

TSPI / TSPU
1 function - self-powered

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TRIAD FACTORY
programmed model

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TRIAD programming via TRIADJUST

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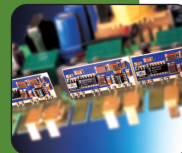
TRIADJUST
programming software

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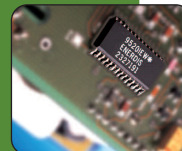


TRIAD RANGE

Designed for the conversion of up to 3 alternating electrical values to direct signals on 1, 2 or 3 analogue outputs.



Economic
multifunction design:
3 functions in
one unit



Accuracy, reliability,
stability:
class 0,2 digital
measurement thanks
to the ASIC MNA 10



Accessibility & safety:
oversized terminals,
insulated circuits



Ergonomic:
easily mounted on
DIN rail or plate.

PRODUCT ADVANTAGES

- **MULTIFUNCTION:** conversion of 3 alternating electrical values to 3 analogue outputs
- **PROGRAMMED AND MODIFIED:** via TRIADJUST software
- **CLASS 0.2:** as per IEC 60688
- **WIDE DYNAMIC POWER RANGE:** to ensure optimum coverage of available power supplies

Main TRIAD features

Measurement values: 1, 2 or 3 from among I, U, F, PF, P, Q, S.

Programming TRIAD: in factory or by user via **TRIADJUST** software.

Accuracy: class 0.2

Input currents: 1 or 5 A

Input voltages: from $100/\sqrt{3}$ to 400 V

Transfer curves: linear, 2-slopes or quadratic

Output signal: programmable from -20 to +20 mA or from -10 to 10 Vdc.

Response time: < 350 ms

Operating frequency: 50 or 60 Hz

Wide dynamic range auxiliary power supply: 80 to 230 Vac and 110 to 325 Vdc
24 to 109 Vdc and 17 to 80 Vac

Complies with EC directives.

Digital technology.

HOW TO CHOOSE HIS TRIAD TRANSDUCER ?



TRIAD 1 function TSPI/TSPU

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■ Designed for Voltage (TSPU) or current (TSPI).

- TSPU and TSPI models exist in several standard ratings.
- Self-powered, the TSPU and TSPI models require no external auxiliary power supply.

TRIAD factory programmed model

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■ The transducer is delivered ready for use and may be connected directly to the electrical network so as to send calibrated output signals to your installation.

- To do so, it is sufficient to know the exact specifications of your electrical installation:
 - The network type: single-phase, balanced or unbalanced three-phase 3 or 4 wires;
 - The type of electrical connection;
 - The number of electrical values to be measured: 1, 2, 3 or more;
 - The exact measurement ranges of the input/output values to be measured.

A factory programmed model may be modified by the user at all times via the TRIADJUST software, so as to incorporate changes in the specifications of the electrical network.

TRIAD programming via TRIADJUST

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■ Using the TRIADJUST software and an infra-red transmitter-receiver, it is possible to programme the entire range of specifications available on TRIAD transducers.

- To do so, just choose a model adapted to your electrical installation.
- The network type: (single-phase, balanced or unbalanced three-phase 3 or 4 wires);
- The number of analogue outputs desired (1, 2 or 3);
- The value of the auxiliary source.

You are also completely free to choose the parameters of the TRIAD transducer supplied and to edit the adhesive labels corresponding to the parameters programmed.

