 96x96	[4] M29912.	Frontal adapter 48x48 > 96x96
Adap.Frontal 48x96 -> 96x96	[*] M29913.	Frontal adapter 48x48 > 96x96

## CODIFICATION TABLE

**DHB**

Code	Internal Code							
M 2 X X X X 0 0 X								
							↑ Delivery time	
Auxiliary supply	Standard (85... 253 V <sub>ac</sub> /V <sub>dc</sub> )						0	
	20 ... 40 V <sub>ac</sub> /V <sub>dc</sub>						1	-
	20 ... 40 V <sub>ac</sub> / 20 ... 60 V <sub>dc</sub>						2	1



	<b>CVE / CV-A</b>	<b>CPF</b>
	<b>CV-D</b>	<b>CCOS</b>
	<b>CCE / CC-A / TP-420 / TC-020 / TCB / TCM</b>	<b>CR2</b>
	<b>CC-D</b>	<b>CT-PT100</b>
	<b>CW</b>	<b>CUP</b>
	<b>CY</b>	<b>CFE / CF</b>


**CVE/CCE/CFE, Narrow section transducers**

Narrow-profile transducers, 230 Vac, 45 ... 65Hz.

Type	Code	System	Measure	Output type	Analog output
<b>AC Voltage transducer</b>					
CVE-A	[*] M25011.	-	Selecting 110 / 300 / 400 / 500 / 690 Vac	2	4...20mA
CVE-A-AP	[3] M25021.	-	Selecting 115 / 240 / 400 Vac	1	0...20mA
<b>AC Current transducer</b>					
CCE-A	[*] M25111.	-	Selecting 1 / 5 / 10 Aac	2	4...20mA
CCE-A-AP	[*] M25121.	-	Selecting 1 / 5 / 10 Aac	1, 3	0...20mA
<b>Frequency transducers</b>					
CFE	[3] M25511.	Network voltage: 50 ... 600 Vac	Selecting 0-100 / 45-55 / 55-65 / 45-65 / 47-53 / 380-240 / 360-440 / 340-460 Hz	2	4...20mA
CFE-AP	[3] M25521.	Selecting Network voltage: 115 / 240 / 400 Vac	Selecting 0-100 / 45-55 / 55-65 / 45-65 / 47-53 / 380-240 / 360-440 / 340-460 Hz	1	0...20mA

Specify ACCORDING TO THE CODE TABLE: 1. Code/ 2. Input range / 3. Output range / 4. Auxiliary power supply / 5. Specify the network voltage for CFE-AP. See the code table at the end of the section xxx-AP types external auxiliary supply not required. 4...20 mA output not possible.

**INPUTS**

Current AC	1 or 5, ... / 1 A or ... / 5 A
Current DC	500 $\mu$ A ... 10 A
Voltage AC	0 ... 690 V
Voltage DC	10 mV ... 500 V

**OUTPUTS**

Output 1	0...5 V, 0...10 V, 0...10 mA, 0...20 mA (by default)
Output 2	0,2...2 V, 2...10 V, 4...20 mA (by default)
Output 3	-10...0...10 V, -5...0...5 V, -20 mA...0...20 mA (by default)

**CV, Voltage transducer**

Type	Code	Measure	Output type	Analog output
<b>AC Voltage. Accuracy: <math>\pm</math> 0,2 % reading, 40...90 Hz</b>				
CV-A-AP Out1	[1] M25041.	0 ... 400 Vac	1	0...20mA
CV-A Out1	[1] M25031.	0 ... 690 Vac	1	0...20mA
CV-A Out2	[1] M25032.	0 ... 690 Vac	2	4...20mA
CV-A-RMS Out1	[1] M25051.	0 ... 690 Vac	1	0...20mA
CV-A-RMS Out2	[1] M25052.	0 ... 690 Vac	2	4...20mA
<b>DC Voltage. Auxiliary supply 230 V, 40...90 Hz, Accuracy: <math>\pm</math> 0,5 % reading</b>				
CV-D Out1,3	[1] M25061.	10 mV ... 500 Vdc	1, 3	0...20mA
CV-D Out2	[1] M25062.	10 mV ... 500 Vdc	2	4...20mA

