

TRANSDUCERS TEMA



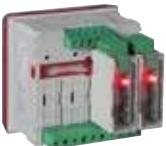


Transducers

Selection table

							
Transducers	TEMA I	TEMA I4	TEMA I4e	TEMA U	TEMA U4	TEMA U4e	
Technical notes	NT546	NT554	NT628	NT547	NT555	NT629	
Network	single phase	single phase	single phase	single phase	single phase	single phase	
Measuring	alternating current	alternating current	alternating current	alternating voltage	alternating voltage	alternating voltage	
Measuring type	according R.M.S.	according R.M.S.	true R.M.S.	according R.M.S.	according R.M.S.	true R.M.S.	
Wave form	sinusoidal form factor 1,11	sinusoidal form factor 1,11	distorted sinusoidal	sinusoidal form factor 1,11	sinusoidal form factor 1,11	distorted sinusoidal	
a.c. auxilliary supply	self-supplied	48 - 115 - 230V _{a.c.}	48 - 115 - 230V _{a.c.}	self-supplied	48 - 115 - 230V _{a.c.}	48 - 115 - 230V _{a.c.}	
d.c. auxilliary supply	-	20...150 – 150...250V _{d.c.}	20...150 – 150...250V _{d.c.}	-	20...150 – 150...250V _{d.c.}	20...150 – 150...250V _{d.c.}	
Current rated value	0...5 - 0...10 - 0...20mA	0...5/10/20mA - 4...20mA selectable	0...5/10/20mA - 4...20mA selectable	0...5 - 0...10 - 0...20mA	0...5/10/20mA - 4...20mA selectable	0...5/10/20mA - 4...20mA selectable	
Voltage rated value	0...5 - 0...10V	0...5/10V - 2...10V selectable	0...5/10V - 2...10V selectable	0...5 - 0...10V	0...5/10V - 2...10V selectable	0...5/10V - 2...10V selectable	
Response time	≤300ms	≤300ms	≤100ms 50ms (options)	≤300ms	≤300ms	≤100ms 50ms (options)	
Accuracy	0,5 (20...120% ln)	0,5	0,5	0,5 (20...120% Un)	0,5	0,5	
Current input	1 - 1,2 - 5 - 6A	1 - 1,2 - 5 - 6A	1 - 1,2 - 5 - 6A	-	-	-	
Voltage input	-	-	-	100 - 110V 120 - 250V 400 - 440V 120 - 250V 400 - 440V other value on request of 50...500V	100 - 110V 120 - 250V 400 - 440V 500V other value on request of 50...500V	100 - 110V 120 - 250V 400 - 440V 500V other value on request of 50...500V	
Frequency	47...63Hz	47...63Hz	47...63Hz	47...63Hz	47...63Hz	47...63Hz	
Dimensions	2 module DIN	2 module DIN	2 module DIN	2 module DIN	2 module DIN	2 module DIN	2 module DIN

				
CT with transducers	TT35	TT35A	HT35A	
Technical notes	NT433	NT434	NT500	
Passing cable hole dimensions	35 mm	35 mm	35 mm	
(unidirectional) d.c. rated current	-	-	100-150-200-250-300-400A	
a.c. selectable radet current	5-10-15-20-25-30-35-40-45A 15-30-45-60-75-90-105-120-135A 25-50-75-100-125-150-175-200-225A 50-100-150-200-250-300-350-400-450A	5-10-15-20-25-30-35-40-45A 15-30-45-60-75-90-105-120-135A 25-50-75-100-125-150-175-200-225A 50-100-150-200-250-300-350-400-450A	-	
Output	4...20mA (2 wire technology)	0...20mA - 4...20mA - 0...10V (4 wire technology)	0...20mA - 4...20mA selectable 0...10V	
a.c. auxilliary supply	-	115 – 230V _{a.c.}	48 - 115 - 230 - 240V _{a.c.}	
d.c. auxilliary supply	10...34V _{d.c.}	-	20...150V _{d.c.}	
Extra d.c.auxilliary supply	-	-	•	

				
	TEMA Pr4	TEMA fP	TEMA SG	
	NT848	NT514	NT229	NT228
single phase - three phase	single phase - three phase		-	-
programmable	apparent - reactive-active power, power factor, phase angle, average power, frequency	direct current or voltage	direct current signal separator	direct current
according R.M.S.	true R.M.S.	average value		average value
	distorted sinusoidal	direct with $\leq 10\%$ alternating component		direct or pulsating with frequency $\geq 10\text{Hz}$
80...265V _{a.c.}	115 – 230V _{a.c.}	48 - 115 – 230 and 240V _{a.c.}		115 – 230 - 240V _{a.c.}
110...300V _{d.c.} – 11...60V _{d.c.}	20...150 – 150...250V _{d.c.}	20...150 – 150...250V _{d.c.}		20...30 - 40...60 - 90...140 - 180...250V _{d.c.}
0...20mA and 4...20mA	0...5/10/20 - 4...20 \pm 5/10/20mA selectable	0...5 - 0...20 - 4...20mA		0...20 - 4...20mA \pm 20 - 4...20mA 0...20 - 4...20mA
	0...10 \pm 10 - 1...5V selectable	0...10V		0...10V \pm 10V 0...10V \pm 10V
$\leq 300\text{ms}$	$\leq 300\text{ms}$ - 100ms (options)	$\leq 150\text{ms}$	$\leq 150\text{ms}$	$\leq 300\text{ms}$
0,5	0,5 (power) - 1(cos) - $\pm 0,2\text{Hz}$ (frequency)	0,5		0,5
5A or 1A	direct or by external CT (with programmables ratios)	4...20mA or other value on request from 1...500mA	0...5 - 0...20 - 4...20mA	4...20mA or other value on request from 400 μ A...1,5A (unidirectional) value on request from 250 μ A...750mA (bidirectional) -
	400V (phase-phase) 50...300V (single phase) direct or from VT programmable ratio	0...60mV or other value on request from 50mV...400V	-	- 1...5 - 2...10V or other value on request from 10mV...600V (unidirectional) value on request from 5mV...300V (bidirectional)
47...63Hz	45...65Hz			
96x96mm	8 module DIN	4 module DIN		6 module DIN

			
	HT80A	HT35BM	HT35BS
	NT501	NT763	NT763
	80 mm	35 mm	35 mm
	400-500-600-800-1000A	selectable 10-20-30-40-50-60-70-80-90-100A	selectable 10-20-30-40-50-60-70-80-90-100A
	-		
	0...20mA - 4...20mA selectable 0...10V		
	48 - 115 – 230V _{a.c.}		
	20...150V _{d.c.}		
	*		

Transducers

Single phase alternating current transducer



To measure average value, calibration according RMS value
Input on CT/1A - CT/5A

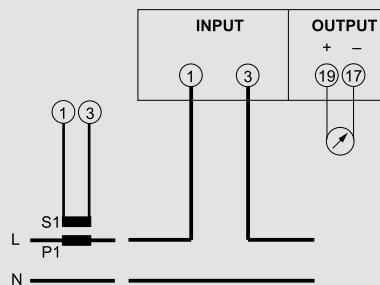
Cat. Nos.	Tema I			
	Input (A)	Output (mA)	Output (V)	Auxiliary supply
TM2IA12	0...1	0...5	-	self-supplied
TM2IA13	0...1	0...10	-	self-supplied
TM2IA14	0...1	0...20	-	self-supplied
TM2IA16	0...1	-	0...5	self-supplied
TM2IA18	0...1	-	0...10	self-supplied
TM2IA22	0...1,2	0...5	-	self-supplied
TM2IA23	0...1,2	0...10	-	self-supplied
TM2IA24	0...1,2	0...20	-	self-supplied
TM2IA26	0...1,2	-	0...5	self-supplied
TM2IA28	0...1,2	-	0...10	self-supplied
TM2IA32	0...5	0...5	-	self-supplied
TM2IA33	0...5	0...10	-	self-supplied
TM2IA34	0...5	0...20	-	self-supplied
TM2IA36	0...5	-	0...5	self-supplied
TM2IA38	0...5	-	0...10	self-supplied
TM2IA42	0...6	0...5	-	self-supplied
TM2IA43	0...6	0...10	-	self-supplied
TM2IA44	0...6	0...20	-	self-supplied
TM2IA46	0...6	-	0...5	self-supplied
TM2IA48	0...6	-	0...10	self-supplied

Technical features

TECHNICAL NOTES	NT546
INPUT	
Current rating In	1 - 1,2 - 5 - 6A
Frequency rating	50 Hz (47...63Hz)
Instantaneous overload	20In/1s
Continuous overload	3In
Rated burden	≤2,5VA
OUTPUT	
Type	unidirectional, real or live zero for variable output load
Accuracy (EN 60688)	class 0,5 (20...120% In)
Output load	≤ 500Ω (20mA) ≤ 1kΩ (10mA) ≤ 2kΩ (5mA) ≥ 100kΩ (5V) ≥ 200kΩ (10V)
Response time	≤ 300ms
AUXILIARY SUPPLY	
Nominal voltage	Taken from measurement (self-supplied)
MECHANICAL FEATURES	
Housing	2 module DIN 43880
Housing material	self-extinguishing makrolon
Protection degree	IP20 terminals/ IP50 front frame
Connections type	screw terminals
Connections	for cable up to 4mm ²
ENVIRONMENTAL CONDITIONS	
Nominal temperature range	0...45°C
Storage and transport range	-25...70°C
Suitable for tropical climates	yes
Relative humidity	up to 75%
Max.power dissipation*	≤2W

* for switchboard thermal calculation

Wiring diagrams



Transducers

Single phase alternating current transducer with selectable output



To measure average value, calibration according RMS value

Input on CT/1A - CT/5A

Output selectable on field (7 ranges)

Selectable values: 0...5/10/20mA - 4...20mA
0...5/10V - 2...10V

Cat. Nos.

