CURRENT

DAT 25 current transducers convert AC input into load independent DC current & voltage output signal. This signal is highly accurate & proportionally linear to the AC input. T25-I versions convert the AC sinusoidal waveforms to linear DC output calibrated to the RMS value.

Models

T25-IS	-	single self-powered phase current
T25-IL	-	single phase life-zero current
T25-I3	-	three phase current
T25-IR	-	single phase RMS current

General Specifications

Test voltage
4kV AC rms 1min between terminal/case
2kV AC rms 1min between
input/output/auxillary according to IEC801-4

Impulse test
5kV, 1.2/50μs according to IEC 255-4

Noise test
2.5kV, 1MHz according to IEC 255-22-1

Radio Screening
RFI degree complies with VDE0875

Working condition
-5 °C to 60 °C, 20-99% RH
non condensing

Storage condition
-20 °C to 70 °C, 20-99% RH
Non-condensing

Humidity
JWE operation class according to
DIN 40040

Stability
100 ppm / °C, < ± 0.2% drift per year,
non cumulative

Magnetic effect
<0.05% change 1M centre 100AT,
synchronized with line frequency

Aux power effect
<0.005% per volt change

Technical Specifications

Input

Current
1A, 5A & 10A (others on request)

Burden
0.3VA / element
1VA / element (for T25-IS)

permissible overload
2 X rated current continuous,
10 X rated current - 10 secs,
25 X rated current - 2 secs,
50 X rated current - 1 sec

Frequency
50 or 60 Hz ± 2hz

Output

Output ranges
0 ... 1 mA into 0-10kΩ
0 ... 5 mA into 0-2kΩ
0 ... 10mA into 0-1kΩ
0 ... 20 mA into 0-500Ω
4 ... 20 mA into 0-500Ω

0 ... 1V, min 200Ω
0 ... 5V, min 1kΩ
0 ... 10V, min 2kΩ
1 ... 5V, min 1kΩ
2 ... 10V, min 2kΩ
(other ranges on request)

Accuracy (23 ±5 °C)
±0.2%(avg.) ±0.4% (RMS)
according to IEC 688-1

Output load
current - 10V drop max.
voltage - 5mA drive max.

Ripple Factor
less than 0.5% p-p

Response time
<400ms

Output Adjustment
span & zero adjustments where applicable

Auxillary Power Supply

Standard Range
110Vor 220V ±20% 50/60Hz,

<3VA (for T25-IL & T25-IR)
<8VA (for T25-I3)

Options
self power and other AC power supplies up to 440V ac on request. DC powered models available at additional costs