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Associated products

Analogue panel meters

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Digital panel meters

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Accessories

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CT Current transformer

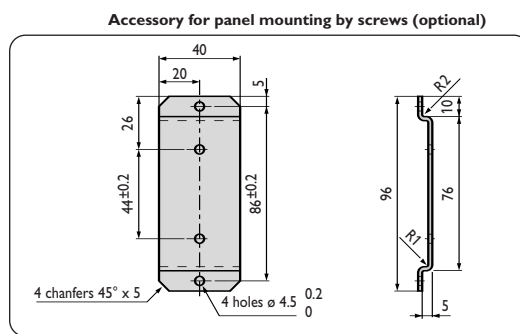
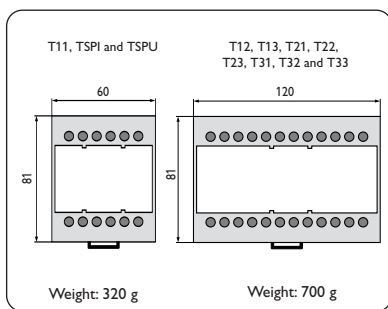
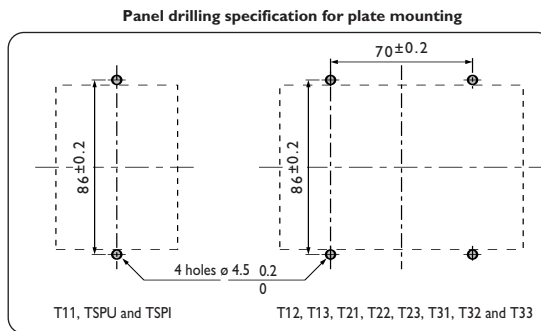
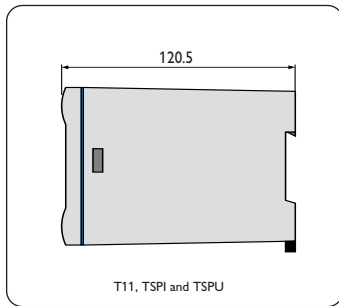
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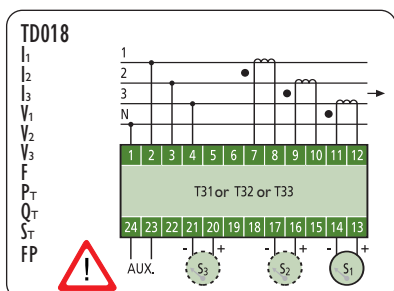
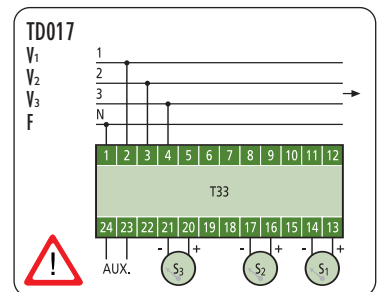
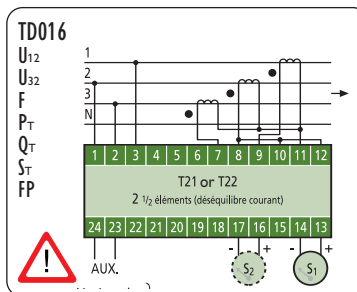
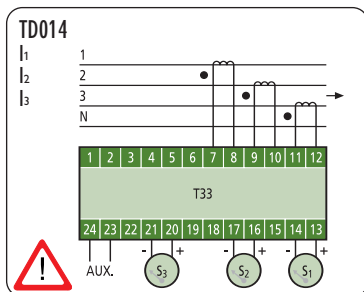
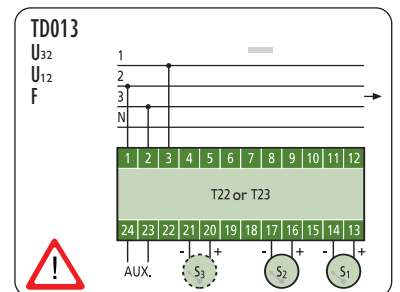
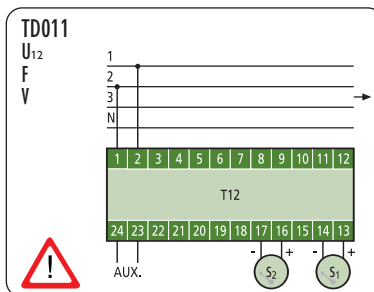
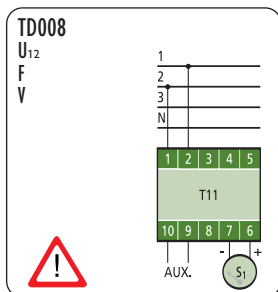
THE TRIAD RANGE