Tema I4

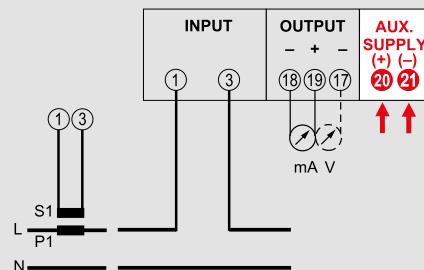
	Input (A)	Output	Auxiliary supply
TM3I210	0...1	selectable	115Vac
TM3I220	0...1,2	selectable	115Vac
TM3I230	0...5	selectable	115Vac
TM3I240	0...6	selectable	115Vac
TM3I310	0...1	selectable	230Vac
TM3I320	0...1,2	selectable	230Vac
TM3I330	0...5	selectable	230Vac
TM3I340	0...6	selectable	230Vac
TM3IH10	0...1	selectable	20...150Vdc+48Vac
TM3IH20	0...1,2	selectable	20...150Vdc+48Vac
TM3IH30	0...5	selectable	20...150Vdc+48Vac
TM3IH40	0...6	selectable	20...150Vdc+48Vac
TM3IL10	0...1	selectable	150...250Vdc
TM3IL20	0...1,2	selectable	150...250Vdc
TM3IL30	0...5	selectable	150...250Vdc
TM3IL40	0...6	selectable	150...250Vdc

Technical features

TECHNICAL NOTES	NT554
INPUT	
Current rating In	1 - 1,2 - 5 - 6A
Frequency rating	50 Hz (47...63Hz)
Instantaneous overload	20In/1s
Continuous overload	3In
Rated burden	$\leq 0,2\text{VA}$
OUTPUT	
Type	unidirectional, real or live zero for variable output load
Accuracy (EN 60688)	class 0,5
Output load	$\leq 750\Omega$ (20mA) $\leq 1,5\text{k}\Omega$ (10mA) $\leq 3\text{k}\Omega$ (5mA) $\geq 5\text{k}\Omega$ (5-10V)
Response time	$\leq 300\text{ms}$
AUXILIARY SUPPLY	
Rated value Uaux	48 - 115 - 230Vac 20...150Vdc - 150...250Vdc
Rated burden	$\leq 3\text{VA}$ (Vac) - $\leq 1,5\text{W}$ (Vdc)
MECHANICAL FEATURES	
Housing	2 module DIN 43880
Housing material	self-extinguishing makrolon
Protection degree	IP20 terminals/ IP40 front frame
Connections type	screw terminals
Connections	for cable up to 4mm ²
ENVIRONMENTAL CONDITIONS	
Nominal temperature range	0...45°C
Storage and transport range	-25...70°C
Suitable for tropical climates	yes
Relative humidity	up to 75%
Max.power dissipation*	$\leq 2,6\text{W}$

* for switchboard thermal calculation

Wiring diagrams



Transducers

TRMS Single phase alternating current transducer with selectable output



To measure TRUE RMS value

Input by CT/1A - CT/5A

Output selectable on field (7 ranges)

Selectable values: 0...5/10/20mA - 4...20mA
0...5/10V - 2...10V

Cat. Nos.

Tema I4e

	Input (A)	Output	Auxiliary supply
TM4I210	0...1	selectable	115Vac
TM4I220	0...1,2	selectable	115Vac
TM4I230	0...5	selectable	115Vac
TM4I240	0...6	selectable	115Vac
TM4I310	0...1	selectable	230Vac
TM4I320	0...1,2	selectable	230Vac
TM4I330	0...5	selectable	230Vac
TM4I340	0...6	selectable	230Vac
TM4IH10	0...1	selectable	20...150Vdc+48Vac
TM4IH20	0...1,2	selectable	20...150Vdc+48Vac
TM4IH30	0...5	selectable	20...150Vdc+48Vac
TM4IH40	0...6	selectable	20...150Vdc+48Vac
TM4IL10	0...1	selectable	150...250Vdc
TM4IL20	0...1,2	selectable	150...250Vdc
TM4IL30	0...5	selectable	150...250Vdc
TM4IL40	0...6	selectable	150...250Vdc

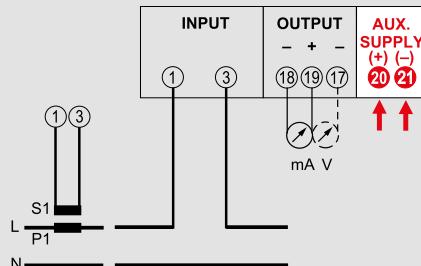
NOTE: Executions available on all models, response time 50msec, add 2 at the end of product code.

Technical features

TECHNICAL NOTES	NT628
INPUT	
Current rating In	1 - 1,2 - 5 - 6A
Other value on request	
Frequency rating	50 Hz (47...63Hz)
Instantaneous overload	20In/1s
Continuous overload	3In
Rated burden	≤2VA
OUTPUT	
Type	unidirectional, real or live zero for variable output load
Accuracy (EN 60688)	class 0,5
Output load	≤ 750Ω (20mA) ≤ 1,5kΩ (10mA) ≤ 3kΩ (5mA) ≥ 5kΩ (5-10V)
Response time	≤ 100ms
AUXILIARY SUPPLY	
Rated value Uaux	48 - 115 - 230Vac 20...150Vdc - 150...250Vdc
Rated burden	≤3VA (Vac) - ≤1,5W (Vdc)
MECHANICAL FEATURES	
Housing	2 module DIN 43880
Housing material	self-extinguishing makrolon
Protection degree	IP20 terminals/ IP40 front frame
Connections type	screw terminals
Connections	for cable up to 4mm ²
ENVIRONMENTAL CONDITIONS	
Nominal temperature range	0...45°C
Storage and transport range	-25...70°C
Suitable for tropical climates	yes
Relative humidity	up to 75%
Max.power dissipation*	≤2,6W

* for switchboard thermal calculation

Wiring diagrams



Transducers

Single phase alternating voltage transducer



To measure average value, calibration according RMS value
Direct input up to 440V or by VT

Cat. Nos.

Tema U

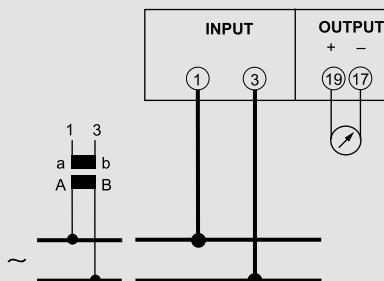
	Input (V)	Output (mA)	Output (V)	Auxiliary supply
TM2UA12	0...100	0...5	-	self-supplied
TM2UA13	0...100	0...10	-	self-supplied
TM2UA14	0...100	0...20	-	self-supplied
TM2UA16	0...100	-	0...5	self-supplied
TM2UA18	0...100	-	0...10	self-supplied
TM2UA22	0...110	0...5	-	self-supplied
TM2UA23	0...110	0...10	-	self-supplied
TM2UA24	0...110	0...20	-	self-supplied
TM2UA26	0...110	-	0...5	self-supplied
TM2UA28	0...110	-	0...10	self-supplied
TM2UA32	0...120	0...5	-	self-supplied
TM2UA33	0...120	0...10	-	self-supplied
TM2UA34	0...120	0...20	-	self-supplied
TM2UA36	0...120	-	0...5	self-supplied
TM2UA38	0...120	-	0...10	self-supplied
TM2UA72	0...250	0...5	-	self-supplied
TM2UA73	0...250	0...10	-	self-supplied
TM2UA74	0...250	0...20	-	self-supplied
TM2UA76	0...250	-	0...5	self-supplied
TM2UA78	0...250	-	0...10	self-supplied
TM2UA92	0...400	0...5	-	self-supplied
TM2UA93	0...400	0...10	-	self-supplied
TM2UA94	0...400	0...20	-	self-supplied
TM2UA96	0...400	-	0...5	self-supplied
TM2UA98	0...400	-	0...10	self-supplied
TM2UAA2	0...440	0...5	-	self-supplied
TM2UAA3	0...440	0...10	-	self-supplied
TM2UAA4	0...440	0...20	-	self-supplied
TM2UAA6	0...440	-	0...5	self-supplied
TM2UAA8	0...440	-	0...10	self-supplied