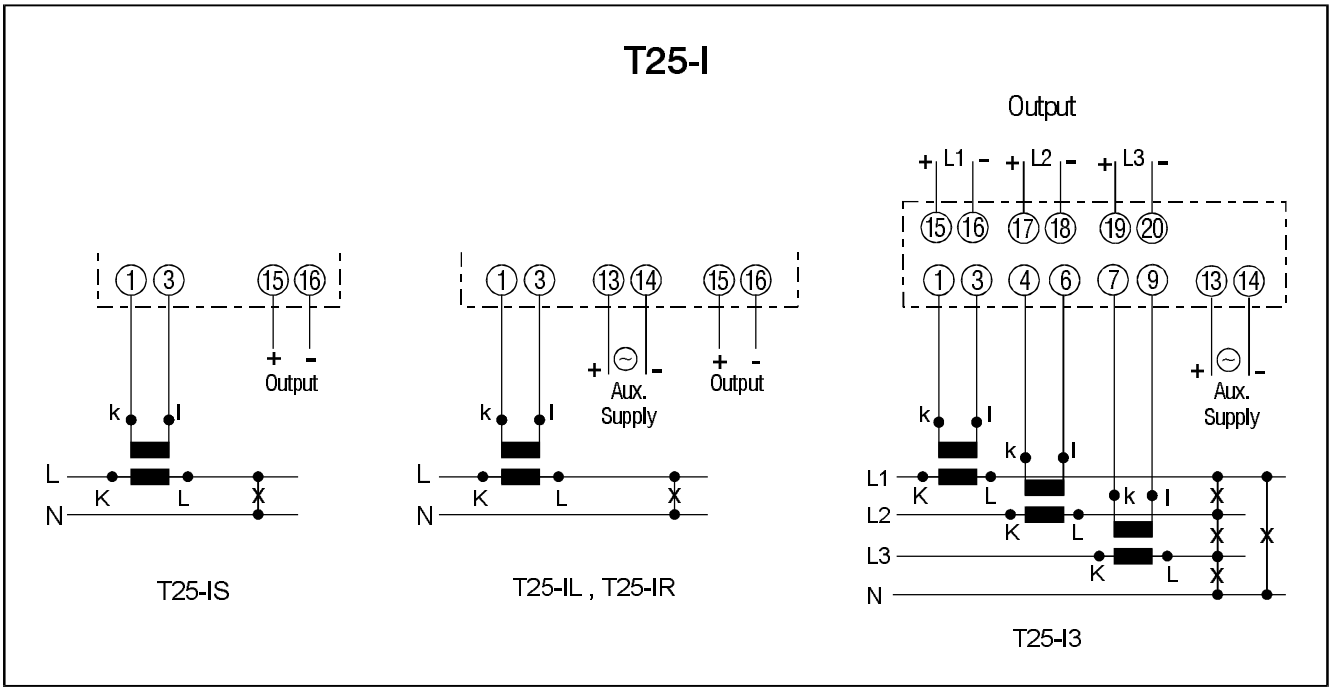
Physical Specifications

Dimensions
T25-IS / T25-IL / T25-IR
45W x 78H x 116D mm

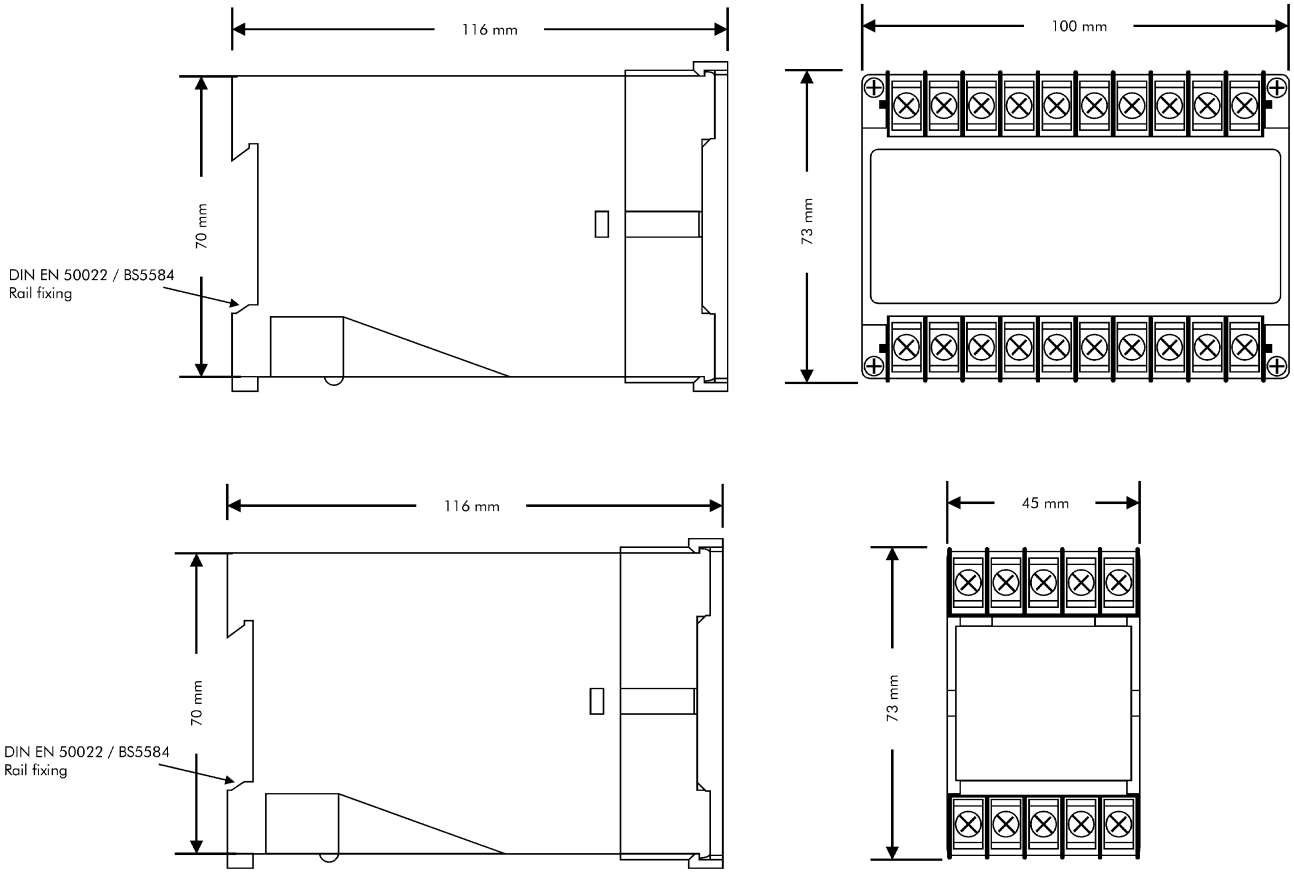
T25-I3
100W x 78H x 116D mm

Enclosure code
IP 50 (case)
IP 30 (terminal)
according to IEC 529/DIN40050

Wiring Connections



Dimensional Drawings



VOLTAGE

DAT 25 voltage transducers convert AC input into load independent DC current & voltage output signal. This signal is highly accurate & proportionally linear to the AC input. T25-V versions convert the AC sinusoidal waveforms to linear DC output calibrated to the RMS value.

Models

T25-VS	-	single phase self-powered voltage
T25-VL	-	single phase life-zero voltage
T25-V3	-	three phase voltage
T25-VR	-	single phase RMS voltage

General Specifications

Test voltage
4kV AC rms 1min between terminal/case
2kV AC rms 1min between
input/output/auxillary according to IEC801-4

Impulse test
5kV, 1.2/50μs according to IEC 255-4

Noise test
2.5kV, 1MHz according to IEC 255-22-1

Radio Screening
RFI degree complies with VDE0875

Working condition
-5 °C to 60 °C, 20-99% RH
non condensing

Storage condition
-20 °C to 70 °C, 20-99% RH
Non-condensing

Humidity
JWE operation class according to
DIN 40040

Stability
100 ppm / °C, < ± 0.2% drift per year,
non cumulative

Magnetic effect
<0.05% change 1M centre 100AT,
synchronized with line frequency

Aux power effect
<0.005% per volt change

Technical Specifications

Input

Voltage
150V, 300V & 500V

Burden
0.3VA / element
1VA / element (for T25-VS)

permissible overload
1.25 X rated voltage continuouts

Frequency
50 or 60 Hz ± 2hz

Output

Output ranges
0 ... 1 mA into 0-10kΩ
0 ... 5 mA into 0-2kΩ
0 ... 10mA into 0-1kΩ
0 ... 20 mA into 0-500Ω
4 ... 20 mA into 0-500Ω

0 ... 1V, min 200Ω
0 ... 5V, min 1kΩ
0 ... 10V, min 2kΩ
1 ... 5V, min 1kΩ
2 ... 10V, min 2kΩ
(other ranges on request)

Accuracy (23 ±5 °C)
±0.2%(avg.) ±0.4% (RMS)
according to IEC 688-1

Output load
current - 10V drop max.
voltage - 5mA drive max.

Ripple Factor
less than 0.5% p-p

Response time
<400ms

Output Adjustment
span & zero adjustments where applicable

Auxillary Power Supply

Standard Range
110V, 220V ±20% 50/60Hz,

<3VA (for T25-VL & T25-VR)
<8VA (for T25-V3)

Options
self power and other AC power supplies up to 440V ac on request. DC powered models available at additional costs

Physical Specifications

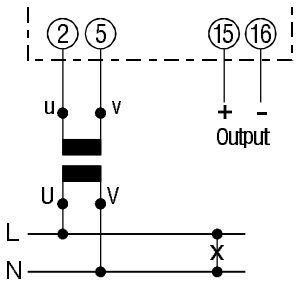
Dimensions
T25-VS / T25-VL / T25-VR
45W x 78H x 116D mm

T25-V3
100W x 78H x 116D mm

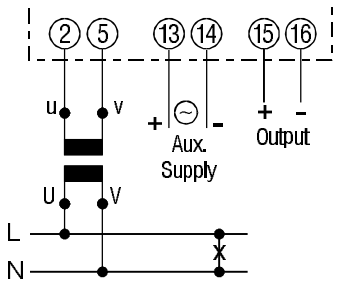
Enclosure code
IP 50 (case)
IP 30 (terminal)
according to IEC 529/DIN40050