**-AP** type: Accuracy:  $\pm$  0,5 % reading, 40...90 Hz. External auxiliary supply not required. Specify: Zero value, full scale and output type. See table at the end of This section

**CC, Current transducer**

Type	Code	Measure	Output type	Analog output
<b>AC Current. Accuracy: <math>\pm</math> 0,2 % reading, 40...90 Hz</b>				
CC-A Out1	[1] M25131.	... / 1 Aac or ... / 5 Aac	1	0...20mA
CC-A Out2	[*] M25132.	... / 1 Aac or ... / 5 Aac	2	4...20mA
CC-A-AP	[*] M25141.	... / 1 Aac or ... / 5 Aac	1	0...20mA
CC-A-RMS Out1	[1] M25151.	... / 1 Aac or ... / 5 Aac	1	0...20mA
CC-A-RMS Out2	[*] M25152.	... / 1 Aac or ... / 5 Aac	2	4...20mA
<b>C.C.Current. Auxiliary supply 230 V, 40...90 Hz, Accuracy: <math>\pm</math> 0,5 % reading.</b>				
CC-D Out1	[1] M25161.	500 $\mu$ A ... 10 Adc	1, 3	0...20mA
CC-D Out2	[1] M25162.	500 $\mu$ A ... 10 Adc	2	4...20mA

**-AP** type: Accuracy:  $\pm$  0,5 % reading, 40...90 Hz. External auxiliary supply not required. Specify: Zero value, full scale and output type. See table at the end of This section

Delivery time: [\*] immediate  
 [x] working weeks  
 [c] consult

**CW / CY, Power transducer**

## Active power transducer

Type	Code	System	Output type	Analog output
Active power. Auxiliary supply 230 V, 40...90 Hz, Accuracy: $\pm 0,5$ % reading				
CW-M Out1,3	[1] M25211.	Single-phase	1, 3	0...20mA
CW-M Out2	[1] M25212.	Single-phase	2	4...20mA
CW-TE Out1,3	[1] M25221.	Balanced three-phase	1, 3	0...20mA
CW-TE Out2	[1] M25222.	Balanced three-phase	2	4...20mA
CW-TA Out1,3	[1] M25231.	Unbalanced three-phase ARON (3 wires)	1, 3	0...20mA
CW-TA Out2	[1] M25232.	Unbalanced three-phase ARON (3 wires)	2	4...20mA
CW-TAN Out1,3	[1] M25241.	Unbalanced three-phase (4 wires)	1, 3	0...20mA
CW-TAN Out2	[1] M25242.	Unbalanced three-phase (4 wires)	2	4...20mA
Reactive power. Auxiliary supply 230 V, 40...90 Hz, Accuracy: $\pm 0,5$ % reading				
CY-M Out1,3	[1] M25251.	Single-phase	1, 3	0...20mA
CY-M Out2	[1] M25252.	Single-phase	2	4...20mA
CY-TE Sal.1,3	[1] M25261.	Balanced three-phase	1, 3	0...20mA
CY-TE Sal.2	[1] M25262.	Balanced three-phase	2	4...20mA
CY-TA Out1,3	[1] M25271.	Unbalanced three-phase ARON (3 wires)	1, 3	0...20mA
CY-TA Out2	[1] M25272.	Unbalanced three-phase ARON (3 wires)	2	4...20mA
CY-TAN Sal1,3	[1] M25281.	Unbalanced three-phase (4 wires)	1, 3	0...20mA
CY-TAN Out2	[1] M25282.	Unbalanced three-phase (4 wires)	2	4...20mA

Indicate: Zero value, fullscale, type of output, Un (between phases), In and fn. See table at the end of the section