Technical features

TECHNICAL NOTES	NT547
INPUT	
Voltage rating Un	100 - 110 - 120 - 250 - 400 - 440V
Frequency rating	50 Hz (47..63Hz)
Instantaneous overload	2Un/1s (max 450V)
Rated burden	≤2,5VA
OUTPUT	
Type	unidirectional, real zero for variable output load
Accuracy (EN 60688)	class 0,5 (20...120%Un)
Output load	≤ 500 Ω (20 mA) ≤ 1 kΩ (10mA) ≤ 2 kΩ (5mA) ≥ 100kΩ (5V) ≥ 200kΩ (1V)
Response time	≤ 300ms
AUXILIARY SUPPLY	
Nominal voltage	Taken from measurement (self-supplied)
MECHANICAL FEATURES	
Housing	2 module DIN 43880
Housing material	self-extinguishing makrolon
Protection degree	IP20 terminals/ IP50 front frame
Connections type	screw terminals
Connections	for cable up to 4mm ²
ENVIRONMENTAL CONDITIONS	
Nominal temperature range	0...45°C
Storage and transport range	-25...70°C
Suitable for tropical climates	yes
Relative humidity	up to 75%
Max.power dissipation*	≤2W

* for switchboard thermal calculation

Wiring diagrams



Transducers

Single phase alternating voltage transducer with selectable output



To measure average value, calibration according RMS value
 Direct input up to 500V or by VT
 Output selectable on field (7 ranges)
 Selectable values: 0...5/10/20mA - 4...20mA
 0...5/10V - 2...10V

Cat. Nos.

Tema U4

	Input (V)	Output	Auxiliary supply
TM3U210	0...100	selectable	115Vac
TM3U220	0...110	selectable	115Vac
TM3U230	0...120	selectable	115Vac
TM3U270	0...250	selectable	115Vac
TM3U290	0...400	selectable	115Vac
TM3U2A0	0...440	selectable	115Vac
TM3U2C0	0...500	selectable	115Vac
TM3U2P0	0...50<>500V *	selectable	115Vac
TM3U310	0...100	selectable	230Vac
TM3U320	0...110	selectable	230Vac
TM3U330	0...120	selectable	230Vac
TM3U370	0...250	selectable	230Vac
TM3U390	0...400	selectable	230Vac
TM3U3A0	0...440	selectable	230Vac
TM3U3C0	0...500	selectable	230Vac
TM3U3P0	0...50<>500V *	selectable	230Vac
TM3UH10	0...100	selectable	20...150Vdc+48Vac
TM3UH20	0...110	selectable	20...150Vdc+48Vac
TM3UH30	0...120	selectable	20...150Vdc+48Vac
TM3UH70	0...250	selectable	20...150Vdc+48Vac
TM3UH90	0...400	selectable	20...150Vdc+48Vac
TM3UHA0	0...440	selectable	20...150Vdc+48Vac
TM3UHC0	0...500	selectable	20...150Vdc+48Vac
TM3UHP0	0...50<>500V *	selectable	20...150Vdc+48Vac
TM3UL10	0...100	selectable	150...250Vdc
TM3UL20	0...110	selectable	150...250Vdc
TM3UL30	0...120	selectable	150...250Vdc
TM3UL70	0...250	selectable	150...250Vdc
TM3UL90	0...400	selectable	150...250Vdc
TM3ULA0	0...440	selectable	150...250Vdc
TM3ULC0	0...500	selectable	150...250Vdc
TM3ULP0	0...50<>500V *	selectable	150...250Vdc

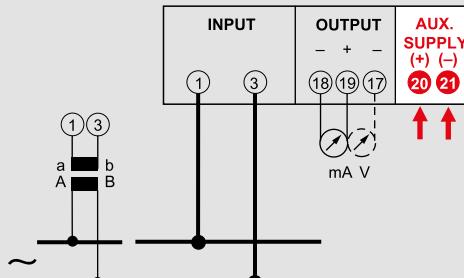
* In addition to the product code pls. indicate the input value corresponding to output

Technical features

TECHNICAL NOTES	NT555
INPUT	
Voltage rating Un Other value on request	100 - 110 - 120 - 250 - 400 - 500V
Frequency rating	50 Hz (47...63Hz)
Instantaneous overload	2Un/1s (max 600V)
Rated burden	≤0,5VA
OUTPUT	
Type	unidirectional, real or live zero for variable output load
Accuracy (EN 60688)	class 0,5
Rated value	selectable by dip switch (7 ranges)
Output load	≤ 750Ω (20mA) ≤ 1,5kΩ (10mA) ≤ 3kΩ (5mA) ≥ 5kΩ (5-10V)
Response time	≤ 300ms
AUXILIARY SUPPLY	
Rated value Uaux	48 - 115 - 230Vac 20...150Vdc - 150...250Vdc
Rated burden	≤3VA (Vac) ≤1,5W (Vdc)
MECHANICAL FEATURES	
Housing	2 module DIN 43880
Housing material	self-extinguishing makrolon
Protection degree	IP20 terminals/ IP40 front frame
Connections type	screw terminals
Connections	for cable up to 4mm ²
ENVIRONMENTAL CONDITIONS	
Nominal temperature range	0...45°C
Storage and transport range	-25...70°C
Suitable for tropical climates	yes
Relative humidity	up to 75%
Max.power dissipation*	≤2,6W

* for switchboard thermal calculation

Wiring diagrams



Transducers

TRMS Single phase alternating voltage transducer with selectable output



To measure TRUE RMS value
Direct input up to 500V or by VT
Output selectable on field (7 ranges)
Selectable values: 0...5/10/20mA - 4...20mA
0...5/10V - 2...10V

Cat. Nos.	Tema U4e		
	Input (V)	Output	Auxiliary supply
TM4U210	0...100	selectable	115Vac
TM4U220	0...110	selectable	115Vac
TM4U230	0...120	selectable	115Vac
TM4U270	0...250	selectable	115Vac
TM4U290	0...400	selectable	115Vac
TM4U2A0	0...440	selectable	115Vac
TM4U2C0	0...500	selectable	115Vac
TM4U2P0	0...50<>500V *	selectable	115Vac
TM4U310	0...100	selectable	230Vac
TM4U320	0...110	selectable	230Vac
TM4U330	0...120	selectable	230Vac
TM4U370	0...250	selectable	230Vac
TM4U390	0...400	selectable	230Vac
TM4U3A0	0...440	selectable	230Vac
TM4U3C0	0...500	selectable	230Vac
TM4U3P0	0...50<>500V *	selectable	230Vac
TM4UH10	0...100	selectable	20...150Vdc+48Vac
TM4UH20	0...110	selectable	20...150Vdc+48Vac
TM4UH30	0...120	selectable	20...150Vdc+48Vac
TM4UH70	0...250	selectable	20...150Vdc+48Vac
TM4UH90	0...400	selectable	20...150Vdc+48Vac
TM4UHA0	0...440	selectable	20...150Vdc+48Vac
TM4UHC0	0...500	selectable	20...150Vdc+48Vac
TM4UHP0	0...50<>500V *	selectable	20...150Vdc+48Vac
TM4UL10	0...100	selectable	150...250Vdc
TM4UL20	0...110	selectable	150...250Vdc
TM4UL30	0...120	selectable	150...250Vdc
TM4UL70	0...250	selectable	150...250Vdc
TM4UL90	0...400	selectable	150...250Vdc
TM4ULA0	0...440	selectable	150...250Vdc
TM4ULC0	0...500	selectable	150...250Vdc
TM4ULP0	0...50<>500V *	selectable	150...250Vdc

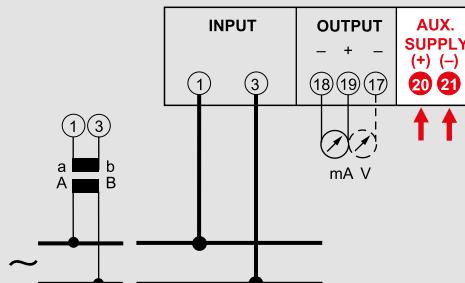
* In addition to the product code pls. indicate the input value corresponding to output
NOTE: Executions available on all models, response time 50msec, add 2 at the end of product code.