■ Dimensions (in mm)



■ Electrical connections

UNBALANCED NETWORK 4 WIRE



AUX.: auxiliary power supply

⊖ S₁ Analogue output no. 1, 2 or 3

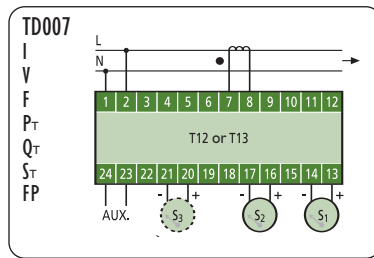
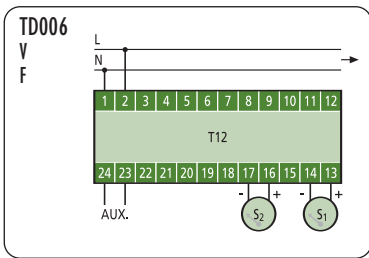
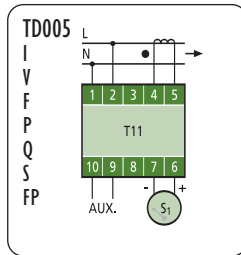
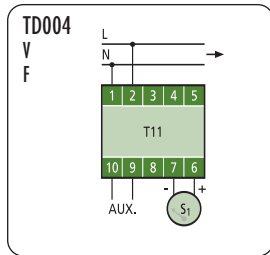
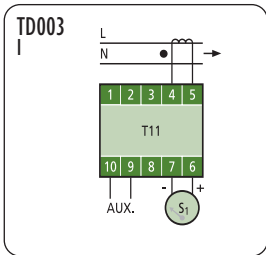


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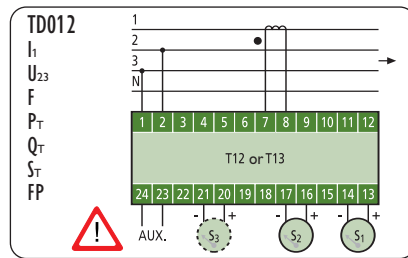
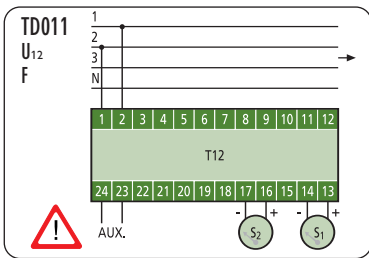
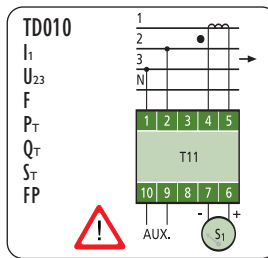
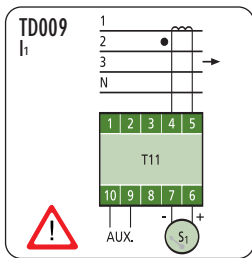
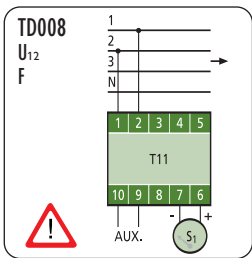