Wiring Connections

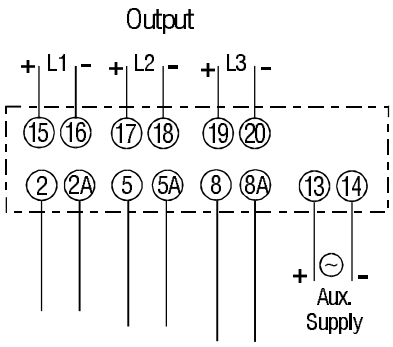
T25-V



T25-VS



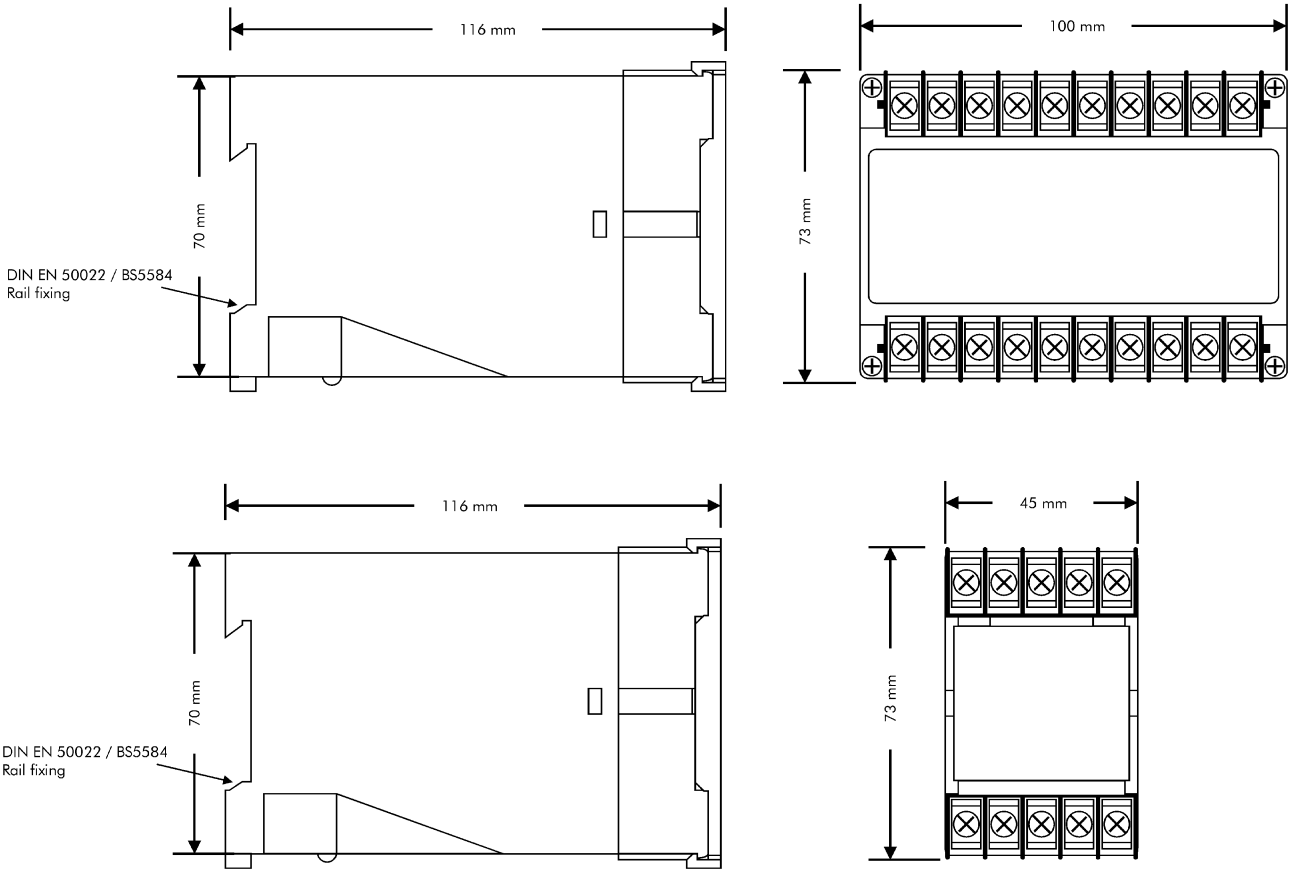
T25-VL , T25-VR



* 3phase voltage measurement
2, 5, 8 are I/P for L1, L2 & L3 respectively.
- For line voltage monitoring
Link : 8A to 2
2A to 5
5A to 8
- For phase voltage monitoring
Link 2A, 5A, 8A as neutral terminal

T25-V3

Dimensional Drawings



FREQUENCY

The T25-LF frequency transducer converts AC voltage to a linear DC output signal proportional to the frequency of the input. Employing a crystal based oscillator conversion principle, the measured frequency band is accurately represented by proportional linear DC voltage or current output.

Model

T25-LF - frequency transducer

General Specifications

Test voltage
4kV AC rms 1min between terminal/case
2kV AC rms 1min between
input/output/auxillary according to IEC801-4

Impulse test
5kV, 1.2/50μs according to IEC 255-4

Noise test
2.5kV, 1MHz according to IEC 255-22-1

Radio Screening
RFI degree complies with VDE0875

Working condition
-5 °C to 60 °C, 20-99% RH
non condensing

Storage condition
-20 °C to 70 °C, 20-99% RH
non condensing

Humidity
JWE operation class according to
DIN 40040

Stability
100 ppm / °C, < ± 0.2% drift per year, non cumulative

Magnetic effect
<0.05% change 1M centre 100AT, synchronized with line frequency

Aux power effect
<0.005% per volt change

Technical Specifications

Input

Voltage
50-300V

Burden
0.2VA

permissible overload
1.25 X rated voltage continuous

Frequency
50 or 60 Hz

Measuring range
± 0.5 Hz,
± 1 Hz,
± 2hz,
± 5Hz & ± 10Hz

Output

Output ranges
0 ... 1 mA into 0-10kΩ
0 ... 5 mA into 0-2kΩ
0 ... 10mA into 0-1kΩ
0 ... 20 mA into 0-500Ω
4 ... 20 mA into 0-500Ω

0 ... 1V, min 200Ω
0 ... 5V, min 1kΩ
0 ... 10V, min 2kΩ
1 ... 5V, min 1kΩ
2 ... 10V, min 2kΩ
(other ranges on request)

Accuracy (23 ± 5 °C)
± 0.025% of rated frequency
according to IEC 688-1

Output load
current - 10V drop max.
voltage - 5mA drive max.