Technical features

TECHNICAL NOTES	NT629
INPUT	
Current rating In	1 - 1,2 - 5 - 6A
Frequency rating	50 Hz (47...63Hz)
Instantaneous overload	2Un/1s (max 600V)
Continuous overload	3In
Rated burden	≤0,5VA
OUTPUT	
Type	unidirectional, real or live zero for variable output load
Accuracy (EN 60688)	class 0,5
Output load	≤ 750Ω (20mA) ≤ 1,5kΩ (10mA) ≤ 3kΩ (5mA) ≥ 5kΩ (5-10V)
Response time	≤ 100ms
AUXILIARY SUPPLY	
Rated value Uaux	48 - 115 - 230Vac 20...150Vdc - 150...250Vdc
Rated burden	≤3VA (Vac) ≤1,5W (Vdc)
MECHANICAL FEATURES	
Housing	2 module DIN 43880
Housing material	self-extinguishing makrolon
Protection degree	IP20 terminals/ IP40 front frame
Connections type	screw terminals
Connections	for cable up to 4mm²
ENVIRONMENTAL CONDITIONS	
Nominal temperature range	0...45°C
Storage and transport range	-25...70°C
Suitable for tropical climates	yes
Relative humidity	up to 75%
Max.power dissipation*	≤2,6W

* for switchboard thermal calculation

Wiring diagrams



Transducers

Programmable transducer



Keyboard programmable transducer single-phase and three-phase
Wholly field programmable
Direct three-phase voltage input up to 500V or by V.T, current input by CT 1/5A
True R.M.S. measurements
Output programmable 10 ranges, 0...5/10/20 - 4...20mA ± 5/10/20mA, 0...10V - 1...5V ±10V
Measured quantity:
Active/reactive/apparent power
Power factor
Phase angle
Power demand
Frequency

Cat. Nos.

Tema fP

	Input (A)	Input (V)	Output	Auxiliary supply
TM8P02110	1	80...500	selectable	115Vac
TM8P02120	5	80...500	selectable	115Vac
TM8P03110	1	80...500	selectable	230Vac
TM8P03120	5	80...500	selectable	230Vac
TM8P0H110	1	80...500	selectable	20...150Vdc
TM8P0H120	5	80...500	selectable	20...150Vdc
TM8P0L110	1	80...500	selectable	150...250Vdc
TM8P0L120	5	80...500	selectable	150...250Vdc

NOTE: Executions available on all models, response time 100msec, add 2 at the end of product code.

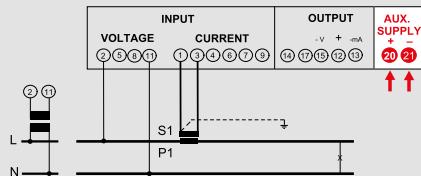
Technical features

TECHNICAL NOTES	NT514
INPUT	
Voltage rating Un	400V (phase-phase) (80...500V)
Frequency fn	50Hz (45...65Hz)
Current rating In	5A or 1A
Instantaneous overload	2Un/1s - 20In/1s
Rated burden	≤0,5VA (each phase)
OUTPUT	
Type	unidirectional and reversible, real or live zero for variable output load
Accuracy (EN 60688)	cl.0,5 (power) - cl.1 (power factor) - ± 0,2Hz (frequency)
Rated value	programmable (10 ranges)
Output load	≤ 750Ω (20mA) ≤ 1,5kΩ (10mA) ≤ 3kΩ (5mA) ≥ 5kΩ (5-10V)
Response time	≤300ms - 100ms (options)
AUXILIARY SUPPLY	
Rated value Uaux	115 - 230Vac 20...150Vdc - 150...250Vdc
Rated burden	≤3VA (Vac) ≤3W (Vdc)
MECHANICAL FEATURES	
Dimensions	8 module DIN 43880 (35mm)
Housing material	self-extinguishing polycarbonate
Protection degree	IP20 terminals/ IP52 front frame
Connections type	screw terminals
Rigid cable	max 6mm ²
Flexible cable	max 4mm ²
ENVIRONMENTAL CONDITIONS	
Nominal temperature range	0...50°C
Storage and transport range	-25...70°C
Suitable for tropical climates	yes
Max.power dissipation*	≤4,8W

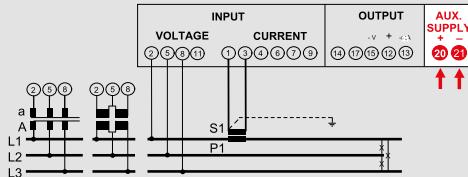
* for switchboard thermal calculation

Wiring diagrams

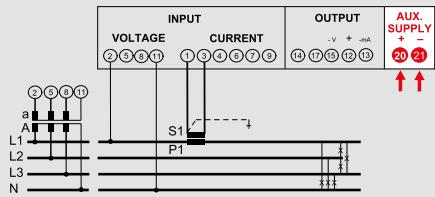
Single phase network



Three-phase 3Ph network, balanced load

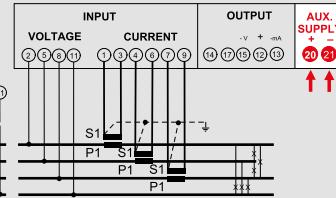


Three-phase 3Ph + N network, balanced load

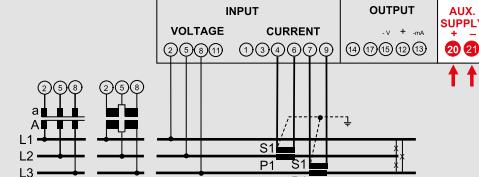


Wiring diagrams

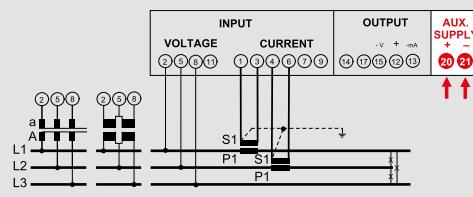
Three-phase 3Ph + N network, unbalanced load



Three-phase 3Ph network, unbalanced load



Three-phase 3Ph network, unbalanced load



Transducers

Programmable transducer through RS232 communication



- Single and three-phase 3-4 wire network
- Direct three phase voltage input up to 690V or by VT, current input by CT 1/5A
- 4 analog outputs 0...20mA or 4...20mA
- Quantities which can be associated to the output:
 - Phase or linked voltage
 - Phase current
 - Phase or three-phase active/reactive power
 - Power factor
 - Frequency
 - Average active/reactive power and current

Cat. Nos.	Tema Pr4			
	Input (V)	Input (A)	Output	Auxiliary supply
TM960411	80...690	1	selectable	80...265Vac 110...300Vdc
TM960412	80...690	1	selectable	11...60Vdc
TM960451	80...690	5	selectable	80...265Vac 110...300Vdc
TM960452	80...690	5	selectable	11...60Vdc

Cat. Nos.	Accessories
ATM96002	Description Programming kit (software + RS232 module + USB adapter)
IF96005	Alarm module 2 relay outputs associable to 2 quantities measured by Tema Pr4

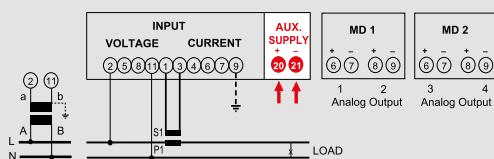
■ Technical features

TECHNICAL NOTES		NT848
INPUT		
Voltage rating Un		400V (phase-phase) (80...690V)
Frequency fn		50Hz (45...65Hz)
Instantaneous overload		20 In/0,5s
Continuous overload		1,2In
Rated burden		≤0,5VA (each phase)
OUTPUT		
Type		unidirectional at real or shifted zero, for variable output load
Accuracy (EN 60688)		class 0,5
Rated value		4 for 0...20mA 4...20mA
Output load		≤ 750Ω
Response time		≤ 300ms
AUXILIARY SUPPLY		
On the analog output module the transducer has 2 red LED's which show the presence of the auxiliary supply		
Rated value Uaux		80...265Vac 110...300Vdc – 11...60Vdc
Rated burden		≤7VA (Vac) ≤5W (Vdc)
MECHANICAL FEATURES		
Housing		flush mounting (panel cutout 92x92mm)
Front frame		96x96mm
Depth		101,3mm
Housing material		self-extinguishing polycarbonate
Protection degree		IP20 terminals/ IP40 front frame
Connections type		screw terminals
Rigid cable		max 4,5mm ² (volt.) max 6mm ² (amp.)
Flexible cable		max 2,5mm ² (volt.) max 4mm ² (amp.)
ENVIRONMENTAL CONDITIONS		
Nominal temperature range		-5...55°C
Storage and transport range		-25...70°C
Suitable for tropical climates		yes
Max power dissipation*		<6W