**CPF / CCOS, Power Factor & Cos $\phi$  transducer**

Type	Code	System	Output type	Analog output
Cos $\phi$ . Auxiliary supply 230 V, 40...90 Hz, Accuracy: $\pm 0,5$ % reading				
CCOS-M Out1,3	[1] M25341.	Single-phase	1, 3	0...20mA
CCOS-M Out 2	[1] M25342.	Single-phase	2	4...20mA
CCOS-TE Out1,3	[1] M25351.	Balanced three-phase (3 wires)	1, 3	0...20mA
CCOS-TE Out2	[1] M25352.	Balanced three-phase (3 wires)	2	4...20mA
CCOS-TEN Sal1,3	[1] M25361.	Balanced three-phase (4 wires)	1, 3	0...20mA
CCOS-TEN Out2	[1] M25362.	Balanced three-phase (4 wires)	2	4...20mA
Power factor. Auxiliary supply 230 V, 40...90 Hz, Accuracy: $\pm 0,5$ % reading				
CPF-M Out1,3	[1] M25311.	Single-phase	1, 3	0...20mA
CPF-M Out2	[1] M25312.	Single-phase	2	4...20mA
CPF-TE Out1,3	[1] M25321.	Balanced three-phase (3 wires)	1, 3	0...20mA
CPF-TE Out2	[1] M25322.	Balanced three-phase (3 wires)	2	4...20mA
CPF-TEN Out1,3	[1] M25331.	Balanced three-phase (4 wires)	1, 3	0...20mA
CPF-TEN Out2	[1] M25332.	Balanced three-phase (4 wires)	2	4...20mA

Indicate: Zero value, fullscale, type of output, Un (between phases), In and fn. See table at the end of the section

**CF, Frequency transducers**

Type	Code	Measure	Output type	Analog output
Auxiliary supply 230 V, 40...90 Hz, Accuracy: $\pm 0,2$ % reading				
CF Out1	[3] M25531.	10 ... 660 Vac 0 ... 10 kHz.	1	0...20mA
CF Out2	[1] M25532.	10 ... 660 Vac 0 ... 10 kHz.	2	4...20mA

Specify: zero value, full scale, output type, Un (between phases), In and fn, see table at the end of This section

**Temp, Ohm, aislam, proceso, Transducers**

Type	Code	Measure	Output type	Analog output
Galvanic insulator transducer				
CC-G	[*] M25610.	500 $\mu$ A ... 10 Adc	1	0...20mA
Leakage current				
CC-WG Out2	[3] M25631.	0 ... 3 Aac	2	4...20mA
Resistance				
CR2 Out 1	[1] M25641.	1 ... 200 k $\Omega$	1, 3	0...20mA
CR2 Out 2	[1] M25642.	1 ... 200 k $\Omega$	2	4...20mA
Process universal				
CUP Out 2	[1] M25612.	Configurable	1,2,3	0...20mA/4...20mA
CT-PT100 Out1,3	[1] M25651.	According probe PT-100	1, 3	0...20mA
CT-PT100 Out2	[*] M25652.	According probe PT-100	2	4...20mA

Indicate: Zero value, fullscale and type of output. See table at the end of the section



**TI, Current transformer with converter 4...20 mA**

Type	TI-420			TP-420		TCM-420	TCB-420	
	TI-420-35	TI-420-70	TI-420-105	TP-420-23	TP-420-58	TCM-420-25	TCB-420-35	TCB-420-70
ø (mm)	35	70	105	-	-	25	35	70
Flat strip(mm)	-	-	-	20 x 30	50 x 80	-	-	-
Size (mm) width xheight xdepth	100x79x33	130x110x33	170x146x33	110x89x58	145x114x50	70x87x70	166x79x33	196x110x33
	10...28 Vdc supply, Output 4...20 mA					Output internal supply 4...20 mA (230 Vac Auxiliary supply)		
A	Code	Code	Code	Code	Code	Code	Code	Code
2.5	[1] M70811.					[2] M71041.	[3] M71011.	
5	[*] M70812.			[*] M70211.		[*] M71042.	[*] M71012.	
10	[*] M70813.			[*] M70212.		[*] M71043.	[*] M71013.	
20	[*] M70814.			[*] M70213.		[*] M71044.	[*] M71014.	
50	[*] M70815.			[*] M70214.		[*] M71045.	[*] M71015.	
100	[*] M70816.	[*] M70821.		[*] M70215.	[*] M70221.	[*] M71046.	[*] M71016.	[1] M71021.
200				[*] M70216.		[*] M71047.		
250	[*] M70817.	[*] M70822.	[1] M70831.	[*] M70217.	[*] M70222.		[*] M71017.	[*] M71022.
500		[*] M70823.	[1] M70832.	[*] M70218.	[*] M70223.			[*] M71023.
750		[*] M70824.	[1] M70833.		[*] M70224.			[*] M71024.
1000			[1] M70834.					
1500			[1] M70835.					