Electrical connections

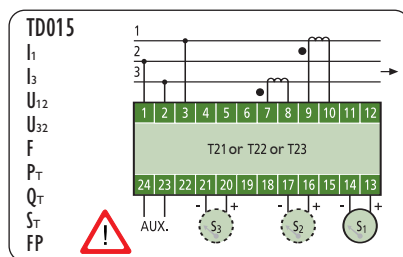
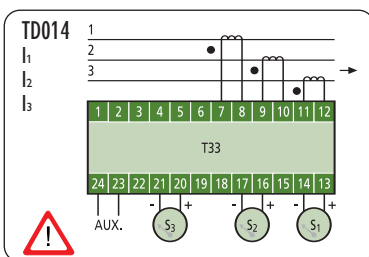
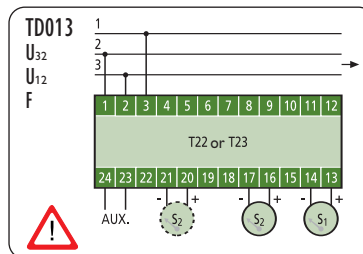
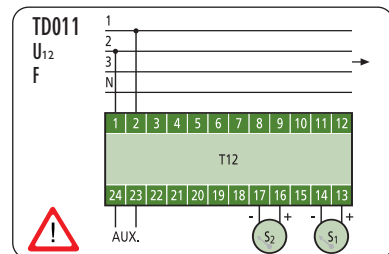
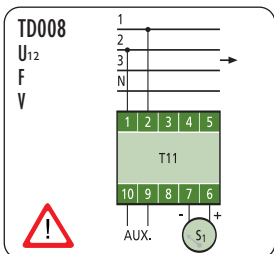
SINGLE-PHASE NETWORKS



BALANCED THREE-PHASE NETWORKS 3/4 WIRE



UNBALANCED THREE-PHASE NETWORKS 3 WIRE



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TRIAD RANGE

Electrical specifications

	Current	Voltage
Inputs		
Nominal value	$1A \leq I_n \leq 5 A$	$50 V \leq U_n \leq 480 V$
Frequency	45...65 Hz	
Maximum consumption	$\leq 0.5 VA$	$\leq 0.5 VA$
Maximum overloads	2 I_n permanent	1.5 U_n permanent
	20 I_n / 1 s	2 U_n / 1 s
	40 I_n / 0.5 s	4 U_n / 0.5 s
Outputs		
Nominal value	from -20 mA to 20 mA	from -10 V to +10 V
Operating resistance	15 V / I_s (1)	$\geq 1 k\Omega$
Threshold overruns	1.1 I_s (1)	1.1 U_s (1)
Peak - peak residual ripple	40 μA	20 mV
Response time	$< 350 ms$ / TSPU $< 200 ms$ / TSPI $< 100 ms$	
Sampling frequency	15.625 kHz (312 samples per 50 Hz period)	

(1) I_s = output current - U_s = output voltage

EMC standards

Low voltage directive: 73/23/EEC

Dielectric strength EN 61010 - 1

- Between input circuits, auxiliary power supply and output circuits: 4 kV – 50 Hz – 1 mn
- Between outputs: 500 V - 50 Hz - 1 mn

Electromagnetic compatibility (89/336/EEC)

- Immunity as per EN 50082-2
- Shock voltage as per EN 61000-4-5:
4 kV in common mode (wave 1.2/50 ms),
2 kV in differential mode
- Attenuated oscillation wave as per EN 61000-4-12:
2.5 kV in common mode
1 kV in differential mode
- Fast electrical transient bursts as per EN 61000-4-4:
2 kV on power supply, 0.25 kV on inputs/outputs,
- Electrostatic discharge as per EN 61000-4-2:
8 kV in air, 4 kV on contact

- Electromagnetic radiation field as per IEC 1000-4-3:
80 MHz to 1GHz, 10 V/m

- Immunity to voltage variations as per EN 61000-4-11.
Voltage dips:

30 % during 10 ms, capability criteria B

60 % during 100 ms, capability criteria C

Voltage interruptions:

> 95 % during 500 ms, capability criteria C

- Radiation transmission and behaviour as per EN 50081-2

Temperature as per IEC 60 688

- Operating temperature: -10 °C to +55 °C

- Storage temperature: -40 °C to +70 °C

Relative humidity as per IEC 60 688

- Operating humidity: +55 °C to 95 % d'humidity

Casing

Mounting: on symmetrical DIN rail (DIN 60715, ex DIN 46277)

Connection: terminals: 6mm² single-wire or 4mm² multi-wire screw connection with moveable clamp

Material: self-extinguishing thermoplastic UL94V0

Protection rating as per IEC 529:

Unit casing: IP 503

Front panel: IP 203

Auxiliary supply

2 switched power supply versions with a large dynamic range:

Type	Operating range	Consumption
80 to 230 Vac (45 to 65 Hz) or 110 to 325 Vdc	+10 % to -15 % of extreme values	6 VA
17 to 80 Vac (45 to 65 Hz) or 24 to 109 Vdc		

Mounting accessories

Model	Reference
Panel mounting system for T11	ACCT 1007
Panel mounting system for T12 to T33	ACCT 1006
Panel mounting system for TSPI/TSPU	ACCT 1007



TRIAD self-powered modules



The TRIAD digital transducer is available in a self-powered version (TSPI or TSPU) for applications requiring the conversion of a single AC current or voltage value.

Model	TSPI I (RMS)	TSPU U or V (RMS)
Current / Voltage inputs		
Nominal value	$I_n = 1$ or 5 A	$V_n = 100/\sqrt{3}, 110/\sqrt{3}, 120/\sqrt{3}$ V $U_n = 100, 110, 120, 230, 400$ V
Frequency	45...65 Hz	45...65 Hz
Measurement range 0...Xmax	0...100% of I_n	0...100% of U_n/V_n
Consumption	2 VA	2 VA
Analogue output		
Transfer curve	linear	
0...Ymax	0...10 mA 0...20 mA	0...10 mA 0...20 mA 0...5 V 0...10 V
Accuracy	Class 0.2: 10...100% of I_n	Class 0.2: from 50...100% of V_n / U_n
Auxiliary supply		
Self-powered		

 Parameters to be specified when ordering

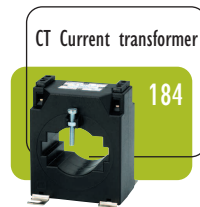
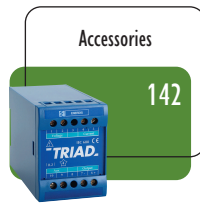
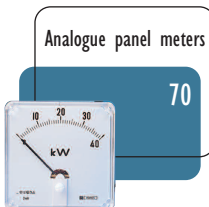
T O O R D E R

Input	Output	TSPU	
		without	with
0...1 A	0...10 mA	P01 3751 01	P01 3751 05
	0...20 mA	P01 3751 02	P01 3751 06
0...5 A	0...10 mA	P01 3751 03	P01 3751 07
	0...20 mA	P01 3751 04	P01 3751 08

Input	Output	TSPU	
		without	with
0...57.7 V	0...10 mA	P01 3752 01	P01 3752 33
	0...20 mA	P01 3752 02	P01 3752 34
	0...5 V	P01 3752 03	P01 3752 35
	0...10 V	P01 3752 04	P01 3752 36
0...63.5 V	0...10 mA	consult us	consult us
	0...20 mA	P01 3752 06	consult us
	0...5 V	consult us	consult us
	0...10 V	consult us	consult us
0...69.3 V	0...10 mA	P01 3752 09	P01 3752 41
	0...20 mA	consult us	consult us
	0...5 V	consult us	consult us
	0...10 V	consult us	consult us
0...76.2 V	0...10 mA	P01 3752 65	P01 3752 66
	0...10 mA	P01 3752 13	P01 3752 45
0...100 V	0...20 mA	P01 3752 14	P01 3752 46
	0...5 V	P01 3752 15	P01 3752 47
	0...10 V	P01 3752 16	P01 3752 48

Input	Output	TSPU	
		without	with
0...110 V	0...10 mA	P01 3752 17	P01 3752 49
	0...20 mA	consult us	consult us
	0...5 V	consult us	consult us
0...120 V	0...10 V	consult us	consult us
	0...10 mA	P01 3752 21	P01 3752 53
	0...20 mA	consult us	consult us
	0...5 V	consult us	consult us
0...230 V	0...10 V	consult us	consult us
	0...10 mA	P01 3752 25	P01 3752 57
	0...20 mA	P01 3752 26	P01 3752 58
	0...5 V	P01 3752 27	P01 3752 59
0...400 V	0...10 V	P01 3752 28	P01 3752 60
	0...10 mA	P01 3752 29	P01 3752 61
	0...20 mA	P01 3752 30	P01 3752 62
	0...5 V	P01 3752 31	P01 3752 63
	0...10 V	P01 3752 32	P01 3752 64