Ripple Factor
less than 0.5% p-p

Response time
<400ms

Output Adjustment
span & zero adjustments where applicable

Auxillary Power Supply

Standard Range
110V, 220V ± 20% 50/60Hz, <3.5VA

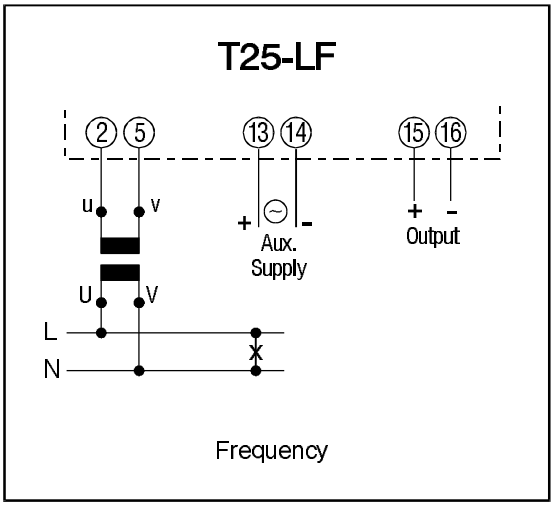
Options
self power and other AC power supplies up to 440V ac on request. DC powered models available at additional costs

Physical Specifications

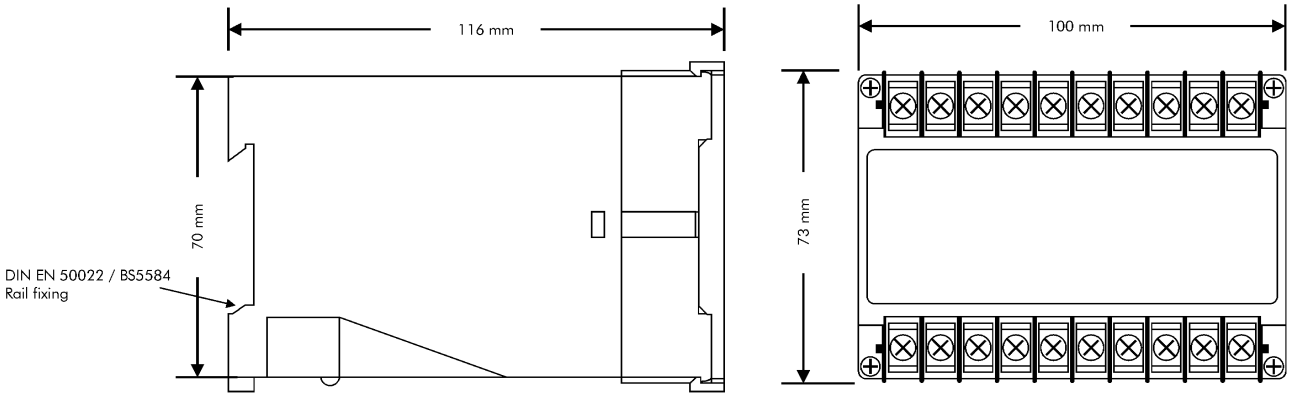
Dimensions
100W x 78H x 116D mm

Enclosure code
IP 50 (case)
IP 30 (terminal)
according to IEC 529/DIN40050

Wiring Connections



Dimensional Drawings



POWER FACTOR

The zero-crossing detector modulation conversion principle is used to produce a corresponding linear DC output signal proportional to true power factor of the power system. The transducers can be use in a single or three phase system.

Model

T25-PF10	-	Single phase Power Factor transducer
T25-PF12	-	Three phase Power Factor transducer

General Specifications

Test voltage
4kV AC rms 1min between terminal/case
2kV AC rms 1min between
input/output/auxillary according to IEC801-4

Impulse test
5kV, 1.2/50μs according to IEC 255-4

Noise test
2.5kV, 1MHz according to IEC 255-22-1

Radio Screening
RFI degree complies with VDE0875

Working condition
-5 °C to 60 °C, 20-99% RH
non condensing

Storage condition
-20 °C to 70 °C, 20-99% RH
non condensing

Humidity
JWE operation class according to
DIN 40040

Stability
100 ppm / °C, < ± 0.2% drift per year, non cumulative

Magnetic effect
<0.05% change 1M centre 100AT,
synchronized with line frequency

Aux power effect
<0.005% per volt change

Technical Specifications

Input

Voltage
120V, 240V or 415V, ± 25%

Burden
0.2VA

permissible overload
1.25 X rated voltage continuous

Current

1A, 5A

Burden
0.3VA typically

permissible overload
2 X rated cotinuous,
10 X rated - 10secs,
25 X rated - 2secs,
50 X rated - 1sec.

Frequency
50 or 60 Hz, ± 2hz

Measuring range
± 30°, ± 60°, ± 90°, ± 180° & 0-360°

Output

Output ranges
0 ... 1 mA into 0-10kΩ
0 ... 5 mA into 0-2kΩ
0 ... 10mA into 0-1kΩ
0 ... 20 mA into 0-500Ω
4 ... 20 mA into 0-500Ω

0 ... 1V, min 200Ω
0 ... 5V, min 1kΩ
0 ... 10V, min 2kΩ
1 ... 5V, min 1kΩ
2 ... 10V, min 2kΩ
(other ranges on request)

Accuracy (23 ± 5 °C)
± 0.2% RO according to IEC 688-1

Output load
current - 10V drop max.
voltage - 5mA drive max.

Ripple Factor
less than 0.5% p-p

Response time
<400ms

Output Adjustment
span & zero adjustments where applicable

Auxillary Power Supply

Standard Range
110V, 220V ± 20%
50/60Hz, <3.5VA

Options
self power and other AC power supplies up to 440V ac on request. DC powered models available at additional costs

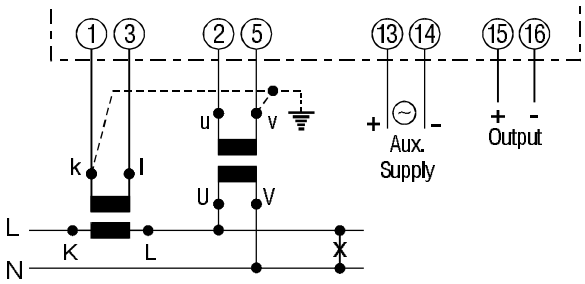
Physical Specifications

Dimensions
100W x 78H x 116D mm

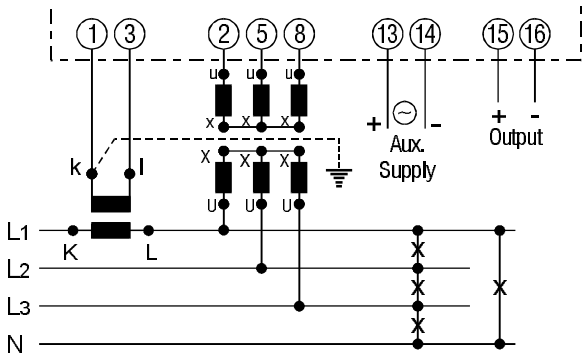
Enclosure code
IP 50 (case)
IP 30 (terminal)
according to IEC 529/DIN40050

Wiring Connections

T25-PF..