**TC-420, Current transformers with converter 4...20 mA or 0...20 mA**

Type	TC5-420	TC6-420	TC8-420	TC6-020	TC8-020
ø (mm)	20	28	44	28	44
Flat strip(mm)	25 x 5	40 x 10	60 x 12	40 x 10	60 x 12
Size (mm) width xheight xdepth	58x70x32	64x80.5x44	84.5x102x50	64x80.5x44	84.5x102x50
	Output 4...20 mA, ext. supply 7,5...36 Vdc			Output 0...20 mA	
A	Code	Code	Code	Code	Code
5	[*] M72112.				
10	[*] M72113.				
20	[*] M72114.				
50		[*] M72131.		[*] M72031.	
100		[*] M72132.		[*] M72032.	
200		[*] M72134.		[*] M72034.	
300		[*] M72136.		[*] M72036.	
500			[*] M72151.		[3] M72051.
1000			[*] M72152.		[1] M72052.
1500			[*] M72153.		[*] M72053.

Delivery time: [\*] immediate  
 [x] working weeks  
 [c] consult



CODIFICATION TABLE

Narrow section transducers

Code	Internal code				Delivery time
M 2 X X X X 0 0	X	X	X	X	
Voltage CVE-A	Standard (300 V)	0			-
	110 V	1			2
	400 V	2			2
	500 V	3			2
	690 V	4			2
Voltage CVE-A-AP	Standard (230 V)	0			-
	110 V	1			2
	400 V	2			2
Current	Standard (5 A)	0			-
	1 A	1			2
	10 A	4			2
Frequency	Standard (45...55 Hz)	0			-
	55...65 Hz	1			2
	47...53 Hz	2			2
	45...65 Hz	3			2
	0...100 Hz	4			2
	380...420 Hz	5			2
	360...440 Hz	6			2
	340...460 Hz	7			2
CVE-A, CCE-A, CFE	Standard (4...20 mA)	0			-
	0...20 mA	1			2
	0...10 V	2			2
	2...10 V	3			2
CVE-A-AP, CCE-A-AP, CFE-AP	Standard (0...20 mA)	0			-
	0...10 V	1			2
Auxiliary supply	Standard (220...240 V)	0			-
	380...400 Vca 40/60 Hz	3			2
	18...36 Vdc	7			2
Net. voltage	Standard (230 V)		0	0	2
	110 V		0	1	2
CFE-AP)	400 V		0	2	2

For other values consult

Transducers

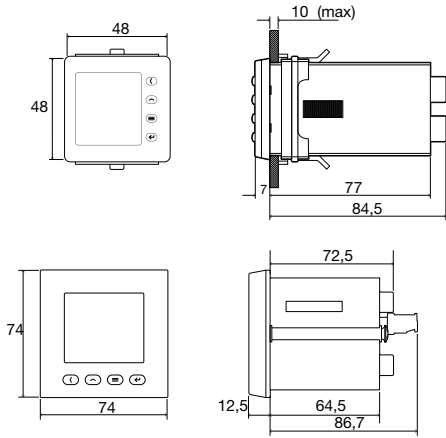
Code	Internal code				Delivery time
M 2 X X X X 0 0	X	X	X		
AC Voltage	Standard (300 V)	0			-
	110 V	1			1
	400 V	2			1
	500 V	3			1
	690 V	4			1
AC Current	Standard (5 A)	0			-
	1 A	1			1
	10 A	4			1
DC Voltage	Standard (10 V)	0			-
	60 mV	1			1
	1 V	2			1
	100 V	3			1
	500 V	4			1
DC Current	Standard (20 mA)	0			-
	200 mA	1			1
	1 A	2			1
	10 A	3			1
Power, power factor, cos φ (V, A)	300 V, .../5 A	N			1
	110 V, .../5 A	1			1
	400 V, .../5 A	2			1
	500 V, .../5 A	3			1
	600 V, .../5 A	4			1
	300 V, .../1 A	5			1
	110 V, .../1 A	6			1
	400 V, .../1 A	7			1
	500 V, .../1 A	8			1
	600 V, .../1 A	9			1
Leakage current, process universal		0			-
Resistance	Standard ( 20 Ω)	0			-
	200 Ω	1			1
	2 kΩ	2			1
	20 kΩ	3			1
Temperature	Standard (-200...+200 °C)	0			-
	-200...+800 °C	1			1
Frequency	Standard (45...55 Hz)	0			-
	55...65 Hz	1			1
	47...53 Hz	2			1
	57...63 Hz	3			1
	0...100 Hz	4			1
Outputs 1, 3	Standard (20 mA)	0			-
	0...1 mA	1			1
	0...10 mA	2			1
	2 V	3			1
	5 V	4			1
	0...10 V	5			1
	-20...0...20 mA	6			1
	-10...0...10 V	7			1
	-5...0...5 V	8			1
Outputs 2	Standard (4...20 mA)	0			-
	2...10 V	2			1
Auxiliary supply	Standard (220...240 V)	0			-
	100...120 Vac	1			2
	380...400 Vca 40/60 Hz	3			2
	18...36 Vdc	7			2
	40...170 Vdc	9			2