Associated products



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TRIAD RANGE

Factory programmed model: Calibrated products ready to be connected directly on your electrical network

Network type	1 analogue output			2 analogue outputs			3 analogue outputs			function
	T11	T21	T31	T12	T22	T32	T13	T23	T33	
Single-phase	<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>	I
	<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>	V
	<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>	F
	<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>	P
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Q
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	S
Three-phase balanced 3/4 wire	<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>	PF
	<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>	1I
	<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>	1U, 2U
	<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>	F
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	P
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Q
Three-phase unbalanced 3 wire	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	S
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PF
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1I, 2I or 3I
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1U or 2U
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	F
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	P
Three-phase unbalanced 4 wire	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Q
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	S
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PF
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1I, 2I or 3I
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1V, 2V or 3V
	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1U or 2U

Example: on a three-phase unbalanced 4 wire network, I wish to convert 3 values (3 analogue output model → T13, T23 or T33): V₁, V₂, 2V and P → model T33 (consult the "electrical connection" page 188 to select connection diagram → TD018)

T O O R D E R

1 Network type

Customized products

- Single-phase
- Three-phase balanced 3/4 wire
- Three-phase unbalanced 3 wire
- Three-phase unbalanced 4 wire

Example

TRIAD model

Example **T33**

N° of connection diagram

Example **TD018**

2 Values to be converted

Example Values 1 → Example **V1**

Values 2 → Example **V2**

Values 3 → Example **P**

TRIAD FACTORY PROGRAMMED MODULES



3 Input / Output specifications

	Basic functions				Advanced functions		
	I (true RMS)	U or V (true RMS)	F	S	P	Q	PF
Measurement inputs							
Nominal values	1 A or 5 A	100/√3, 110/√3 100, 110, 230 or 400 V (1)	50 Hz or 60 Hz		In: 1 A or 5 A Vn: 100/√3, 110/√3 or 230 V Un: 100, 110, 230 or 400 V (1)		
Measurement range	0...Xmax with 0.1 In ≤ Xmax ≤ 1.3 In	0...Xmax with 0.2 Vn ≤ Xmax ≤ 1.2 Vn	X1...X2 with Fn-5 Hz ≤ X1 ≤ Fn-1 Hz Fn+1 Hz ≤ X2 ≤ Fn+5 Hz Accuracy 0.2% of X2		0...Xmax or Xmin...Xmax with 0.7 Sn ≤ Xmax ≤ 1.3 Sn Sn = Un x In (single-phase) Sn = Un x In x √3 (3 phase - 3 wire) Sn = Vn x In x 3 (3 phase - 4 wire) (2)		0.5 lead...1...0.5 lag 0.8 lead...1...0.2 lag
Analogue outputs							
Transfer curves	Linear, two-slopes or quadratic						
Current outputs	0...Ymax or Ymin...Ymax with -20 mA ≤ Ymax ≤ +20 mA and Ymax-Ymin ≥ 5 mA						
Voltage outputs	0...Ymax or Ymin...Ymax with -10V ≤ Ymax ≤ +10V and Ymax-Ymin ≥ 2.5V						
Accuracy	Class 0.2 (± 0,2% of measurement range)						
Auxiliary supply							
Type 1	80 to 230 Vac (or 110 to 325 Vdc)						
Type 2	17 to 80 Vac (or 24 to 109 Vdc)						

(1) Other nominal values programmable from 50 to 480 V

(2) All measurement ranges programmable within the limits indicated
class 0.5 if 0.4 Sn ≤ Xmax < 0.7 Sn

Parameters to be specified when ordering

T O O R D E R

3 Input / Output specifications

Measurement input(s)