Single Phase ~ T25-PF10



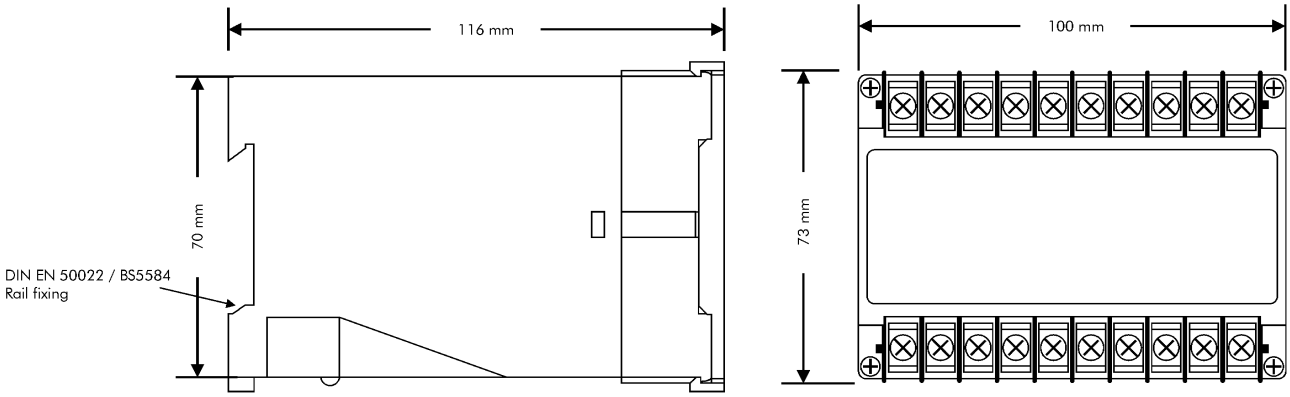
3Phase 4wire ~ T25-PF12

★ Voltage Transformers & Auxillary Power Supply are shown where applicable.

★ Current Transformer's primary windings are designated in capital K & L which are also commonly represented as P1 & P2 respectively. Its secondary windings are termed k & l which are respectively similar to S1 & S2.

★ Output signal is connected to the 144mm meter scaled to read the Power factor.

Dimensional Drawings



PHASE ANGLE

The zero-crossing detector modulation conversion principle is used to produce a corresponding linear DC output signal proportional to phase angle of the power system. The transducers can be use in a single or three phase system.

Model

T25-PA10 - Single phase Phase Angle transducer
T25-PA12 - Three phase Phase Angle transducer

General Specifications

Test voltage
4kV AC rms 1min between terminal/case
2kV AC rms 1min between
input/output/auxillary according to IEC801-4

Impulse test
5kV, 1.2/50μs according to IEC 255-4

Noise test
2.5kV, 1MHz according to IEC 255-22-1

Radio Screening
RFI degree complies with VDE0875

Working condition
-5 °C to 60 °C, 20-99% RH
non condensing

Storage condition
-20 °C to 70 °C, 20-99% RH
non condensing

Humidity
JWE operation class according to
DIN 40040

Stability
100 ppm/°C, < ± 0.2% drift per year,
non cumulative

Magnetic effect
<0.05% change 1M centre 100AT,
synchronized with line frequency

Aux power effect
<0.005% per volt change

Technical Specifications

Input

Voltage
120V, 240V or 415V, ± 25%

Burden
0.2VA

permissible overload
1.25 X rated voltage continuous

Current

1A, 5A

Burden
0.3VA typically

Permissible overload
2 X rated cotinuous,
10 X rated - 10secs,
25 X rated - 2secs,
50 X rated - 1sec.

Frequency
50 or 60 Hz, ± 2hz

Measuring range
± 30°, ± 60°, ± 90°, ± 80° & 0-360°

Output

Output ranges
0 ... 1 mA into 0-10kΩ
0 ... 5 mA into 0-2kΩ
0 ... 10mA into 0-1kΩ
0 ... 20 mA into 0-500Ω
4 ... 20 mA into 0-500Ω

0 ... 1V, min 200Ω
0 ... 5V, min 1kΩ
0 ... 10V, min 2kΩ
1 ... 5V, min 1kΩ
2 ... 10V, min 2kΩ
(other ranges on request)

Accuracy (23 ± 5 °C)
± 0.2% RO according to IEC 688-1

Output load
current - 10V drop max.
voltage - 5mA drive max.

Ripple Factor
less than 0.5% p-p

Response time
<400ms

Output Adjustment
span & zero adjustments where applicable

Auxillary Power Supply

Standard Range
110V, 220V ± 20%
50/60Hz, <3.5VA

Options
self power and other AC power supplies up to 440V ac on request. DC powered models available at additional costs

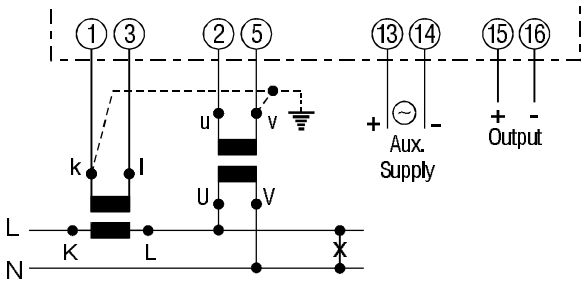
Physical Specifications

Dimensions
100W x 78H x 116D mm

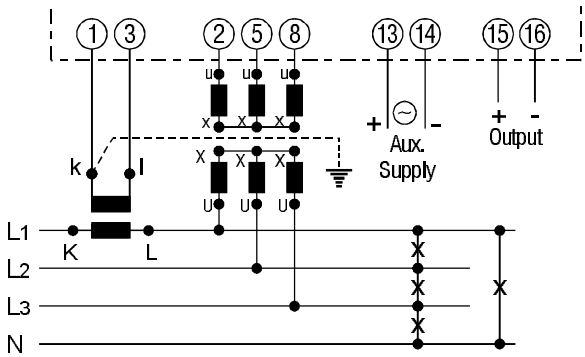
Enclosure code
IP 50 (case)
IP 30 (terminal)
according to IEC 529/DIN40050

Wiring Connections

T25-PA..