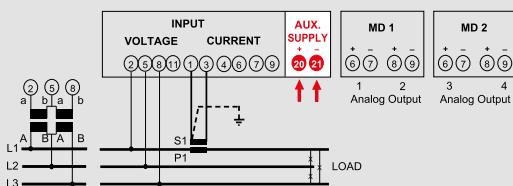
* for switchboard thermal calculation

Wiring diagrams

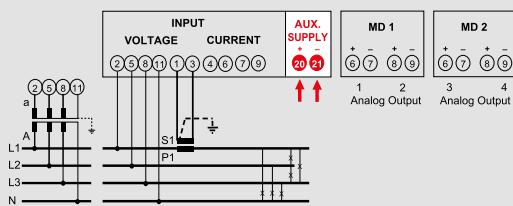
Single phase network



Three-phase 3Ph network, balanced load

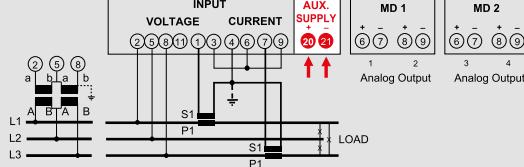


Three-phase 3Ph + N network, balanced load

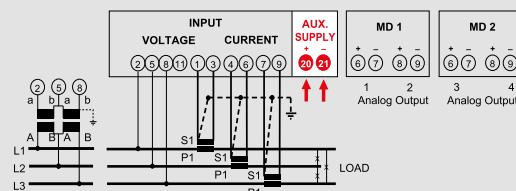


Three-phase 3Ph network

INPUT **AU**



Three-phase 3Ph network, unbalanced load



Transducers

Unidirectional direct current transducer



Standard signal galvanic insulation
Universal input 0...5/20mA - 4...20mA
Output 0...5/20mA - 4...20mA or 0...10V

Cat. Nos.	Tema SG		
	Input (mA)	Output	Auxiliary supply
TM3G112	0...5	0...5mA	115+230Vac
TM3G114	0...5	0...20mA	115+230Vac
TM3G115	0...5	4...20mA	115+230Vac
TM3G118	0...5	0...10V	115+230Vac
TM3G132	0...20	0...5mA	115+230Vac
TM3G134	0...20	0...20mA	115+230Vac
TM3G135	0...20	4...20mA	115+230Vac
TM3G138	0...20	0...10V	115+230Vac
TM3G142	4...20	0...5mA	115+230Vac
TM3G144	4...20	0...20mA	115+230Vac
TM3G145	4...20	4...20mA	115+230Vac
TM3G148	4...20	0...10V	115+230Vac
TM3GH12	0...5	0...5mA	20...150Vdc+48Vac
TM3GH14	0...5	0...20mA	20...150Vdc+48Vac
TM3GH15	0...5	4...20mA	20...150Vdc+48Vac
TM3GH18	0...5	0...10V	20...150Vdc+48Vac
TM3GH32	0...20	0...5mA	20...150Vdc+48Vac
TM3GH34	0...20	0...20mA	20...150Vdc+48Vac
TM3GH35	0...20	4...20mA	20...150Vdc+48Vac
TM3GH38	0...20	0...10V	20...150Vdc+48Vac
TM3GH42	4...20	0...5mA	20...150Vdc+48Vac
TM3GH44	4...20	0...20mA	20...150Vdc+48Vac
TM3GH45	4...20	4...20mA	20...150Vdc+48Vac
TM3GH48	4...20	0...10V	20...150Vdc+48Vac
TM3GL12	0...5	0...5mA	150...250Vdc
TM3GL14	0...5	0...20mA	150...250Vdc
TM3GL15	0...5	4...20mA	150...250Vdc
TM3GL18	0...5	0...10V	150...250Vdc
TM3GL32	0...20	0...5mA	150...250Vdc
TM3GL34	0...20	0...20mA	150...250Vdc
TM3GL35	0...20	4...20mA	150...250Vdc
TM3GL38	0...20	0...10V	150...250Vdc
TM3GL42	4...20	0...5mA	150...250Vdc
TM3GL44	4...20	0...20mA	150...250Vdc
TM3GL45	4...20	4...20mA	150...250Vdc
TM3GL48	4...20	0...10V	150...250Vdc

Technical features

TECHNICAL NOTES	NT228
INPUT	
Type	unidirectional
Current rating In	5 - 20mA 4...20mA
Continuous overload	50mA
Voltage drop	≤5V
OUTPUT	
Type	unidirectional real or live zero for variable output load
Accuracy (EN 60688)	class 0,5
Rated values	0...5mA - 0...20mA - 4...20mA - 0...40V
Output load	≤ 750Ω (20mA) ≤ 1,5kΩ (10mA) ≤ 3kΩ (5mA) ≥ 5kΩ (10V)
Response time	≤150ms
AUXILIARY SUPPLY	
Nominal voltage	48 - 115 - 230Vca
Rated burden	≤4VA (Vac) ≤3W (Vdc)
MECHANICAL FEATURES	
Dimensions	4 module DIN 43880 (35mm)
Housing material	self-extinguishing polycarbonate
Protection degree	IP20 terminals/ IP51 front frame
Connections type	screw terminals
Connections	for cable up to 4mm²
ENVIRONMENTAL CONDITIONS	
Nominal temperature range	-0...45°C
Storage and transport range	-25...70°C
Suitable for tropical climates	yes

Transducers

Unidirectional direct current or voltage transducers



To measure direct current 1...500mA

Standard signal galvanic insulation: 0...5/10/20mA - 4...20mA

Input voltage drop ≤100mV

To measure direct voltage 50mV...400V

Standard signal galvanic insulation: 0...5/10V - 1...5V

Connection by shunts 60-100-150mV

Cat. Nos.	Tema SG		
	Input	Output (mA)	Auxiliary supply
TM2G142	4...20mA	0...5	115+230Vac
TM2G144	4...20mA	0...20	115+230Vac
TM2G145	4...20mA	4...20	115+230Vac
TM2G152	0...60mV	0...5	115+230Vac
TM2G154	0...60mV	0...20	115+230Vac
TM2G155	0...60mV	4...20	115+230Vac
TM2G1P2	0...1<>500mA 0...50mV<>400V *	0...5	115+230Vac
TM2G1P4	0...1<>500mA 0...50mV<>400V *	0...20	115+230Vac
TM2G1P5	0...1<>500mA 0...50mV<>400V *	4...20	115+230Vac
TM2GH42	4...20mA	0...5	20...150Vdc+48Vac
TM2GH44	4...20mA	0...20	20...150Vdc+48Vac
TM2GH45	4...20mA	4...20	20...150Vdc+48Vac
TM2GH52	0...60mV	0...5	20...150Vdc+48Vac
TM2GH54	0...60mV	0...20	20...150Vdc+48Vac
TM2GH55	0...60mV	4...20	20...150Vdc+48Vac
TM2GHP2	0...1<>500mA 0...50mV<>400V *	0...5	20...150Vdc+48Vac
TM2GHP4	0...1<>500mA 0...50mV<>400V *	0...20	20...150Vdc+48Vac
TM2GHP5	0...1<>500mA 0...50mV<>400V *	4...20	20...150Vdc+48Vac
TM2GL42	4...20mA	0...5	150...250Vdc
TM2GL44	4...20mA	0...20	150...250Vdc
TM2GL45	4...20mA	4...20	150...250Vdc
TM2GL52	0...60mV	0...5	150...250Vdc
TM2GL54	0...60mV	0...20	150...250Vdc
TM2GL55	0...60mV	4...20	150...250Vdc
TM2GLP2	0...1<>500mA 0...50mV<>400V *	0...5	150...250Vdc
TM2GLP4	0...1<>500mA 0...50mV<>400V *	0...20	150...250Vdc
TM2GLP5	0...1<>500mA 0...50mV<>400V *	4...20	150...250Vdc

* In addition to the product code pls. indicate the input value corresponding to output