In: Direct: A On CT: A Example A Example 100 / 5 A

Un: Direct: V On VT: V Example V Example 20 kV / √3 / 100 V / √3

Fn: 50 Hz 60 Hz Example

Auxiliary supply: Type 1 Type 2

Measurement range

Xmin	Breaking point*	Xmax
<input type="text"/>	<input type="text"/>	<input type="text"/>
Example 0	-	13.8 kV
Example 0	-	13.8 kV
Example - 2.77 MW	-	+ 2.77 MW

Analogue output(s)

Transfer curve	Xmin	Breaking point*	Xmax
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Linear	4 mA	-	20 mA
Linear	4 mA	-	20 mA
Linear	4 mA	-	20 mA

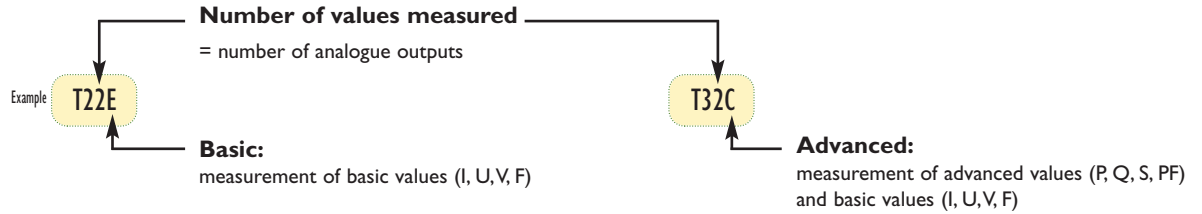
* For two-slopes transfer curves

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TRIAD RANGE

TRIAD TXXE and TXXC models are entirely programmable via the TRIADJUST software enabling the user to carry out last-minute modification of product specifications.



Network type	1 analogue output				2 analogue outputs			3 analogue outputs		Number & type of values to be converted
Network	T11E	T11C	T21C	T31C	T22E	T22C	T32C	T33E	T33C	Value
Single-phase										I
										V
										F
	TD003 TD004		TD005		TD006		TD007		TD007	P
										Q
										S
Three-phase balanced 3/4 wire										PF
										1l
										1U or 2U
	TD008 TD009		TD010		TD011			TD012		F
										P
										Q
Three-phase unbalanced 3 wire										S
										PF
										1l, 2l or 3l
	TD008 TD011		TD015		TD011 TD013		TD015	TD013 TD014		1U or 2U
										F
										P
Three-phase unbalanced 4 wire										Q
										S
										PF
	TD008		TD016		TD011 TD013		TD018			1l, 2l or 3l
										1V, 2V or 3V
										1U or 2U

Example: on a three-phase unbalanced 4 wire network, I wish to convert 3 values:
2 basic values: V1, V2 and 1 advanced value P → model T33C (Electrical connections TD018)

Associated products

<p>Analogue panel meters</p> <p>70</p>	<p>Digital panel meters</p> <p>115</p>	<p>Mounting accessories</p> <p>142</p>	<p>TRIADJUST programming software</p> <p>148</p>	<p>CT Current transformers</p> <p>184</p>
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TRIAD PROGRAMMING VIA TRIADJUST