Single Phase ~ T25-PA10



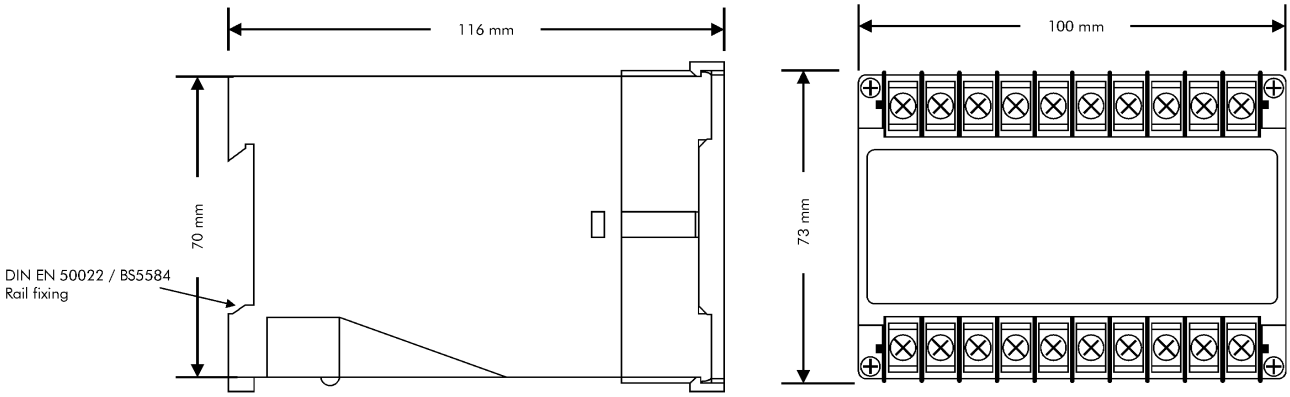
3Phase ~ T25-PA20

★ Voltage Transformers & Auxillary Power Supply are shown where applicable.

★ Current Transformer's primary windings are designated in capital K & L which are also commonly represented as P1 & P2 respectively. Its secondary windings are termed k & l which are respectively similar to S1 & S2.

★ Output signal is connected to the 144mm meter scaled to read the Power factor.

Dimensional Drawings



DAT 25
POWER-LINE TRANSDUCERS

T25-W..

ACTIVE POWER

Time-division-multiplication (TDM) principle of computing the AC power inputs to a corresponding DC output value. The measurements of active power of single or three phase balanced or unbalanced systems, are presisely converted to a highly accurate linear DC voltage or current output.

Model

T25-W10	-	single phase watt transducer
T25-W12	-	3ph 3w balanced load watt transducer
T25-W13	-	3ph 4 w balanced load watt transducer
T25-W20	-	3ph 3w unbalanced load watt transducer
T25-W30	-	3ph 4w unbalanced load watt transducer

General Specifications

Test voltage
4kV AC rms 1min between terminal/case
2kV AC rms 1min between
input/output/auxillary according to IEC801-4

Impulse test
5kV, 1.2/50μs according to IEC 255-4

Noise test
2.5kV, 1MHz according to IEC 255-22-1

Radio Screening
RFI degree complies with VDE0875

Working condition
-5 °C to 60 °C, 20-99% RH
non condensing

Storage condition
-20 °C to 70 °C, 20-99% RH
non condensing

Humidity
JWE operation class according to
DIN 40040

Stability
100 ppm / °C, < ± 0.2% drift per year,
non cumulative

Magnetic effect
<0.05% change 1M centre 100AT,
synchronized with line frequency

Aux power effect
<0.005% per volt change

Technical Specifications

Input

Voltage
69V (3ph 4w), 120V, 240V or
415V, ± 25%

Burden
0.2VA

permissible overload
1.25 X rated voltage continuous

Current
1A, 5A

Burden
0.3VA typically

permissible overload
2 X rated cotinuous,
10 X rated - 10secs,
25 X rated - 2 secs,
50 X rated - 1 sec.

Frequency
50 or 60 Hz, ± 2hz

Output

Output ranges
0 ... 1 mA into 0-10kΩ
0 ... 5 mA into 0-2kΩ
0 ... 10mA into 0-1kΩ
0 ... 20 mA into 0-500Ω
4 ... 20 mA into 0-500Ω

0 ... 1V, min 200Ω
0 ... 5V, min 1kΩ
0 ... 10V, min 2kΩ
1 ... 5V, min 1kΩ
2 ... 10V, min 2kΩ
(other ranges on request)

Accuracy (23 ± 5 °C)
± 0.2 % RO according to IEC 688-1

Output load
current - 10V drop max.
voltage - 5mA drive max.

Ripple Factor
less than 0.5% p-p

Response time
<400ms

Output Adjustment
span & zero adjustments where applicable

Auxillary Power Supply

Standard Range
110V, 220V ± 20% 50/60Hz, <7VA

Options
self power and other AC power supplies up to
440V ac on request. DC powered models
available at additional costs

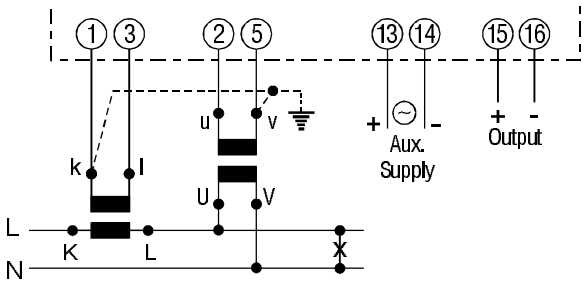
Physical Specifications

Dimensions
100W x 78H x 116D mm

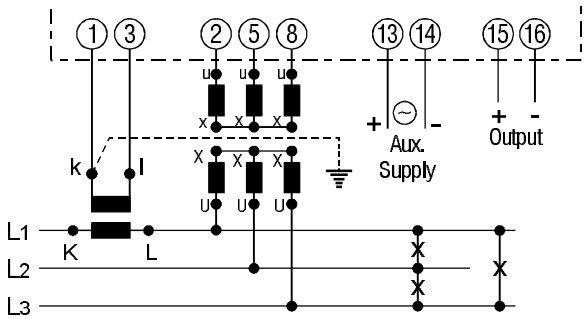
Enclosure code
IP 50 (case)
IP 30 (terminal)
according to IEC 529/DIN40050

Wiring Connections

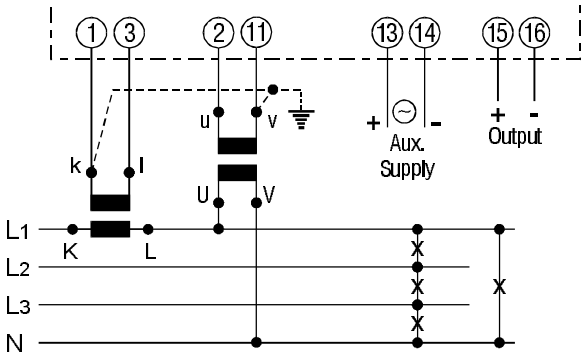
T25-W..