Technical features

TECHNICAL NOTES	NT229
INPUT	
Type	unidirectional
Voltage rating Un	60mV - 50mV...400V
Current rating In	1...500mA
Voltage drop	≤100mV
Rated burden	≤ 0,2mA
OUTPUT	
Type	unidirectional real or live zero for variable output load
Accuracy (EN 60688)	class 0,5
Rated values	0...5mA - 0...20mA - 4...20mA
Output load	≤ 250Ω (20mA) - ≤ 1kΩ (5mA)
Response time	≤ 150ms
AUXILIARY SUPPLY	
Rated value Uaux	48 - 115 - 230Vac
Other value on request	20...150Vdc - 150...250Vdc
Rated burden	≤4VA (Vac) ≤3W (Vdc)
MECHANICAL FEATURES	
Dimensions	4 module DIN 43880 (35mm)
Housing material	self-extinguishing polycarbonate
Protection degree	IP20 terminals/ IP51 front frame
Connections type	screw terminals
Connections	for cable up to 4mm²
ENVIRONMENTAL CONDITIONS	
Nominal temperature range	-0...45°C
Storage and transport range	-25...70°C
Suitable for tropical climates	yes

Transducers

Unidirectional or bidirectional direct current transducers



To measure direct or pulsating current (average value)

Input unidirectional from 0...500µA to 0...1,5A

Input bidirectional from ± 250µA to ± 750mA

Cat. Nos.	Tema DC		
	Input	Output	Auxiliary supply
TM1A114	0...400<>800µA *	0...20mA	115+230Vac
TM1A115	0...400<>800µA *	4...20mA	115+230Vac
TM1A118	0...400<>800µA *	0...10V	115+230Vac
TM1A124	0...1<>800mA *	0...20mA	115+230Vac
TM1A125	0...1<>800mA *	4...20mA	115+230Vac
TM1A128	0...1<>800mA *	0...10V	115+230Vac
TM1A134	0...1<>1,5A *	0...20mA	115+230Vac
TM1A135	0...1<>1,5A *	4...20mA	115+230Vac
TM1A138	0...1<>1,5A *	0...10V	115+230Vac
TM1A144	4...20mA	0...20mA	115+230Vac
TM1A145	4...20mA	4...20mA	115+230Vac
TM1A148	4...20mA	0...10V	115+230Vac
TM1A155	±250<>±800µA *	4...20mA	115+230Vac
TM1A15E	±250<>±800µA *	±20mA	115+230Vac
TM1A15H	±250<>±800µA *	±10V	115+230Vac
TM1A165	±1<>±750mA *	4...20mA	115+230Vac
TM1A16E	±1<>±750mA *	±20mA	115+230Vac
TM1A16H	±1<>±750mA *	±10V	115+230Vac

* In addition to the product code pls. indicate the input value corresponding to output

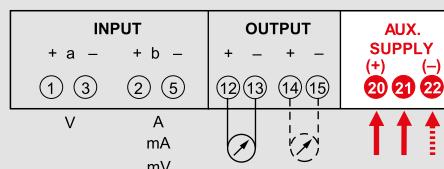
Auxiliary supply	Others auxiliary supply value on request
	Description code
20...30VDC	Replace the 5th number (1) of the product code with C
40...60VDC	Replace the 5th number (1) of the product code with D
90...140VDC	Replace the 5th number (1) of the product code with E
180...250VDC	Replace the 5th number (1) of the product code with F

Technical features

TECHNICAL NOTES	NT239
INPUT	
Unidirectional current rating	500µA...1,5A
Bidirectional current rating	250µA...750mA
Excessive input of short duration	20In/1s (max. 5A)
Voltage drop	≤ 1V with input ≤ 500mA ≤ 0,5V with input > 500mA
OUTPUT	
Type	unidirectional or bidirectional, real or live zero for variable output load
Accuracy (EN 60688)	class 0,5
Current rated values	0...20 - 4...20mA
Output load	≤ 750Ω (20mA) ≤ 1,5kΩ (10mA) ≤ 3kΩ (5mA) ≥ 5kΩ (10V)
Voltage rated values	0...10V
Output load	> 5kΩ
Response time	≤ 300ms
AUXILIARY SUPPLY	
Rated value Uaux ac	115 and 230V
Other value on request	
Rated burden	≤ 5VA (Vac) ≤ 4W (Vdc)
MECHANICAL FEATURES	
Dimensions	6 module DIN 43880 (35mm)
Housing material	self-extinguishing polycarbonate
Protection degree	IP20 terminals/ IP51 front frame
Connections type	screw terminals
Connections	for cable up to 4mm ²
ENVIRONMENTAL CONDITIONS	
Nominal temperature range	-0...45°C
Storage and transport range	-25...70°C
Suitable for tropical climates	yes
Max.power dissipation*	≤ 4,5W

* for switchboard thermal calculation

Wiring diagrams



Transducers

Unidirectional or bidirectional direct voltage transducers



To measure direct or pulsating voltage (average value)

Input unidirectional from 10mV to 600V

Input bidirectional from \pm 5mV to \pm 300mV

Cat. Nos.

Tema DC

	Input	Output	Auxiliary supply
TM1V114	0...10<>600mV *	0...20mA	115+230Vac
TM1V115	0...10<>600mV *	4...20mA	115+230Vac
TM1V118	0...10<>600mV *	0...10V	115+230Vac
TM1V124	0...1<>600V *	0...20mA	115+230Vac
TM1V125	0...1<>600V *	4...20mA	115+230Vac
TM1V128	0...1<>600V *	0...10V	115+230Vac
TM1V134	1...5V	0...20mA	115+230Vac
TM1V135	1...5V	4...20mA	115+230Vac
TM1V138	1...5V	0...10V	115+230Vac
TM1V144	2...10V	0...20mA	115+230Vac
TM1V145	2...10V	4...20mA	115+230Vac
TM1V148	2...10V	0...10V	115+230Vac
TM1V155	\pm 5<> \pm 600mV *	4...20mA	115+230Vac
TM1V15E	\pm 5<> \pm 600mV *	\pm 20mA	115+230Vac
TM1V15H	\pm 5<> \pm 600mV *	\pm 10V	115+230Vac
TM1V165	\pm 1<> \pm 300V *	4...20mA	115+230Vac
TM1V16E	\pm 1<> \pm 300V *	\pm 20mA	115+230Vac
TM1V16H	\pm 1<> \pm 300V *	\pm 10V	115+230Vac

* In addition to the product code pls. indicate the input value corresponding to output

Auxiliary supply

Others auxiliary supply value on request

Description code

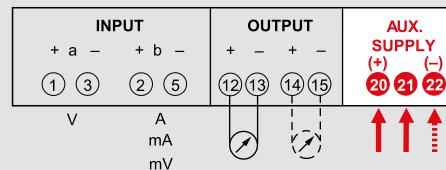
- 20...30VDC Replace the 5th number (1) of the product code with C
- 40...60VDC Replace the 5th number (1) of the product code with D
- 90...140VDC Replace the 5th number (1) of the product code with E
- 180...250VDC Replace the 5th number (1) of the product code with F

Technical features

TECHNICAL NOTES	NT238
INPUT	
Unidirectional current rating	10mV...600V
Bidirectional current rating	5mV...300V
Excessive input of short duration	20ln/1s (max. 5A)
Input impedance	\geq 100k Ω with input \leq 1V \geq 1M Ω with input $>$ 1V
OUTPUT	
Type	unidirectional or bidirectional, real or live zero for variable output load
Accuracy (EN 60688)	class 0,5
Current rated values	0...20 - 4...20mA
Output load	\leq 750 Ω (20mA) - \leq 1,5k Ω (10mA) - \leq 3k Ω (5mA) \geq 5k Ω (10V)
Voltage rated values	0...10V
Output load	$>$ 5k Ω
Response time	\leq 300ms
AUXILIARY SUPPLY	
Rated value Uaux ac	115 and 230V
Other value on request	
Rated burden	\leq 5VA (Vac) \leq 4W (Vdc)
MECHANICAL FEATURES	
Dimensions	6 module DIN 43880 (35mm)
Housing material	self-extinguishing polycarbonate
Protection degree	IP20 terminals/ IP51 front frame
Connections type	screw terminals
Connections	for cable up to 4mm ²
ENVIRONMENTAL CONDITIONS	
Nominal temperature range	-0...45°C
Storage and transport range	-25...70°C
Suitable for tropical climates	yes
Max.power dissipation*	\leq 4W

* for switchboard thermal calculation

Wiring diagrams



Transducers

CT with a.c. built-in transducer



TT35



TT35A

Cat. Nos.

TT35

2-wire technology Passing cable window Ø 35mm Primary current field-selectable 9 programmable ranges		
Input	Output (mA)	Auxiliary supply
TT1AA502A 5/10/15/20/25/30/ 35/40/45	4...20	10...34Vdc
TT1AB152A 15/30/45/60/75/90/ 105/120/135A	4...20	10...34Vdc
TT1AB252A 25/50/75/100/125/150/ 175/200/225	4...20	10...34Vdc
TT1AB502A 50/100/150/200/250/300/ 350/400/450	4...20	10...34Vdc

Cat. Nos.