Delivery time: [\*] immediate  
[x] working weeks  
[c] consult

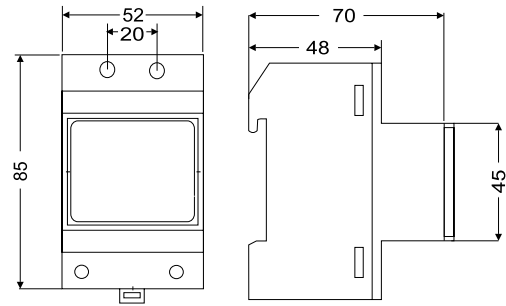


## Dimensions

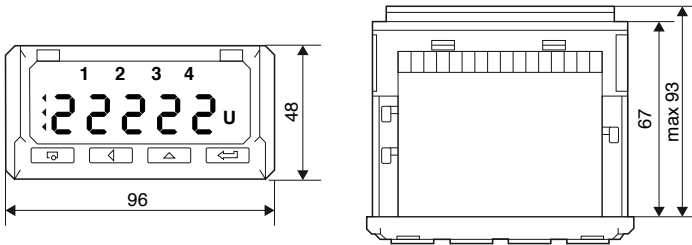
### DCB



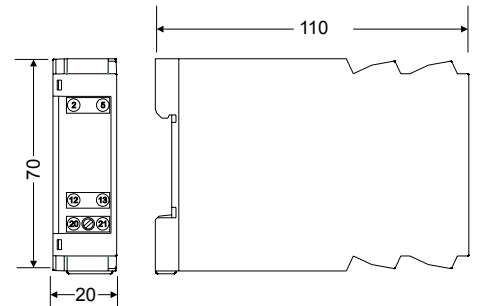
### DM 45



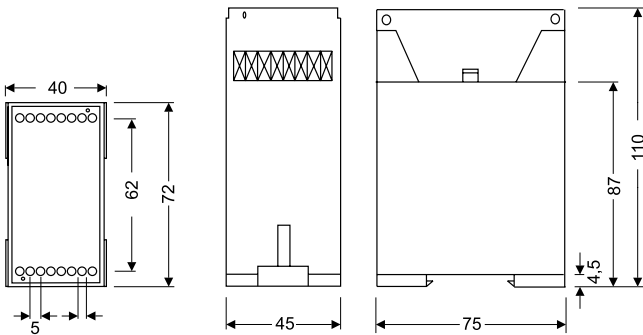
### DHB



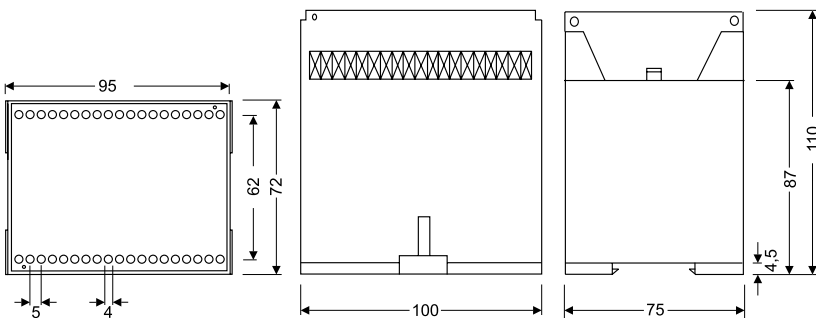
### CVE / CEE / CCE / CFE



### CV-A / CV-D / CC-A / CC-D / CR2 / CT-PT100 / CUP / CF



### CW / CY / CPF / CCOS / CFD



Delivery time: [\*] immediate  
 [x] working weeks  
 [c] consult





**Analogue instrument selection table**

	Measurement system	Assembly	Specifications	Range	Size mm	Accuracy class	Scale angle	Scale extension	Type		
Ammeters	AC 	Panel	Miliammeter	100...600 mA	48 x 48, 72 x 72, 96 x 96, 144 x 144	1,5	90°		EC		
			-	5...100 A, .../5A			240°	P2	EC		
			-	.../5A	72 x 72, 96 x 96					EZC	
			With switch	.../5A				P1	EC FA		
			With relays	.../5A	96 x 96					CEC	
			DIN rail	-	5...60 A, .../5A		85 x 52		P2	EM 45	
Ammeters	CC 	Panel	-	5...60 A, .../60 mV	48 x 48, 72 x 72, 96 x 96, 144 x 144	1,5	90°		BC		
			With relays	... / 60 mV	96 x 96			P1	CBC		
			DIN rail	-	5...60 A, .../60 mV		85 x 52			BM 45	
Voltmeters	AC 	Panel	-	150 ... 600 V, .../110 V	48 x 48, 72 x 72, 96 x 96, 144 x 144	1,5	90°		EC		
			-	250 V, 500 V	72 x 72, 96 x 96		240°		EZC		
			-	150 ... 600 V				P1	EC F		