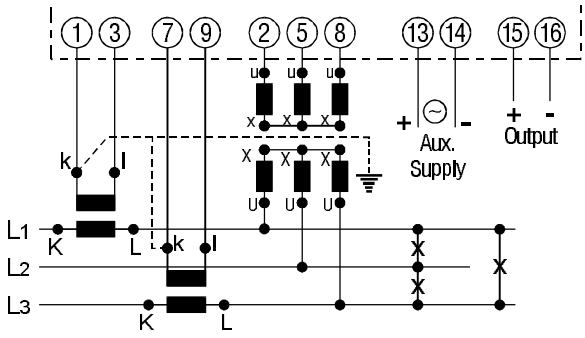
Single Phase ~ T25-W10



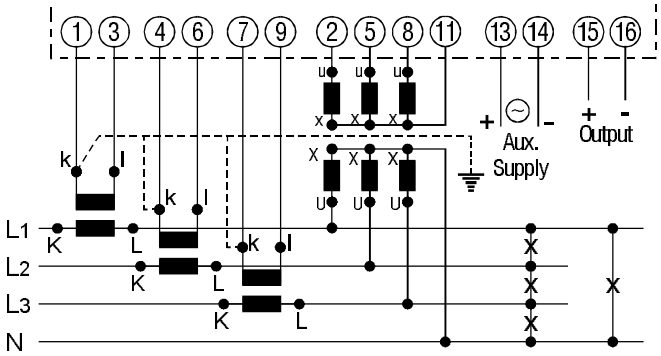
3Phase 3Wire Balanced Load
T25-W12



3Phase 4Wire Balanced Load
T25-W13



3Phase 3Wire Unbalanced Load
T25-W20

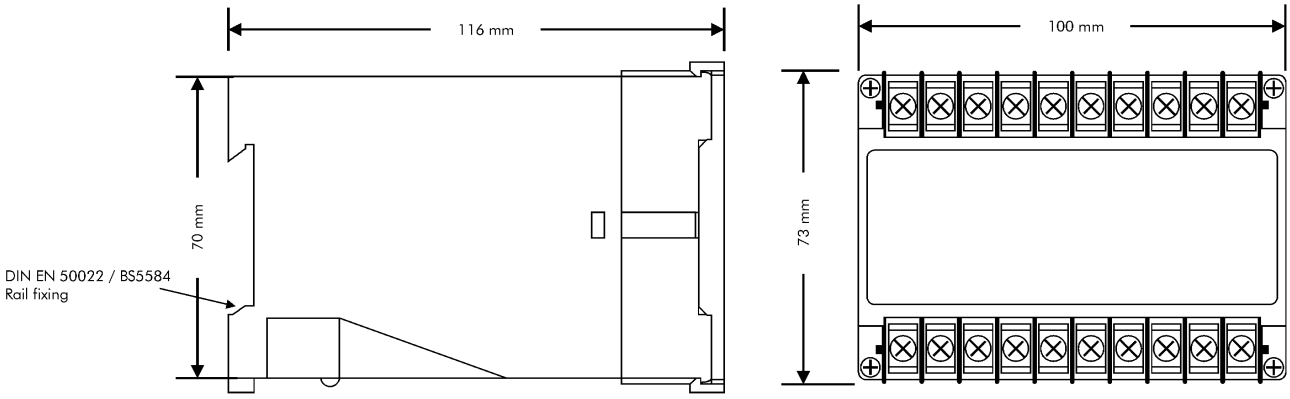


3Phase 4Wire Unbalanced Load
T25-W30

★ Voltage Transformers & Auxillary Power Supply are shown where applicable.

★ Current Transformer's primary windings are designated in capital K & L which are also commonly represented as P1 & P2 respectively. Its secondary windings are termed k & l which are respectively similar to S1 & S2.

Dimensional Drawings



DAT 25
POWER-LINE TRANSDUCERS

T25-B..

REACTIVE POWER

Time-division-multiplication (TDM) principle of computing the AC power inputs to a corresponding DC output value. The measurements of reactive power of three phase balanced or unbalanced systems, are precisely converted to a highly accurate linear DC voltage or current output.

Model

T25-B12	-	3ph 3w balanced load var transducer
T25-B13	-	3ph 4w balanced load var transducer
T25-B20	-	3ph 3w unbalanced load var transducer
T25-B30	-	3ph 4w unbalanced load var transducer

General Specifications

Test voltage
4kV AC rms 1min between terminal/case
2kV AC rms 1min between input/output/auxillary according to IEC801-4

Impulse test
5kV, 1.2/50μs according to IEC 255-4

Noise test
2.5kV, 1MHz according to IEC 255-22-1

Radio Screening
RFI degree complies with VDE0875

Working condition
-5 °C to 60 °C, 20-99% RH non condensing

Storage condition
-20 °C to 70 °C, 20-99% RH non condensing

Humidity
JWE operation class according to DIN 40040

Stability
100 ppm / °C, < ± 0.2% drift per year, non cumulative

Magnetic effect
<0.05% change 1M centre 100AT, synchronized with line frequency

Aux power effect
<0.005% per volt change

Technical Specifications

Input

Voltage
69V (3ph 4w), 120V, 240V or 415V, ± 25%

Burden
0.2VA

permissible overload
1.25 X rated voltage continuous

Current
1A, 5A

Burden
0.3VA typically

permissible overload
2 X rated cotinuous,
10 X rated - 10secs,
25 X rated - 2 secs,
50 X rated - 1 sec.

Frequency
50 or 60 Hz, ± 2hz

Output

Output ranges
0 ... 1 mA into 0-10kΩ
0 ... 5 mA into 0-2kΩ
0 ... 10mA into 0-1kΩ
0 ... 20 mA into 0-500Ω
4 ... 20 mA into 0-500Ω

0 ... 1V, min 200Ω
0 ... 5V, min 1kΩ
0 ... 10V, min 2kΩ
1 ... 5V, min 1kΩ
2 ... 10V, min 2kΩ
(other ranges on request)

Accuracy (23 ± 5 °C)
± 0.2% RO according to IEC 688-1

Output load
current - 10V drop max.
voltage - 5mA drive max.