TT35A

4-wire technology Passing cable window Ø 35mm Primary current field-selectable 9 programmable ranges		
Input (A)	Output	Auxiliary supply
TT1BA5012 5/10/15/20/25/30/35/40/45	0...20mA	115Vac
TT1BA5013 5/10/15/20/25/30/35/40/45	0...20mA	230Vac
TT1BA5022 5/10/15/20/25/30/35/40/45	4...20mA	115Vac
TT1BA5023 5/10/15/20/25/30/35/40/45	4...20mA	230Vac
TT1BA5032 5/10/15/20/25/30/35/40/45	0...10V	115Vac
TT1BA5033 5/10/15/20/25/30/35/40/45	0...10V	230Vac
TT1BB1512 15/30/45/60/75/90/105/120/135	0...20mA	115Vac
TT1BB1513 15/30/45/60/75/90/105/120/135	0...20mA	230Vac
TT1BB1522 15/30/45/60/75/90/105/120/135	4...20mA	115Vac
TT1BB1523 15/30/45/60/75/90/105/120/135	4...20mA	230Vac
TT1BB1532 15/30/45/60/75/90/105/120/135	0...10V	115Vac
TT1BB1533 15/30/45/60/75/90/105/120/135	0...10V	230Vac
TT1BB2512 25/50/75/100/125/150/175/200/225	0...20mA	115Vac
TT1BB2513 25/50/75/100/125/150/175/200/225	0...20mA	230Vac
TT1BB2522 25/50/75/100/125/150/175/200/225	4...20mA	115Vac
TT1BB2523 25/50/75/100/125/150/175/200/225	4...20mA	230Vac
TT1BB2532 25/50/75/100/125/150/175/200/225	0...10V	115Vac
TT1BB2533 25/50/75/100/125/150/175/200/225	0...10V	230Vac
TT1BB5012 50/100/150/200/250/300/350/400/450	0...20mA	115Vac
TT1BB5013 50/100/150/200/250/300/350/400/450	0...20mA	230Vac
TT1BB5022 50/100/150/200/250/300/350/400/450	4...20mA	115Vac
TT1BB5023 50/100/150/200/250/300/350/400/450	4...20mA	230Vac
TT1BB5032 50/100/150/200/250/300/350/400/450	0...10V	115Vac
TT1BB5033 50/100/150/200/250/300/350/400/450	0...10V	230Vac

Cat. Nos.

Accessories

IDescription

ATADIN01

Accessory for DIN rail 35mm mounting

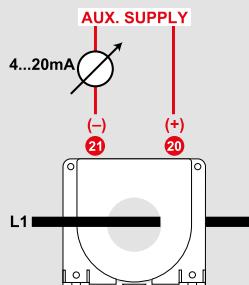
Technical features

MODEL	TT35	TT35A
TECHNICAL NOTES	NT433	NT434
INPUT		
Rated current In	5...450A	
Rated frequency:	50 or 400Hz	
Working frequency:	43...63Hz	
Instantaneous overload	20 In/1 second	
OUTPUT		
Type	unidirectional, live zero for variable output load	
Accuracy	class 1	
AUXILIARY SUPPLY		
Rated value Uaux	lowest supply voltage + 9 highest supply voltage +30	115 or 230V
Rated burden	-	≤ 3VA
MECHANICAL FEATURES		
Housing material	self-extinguishing polycarbonate	
Protection degree (EN/IEC 60529)	IP20 terminals	
Mounting	screw type	
Weight	200 gr	350 gr
Connections type	removable screw terminals	
Secondary winding	2 screw terminals	4 screw terminals
ENVIRONMENTAL CONDITIONS		
Nominal temperature range	-0...45°C	
Storage and transport range	-25...70°C	
Suitable for tropical climates	yes	
Max.power dissipation*	≤ 0,6W	≤ 2,5W

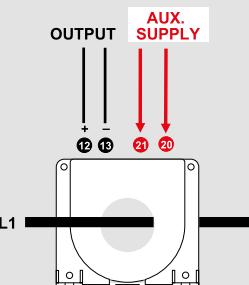
*For switchboard thermal calculation

Wiring diagrams

TT35

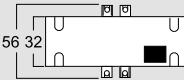
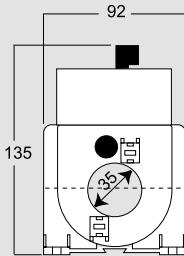
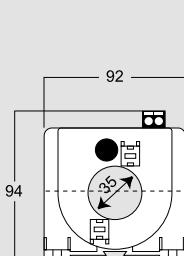


TT35A

**Dimensions**

TT35

TT35A



Transducers

CT with d.c. Hall effect built-in transducer



HT35Bs



HT35Bm

Cat. Nos.

HT35Bs

Passing cable window Ø 35mm

	Input	Output (mA)	Auxiliary supply
HT1BS101A	10/20/30/40/50/ 60/70/80/90/100	0...20	15Vdc taken from HT35Bm *
HT1BS102A	10/20/30/40/50/ 60/70/80/90/100	4...20	15Vdc taken from HT35Bm *

* HT35Bm can connect up to 3 HT35Bs

Cat. Nos.

HT35Bm

4-wire technology
Passing cable window Ø 35mm

	Input	Output (mA)	Auxiliary supply
HT1BM1017	10/20/30/40/50/ 60/70/80/90/100	0...20	80...270Vdc 110...300Vdc
HT1BM1017	10/20/30/40/50/ 60/70/80/90/100	0...20	20...60Vdc 24Vac
HT1BM1017	10/20/30/40/50/ 60/70/80/90/100	4...20	80...270Vdc 110...300Vdc
HT1BM1017	10/20/30/40/50/ 60/70/80/90/100	4...20	20...60Vdc 24Vac

Cat. Nos.

Accessories

Description

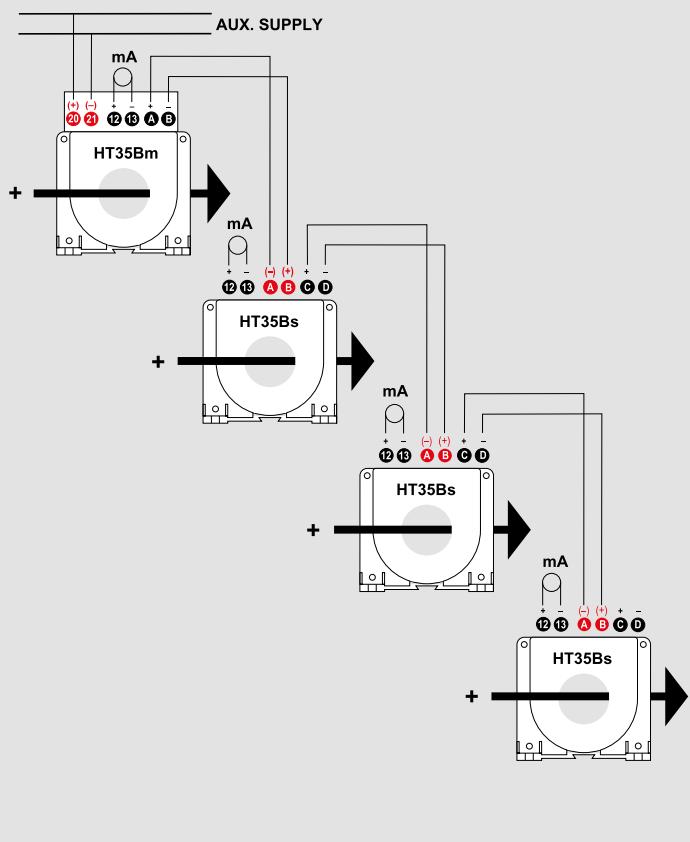
ATADIN01 Accessory for DIN rail 35mm mounting

Technical features

MODEL	HT35Bs	HT35Bm
TECHNICAL NOTES	NT763	
INPUT		
Rated current In	5...100A	
Continuous overload	1,2In	
OUTPUT		
Type	unidirectional, live zero for variable output load	
Accuracy	class 1	
Current rated value	4...20mA - 0...20mA	
Output load	≤ 500Ω	
AUXILIARY SUPPLY		
Rated value Uaux	15V (from HT35Bm)	24V - 80...270V
Rated burden	≤ 1VA	
MECHANICAL FEATURES		
Housing material	self-extinguishing polycarbonate	
Protection degree (EN/IEC 60529):	IP20 terminals	
Mounting:	screw type	
Weight	110 gr	160 gr
Connections type	removable screw terminals	
ENVIRONMENTAL CONDITIONS		
Nominal temperature range	-0...45°C	
Storage and transport range	-25...70°C	
Suitable for tropical climates	yes	
Max.power dissipation*	≤4,W	

*For switchboard thermal calculation

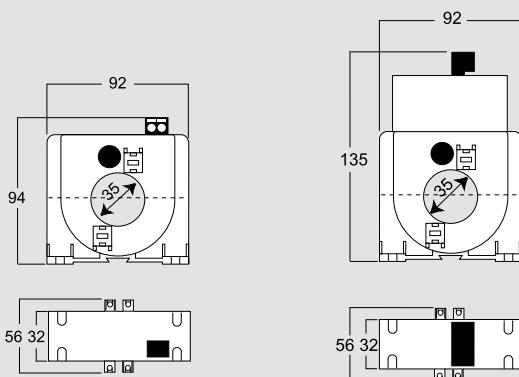
Wiring diagrams



Dimensions

HT35Bs

HT35Bm



Transducers

CT with d.c. Hall effect built-in transducer



Cat. Nos.