Input / Output specifications

3



	Basic functions			Advanced functions			
	I (true RMS)	U or V (true RMS)	F	S	P	Q	PF
Measurement inputs							
Nominal values	1 A or 5 A	100 / $\sqrt{3}$, 110 / $\sqrt{3}$ 100, 110, 230 or 400 V (1)	50 Hz or 60 Hz	In: 1 A or 5 A Vn: 100 / $\sqrt{3}$, 110 / $\sqrt{3}$ or 230 V Un: 100, 110, 230 or 400 V (1)			
Measurement range	0...Xmax with 0.1 In ≤ Xmax ≤ 1.3 In	0...Xmax with 0.2 Vn ≤ Xmax ≤ 1.2 Vn	X1...X2 with Fn-5 Hz ≤ X1 ≤ Fn-1 Hz Fn+1 Hz ≤ X2 ≤ Fn+5 Hz Accuracy 0.2% of X2	0...Xmax or Xmin...Xmax with 0.7 Sn ≤ Xmax ≤ 1.3Sn Sn = Un x In (single-phase) Sn = Un x In x $\sqrt{3}$ (T3F) Sn = Vn x In x 3 (T4F) (2)			0.5 lead...1...0.5 lag 0.8 lead...1...0.2 lag
Analogue outputs							
Transfer curves	Linear, two-slopes or quadratic						
Current outputs	0...Ymax or Ymin...Ymax with -20 mA ≤ Ymax ≤ +20 mA and Ymax-Ymin ≥ 5 mA						
Voltage outputs	0...Ymax or Ymin...Ymax with -10 V ≤ Ymax ≤ +10 V and Ymax-Ymin ≥ 2.5 V						
Accuracy	Class 0.2 (± 0.2 % of measurement range)						
Auxiliary supply							
Type 1	80 to 230 Vac (or 110 to 325 Vdc)						
Type 2	17 to 80 Vac (or 24 to 109 Vdc)						

- (1) Other nominal values programmable from 50 to 480 V
 (2) All measurement ranges programmable within limits indicated
 Class 0.5 if 0.4 Sn ≤ Xmax < 0.7 Sn

Parameters to be specified when ordering
 Parameters programmable via TRIADJUST

T O O R D E R

1 analogue output

2 analogue outputs

3 analogue outputs

Model	Auxiliary supply	Output(s)	Tropicalization	
			with	without
Basic values				
T11E	Type 1	current	P01 3750 05	P01 3750 41
		voltage	P01 3750 06	P01 3750 42
	Type 2	current	P01 3750 07	P01 3750 43
		voltage	P01 3750 08	P01 3750 44
Advanced and basic values				
T11C	Type 1	current	P01 3750 01	P01 3750 37
		voltage	P01 3750 02	P01 3750 38
	Type 2	current	P01 3750 03	P01 3750 39
		voltage	P01 3750 04	P01 3750 40
T21C	Type 1	current	P01 3750 09	P01 3750 45
		voltage	P01 3750 10	P01 3750 46
	Type 2	current	P01 3750 11	P01 3750 47
		voltage	P01 3750 12	P01 3750 48
T31C	Type 1	current	P01 3750 13	P01 3750 49
		voltage	P01 3750 14	P01 3750 50
	Type 2	current	P01 3750 15	P01 3750 51
		voltage	P01 3750 16	P01 3750 52

Model	Auxiliary supply	Output(s)	Tropicalization	
			with	without
Basic values				
T22E	Type 1	current	P01 3750 21	P01 3750 57
		voltage	P01 3750 22	P01 3750 58
	Type 2	current	P01 3750 23	P01 3750 59
		voltage	P01 3750 24	P01 3750 60
Advanced and basic values				
T22C	Type 1	current	P01 3750 17	P01 3750 53
		voltage	P01 3750 18	P01 3750 54
	Type 2	current	P01 3750 19	P01 3750 55
		voltage	P01 3750 20	P01 3750 56
T32C	Type 1	current	P01 3750 25	P01 3750 61
		voltage	P01 3750 26	P01 3750 62
	Type 2	current	P01 3750 27	P01 3750 63
		voltage	P01 3750 28	P01 3750 64

Model	Auxiliary supply	Output(s)	Tropicalization	
			with	without
Basic values				
T33E	Type 1	voltage	P01 3750 33	P01 3750 69
		current	P01 3750 34	P01 3750 70
	Type 2	voltage	P01 3750 35	P01 3750 71
		current	P01 3750 36	P01 3750 72
Advanced and basic values				
T33C	Type 1	current	P01 3750 29	P01 3750 65
		voltage	P01 3750 30	P01 3750 66
	Type 2	current	P01 3750 31	P01 3750 67
		voltage	P01 3750 32	P01 3750 68

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