			With relays	150 ... 600 V, .../110 V	96 x 96				CEC		
			DIN rail	-	300 V, 500 V, .../110 V		85 x 52			EM 45	
			Voltmeters	CC 	Panel		-	0...600 V	48 x 48, 72 x 72, 96 x 96, 144 x 144	1,5	90°
With relays	... / 60 mV	96 x 96					P1	CBC			
DIN rail	-	15...150 V				85 x 52			BM45		
Process indicators	CC 	Panel	-	0...10 V, 0/4... 20 mA	48 x 48, 72 x 72, 96 x 96, 144 x 144	1,5	90°		P1 BC		
			-	0...10 V, 4... 20 mA, .../60 mV			240°		P1 ZC		
			DIN rail	-	0...10 V, 0/4... 20 mA		85 x 52			90° BM	
Maximeters	-	Panel	Bimetallic			3			P1,2 MC		
			Bimetallic + HM	.../5 A					P2 EMC		
			DIN rail	Bimetallic			85 x 52			P1,2 MMC 45	
Sheet	Needle	Panel	-		48 x 48, 72 x 72, 96 x 96, 144 x 144	0,5	90°		HC		
			-		96 x 96, 144 x 144		240°		HZC		
		DIN rail	-	45...65 Hz depending type	85 x 52			90°	-	HM	
Sheet	Sheets	Panel	-		72 x 72, 96 x 96, 144 x 144				HLC		
Wattmeter	Panel	-	Single-phase	400 V, .../5 A	96 x 96, 144 x 144	1,5	90°	P1	WMC		
			Three-phase						WTC		
Varmeter	Panel	-	Single-phase	400 V, .../5 A	96 x 96, 144 x 144	1,5	90°	P1	YMC		
			Three-phase						YTC		
Phase-meters	Electronic	Panel	Single-phase			1,5	90°	P1	FEMC		
			Three-phase	cos φ 0,5 - 1 - 0,5					FETC		
			Single-phase						240°		FMZ
			Three-phase		96 x 96, 144 x 144						FTZ
	Induction	Panel	-	Single-phase	cos φ 0 - 1 - 0					PIC	
				Three-phase	cos φ 0 - 1 - 0			90°		PIC	