HT35A

Passing cable window Ø 35mm
Field-selectable output

	Input (A)	Output	Auxiliary supply
HT1BC1032	0...100	0...10V	115Vac
HT1BC1033	0...100	0...10V	230Vac
HT1BC103T	0...100	0...10V	20...150Vdc+48Vac
HT1BC1042	0...100	0...20/4...20mA	115Vac
HT1BC1043	0...100	0...20/4...20mA	230Vac
HT1BC104T	0...100	0...20/4...20mA	20...150Vdc+48Vac
HT1BC1532	0...150	0...10V	115Vac
HT1BC1533	0...150	0...10V	230Vac
HT1BC153T	0...150	0...10V	20...150Vdc+48Vac
HT1BC1542	0...150	0...20/4...20mA	115Vac
HT1BC1543	0...150	0...20/4...20mA	230Vac
HT1BC154T	0...150	0...20/4...20mA	20...150Vdc+48Vac
HT1BC2032	0...200	0...10V	115Vac
HT1BC2033	0...200	0...10V	230Vac
HT1BC203T	0...200	0...10V	20...150Vdc+48Vac
HT1BC2042	0...200	0...20/4...20mA	115Vac
HT1BC2043	0...200	0...20/4...20mA	230Vac
HT1BC204T	0...200	0...20/4...20mA	20...150Vdc+48Vac
HT1BC2532	0...250	0...10V	115Vac
HT1BC2533	0...250	0...10V	230Vac
HT1BC253T	0...250	0...10V	20...150Vdc+48Vac
HT1BC2542	0...250	0...20/4...20mA	115Vac
HT1BC2543	0...250	0...20/4...20mA	230Vac
HT1BC254T	0...250	0...20/4...20mA	20...150Vdc+48Vac
HT1BC3032	0...300	0...10V	115Vac
HT1BC3033	0...300	0...10V	230Vac
HT1BC303T	0...300	0...10V	20...150Vdc+48Vac
HT1BC3042	0...300	0...20/4...20mA	115Vac
HT1BC3043	0...300	0...20/4...20mA	230Vac
HT1BC304T	0...300	0...20/4...20mA	20...150Vdc+48Vac
HT1BC4032	0...400	0...10V	115Vac
HT1BC4033	0...400	0...10V	230Vac
HT1BC403T	0...400	0...10V	20...150Vdc+48Vac
HT1BC4042	0...400	0...20/4...20mA	115Vac
HT1BC4043	0...400	0...20/4...20mA	230Vac
HT1BC404T	0...400	0...20/4...20mA	20...150Vdc+48Vac

Cat. Nos.

Accessories

Description

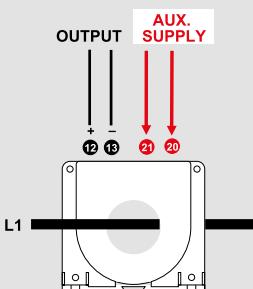
ATADIN01 Accessory for DIN rail 35mm mounting

Technical features

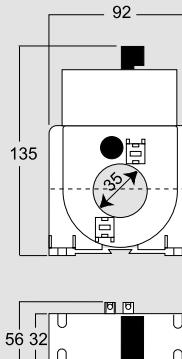
TECHNICAL NOTES	NT500
INPUT	
Rated current In	100...400A
Continuous overload	1,2In
OUTPUT	
Type	unidirectional, real or live zero for variable output load
Accuracy	class 1
Current rated value	0...20mA and 4...20mA
Output load	≤ 750Ω
Voltage rated value	0...10V
Output load	> 1kΩ
AUXILIARY SUPPLY	
Rated value Uaux ac	115 and 230V
Other value on request	
Rated burden	≤ 3,5W
MECHANICAL FEATURES	
Housing material	self-extinguishing polycarbonate
Protection degree (EN/IEC 60529)	IP20 terminals
Mounting	screw type
Weight:	350 gr
Connections type	removable screw terminals
ENVIRONMENTAL CONDITIONS	
Nominal temperature range	-0...45°C
Storage and transport range	-25...70°C
Suitable for tropical climates	yes
Max.power dissipation*	≤ 4,W

*For switchboard thermal calculation

Wiring diagrams



Dimensions



Transducers

CT with d.c. Hall effect built-in transducer



Cat. Nos.

HT80A

Passing cable window Ø 80mm
Field-selectable output

	Input (A)	Output	Auxiliary supply
HT2BC4032	0...400	0...10V	115Vac
HT2BC4033	0...400	0...10V	230Vac
HT2BC403T	0...400	0...10V	20...150Vdc+48Vac
HT2BC4042	0...400	0...20/4...20mA	115Vac
HT2BC4043	0...400	0...20/4...20mA	230Vac
HT2BC404T	0...400	0...20/4...20mA	20...150Vdc+48Vac
HT2BC5032	0...500	0...10V	115Vac
HT2BC5033	0...500	0...10V	230Vac
HT2BC503T	0...500	0...10V	20...150Vdc+48Vac
HT2BC5042	0...500	0...20/4...20mA	115Vac
HT2BC5043	0...500	0...20/4...20mA	230Vac
HT2BC504T	0...500	0...20/4...20mA	20...150Vdc+48Vac
HT2BC6032	0...600	0...10V	115Vac
HT2BC6033	0...600	0...10V	230Vac
HT2BC603T	0...600	0...10V	20...150Vdc+48Vac
HT2BC6042	0...600	0...20/4...20mA	115Vac
HT2BC6043	0...600	0...20/4...20mA	230Vac
HT2BC604T	0...600	0...20/4...20mA	20...150Vdc+48Vac
HT2BC8032	0...800	0...10V	115Vac
HT2BC8033	0...800	0...10V	230Vac
HT2BC803T	0...800	0...10V	20...150Vdc+48Vac
HT2BC8042	0...800	0...20/4...20mA	115Vac
HT2BC8043	0...800	0...20/4...20mA	230Vac
HT2BC804T	0...800	0...20/4...20mA	20...150Vdc+48Vac
HT2BD1032	0...1000	0...10V	115Vac
HT2BD1033	0...1000	0...10V	230Vac
HT2BD103T	0...1000	0...10V	20...150Vdc+48Vac
HT2BD1042	0...1000	0...20/4...20mA	115Vac
HT2BD1043	0...1000	0...20/4...20mA	230Vac
HT2BD104T	0...1000	0...20/4...20mA	20...150Vdc+48Vac

Cat. Nos.

Accessories

IDescription

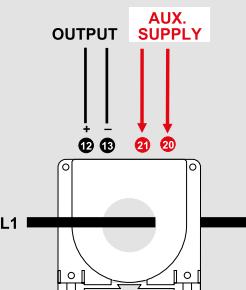
ATADIN01 Accessory for DIN rail 35mm mounting

Technical features

TECHNICAL NOTES	NT501
INPUT	
Rated current In	400...1000A
Continuous overload	1,2In
OUTPUT	
Type	unidirectional, real or live zero for variable output load
Accuracy	class 1
Current rated value	0...20mA and 4...20mA
Output load	≤ 750Ω
Voltage rated value	0...10V
Output load	> 1kΩ
AUXILIARY SUPPLY	
Rated value Uaux ac	115 and 230V
Other value on request	
Rated burden	≤5VA
MECHANICAL FEATURES	
Housing material	self-extinguishing polycarbonate
Protection degree (EN/IEC 60529):	IP20 terminals
Mounting:	screw type
Weight:	480 gr
Connections type	removable screw terminals
ENVIRONMENTAL CONDITIONS	
Nominal temperature range	-0...45°C
Storage and transport range	-25...70°C
Suitable for tropical climates	yes
Max.power dissipation*	≤4,W

*For switchboard thermal calculation

Wiring diagrams



Dimensions