Ripple Factor
less than 0.5% p-p

Response time
<400ms

Output Adjustment
span & zero adjustments where applicable

Auxillary Power Supply

Standard Range
110V, 220V ± 20% 50/60Hz, <3.5VA

Options
self power and other AC power supplies up to 440V ac on request. DC powered models available at additional costs

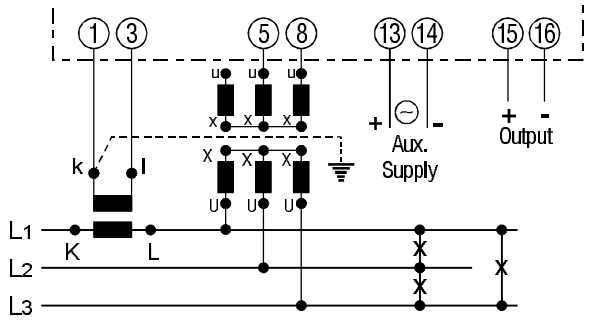
Physical Specifications

Dimensions
100W x 78H x 116D mm

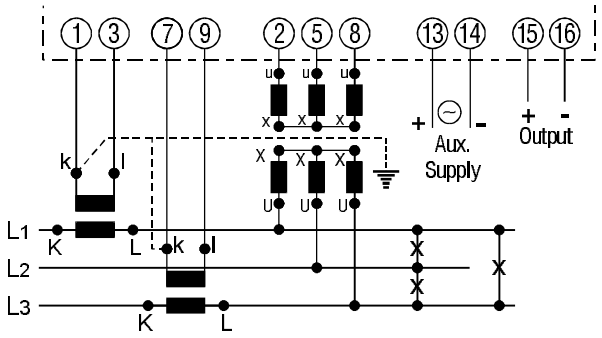
Enclosure code
IP 50 (case)
IP 30 (terminal)
according to IEC 529/DIN40050

Wiring Connections

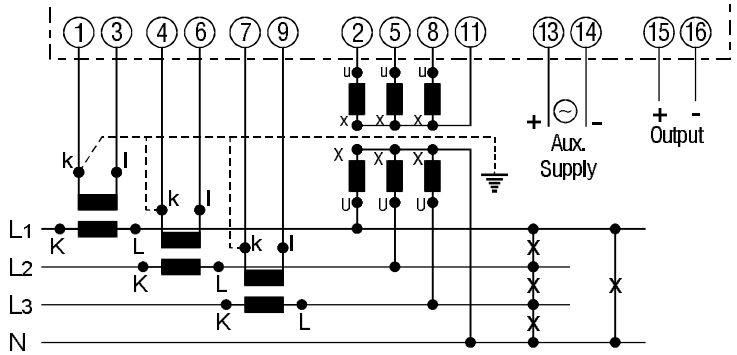
T25-B..



3Phase 3 or 4Wire Balanced Load
T25-B12 / B13



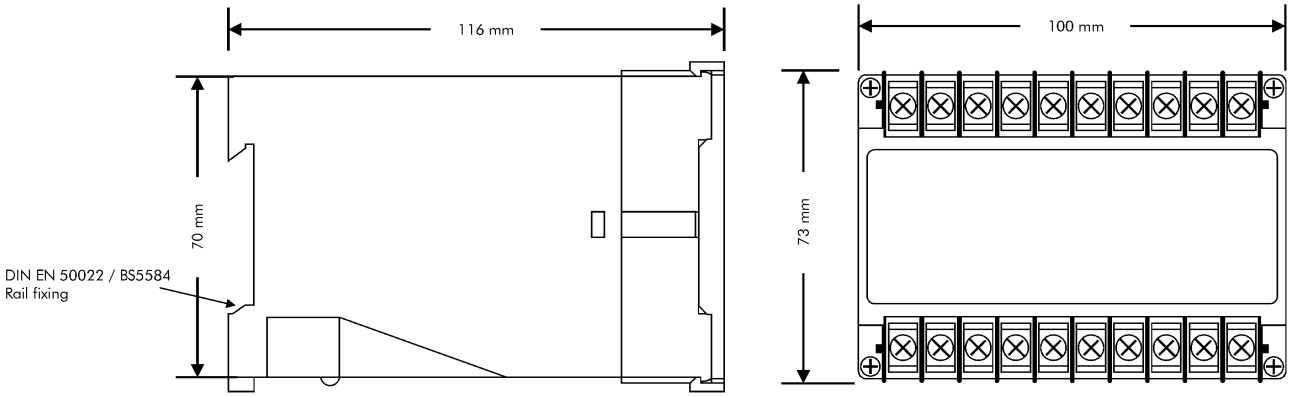
3Phase 3Wire Unbalanced Load
T25-B20



3Phase 4Wire Unbalanced Load
T25-B30

★ Voltage Transformers & Auxillary Power Supply are shown where applicable.
★ Current Transformer's primary windings are designated in capital K & L which are also commonly represented as P1 & P2 respectively. Its secondary windings are termed k & l which are respectively similar to S1 & S2.

Dimensional Drawings



ACTIVE & REACTIVE POWER

T25-WB is a combined watt and var electronic transducer utilising the time-division-multiplication (TDM) principle of computing the AC active and reactive power inputs to produce two corresponding DC output values from a single unit.

Model

T25-WB12	-	3ph 3w balanced load watt & var transducer
T25-WB13	-	3ph 4 w balanced load watt & var transducer
T25-WB20	-	3ph 3w unbalanced load watt & var transducer
T25-WB30	-	3ph 4w unbalanced load watt & var transducer

General Specifications

Test voltage
4kV AC rms 1min between terminal/case
2kV AC rms 1min between input/output/auxillary according to IEC801-4

Impulse test
5kV, 1.2/50μs according to IEC 255-4

Noise test
2.5kV, 1MHz according to IEC 255-22-1

Radio Screening
RFI degree complies with VDE0875

Working condition
-5 °C to 60 °C, 20-99% RH non condensing

Storage condition
-20 °C to 70 °C, 20-99% RH non condensing

Humidity
JWE operation class according to DIN 40040

Stability
100 ppm / °C, < ± 0.2% drift per year, non cumulative

Magnetic effect
<0.05% change 1M centre 100AT, synchronized with line frequency

Aux power effect
<0.005% per volt change

Technical Specifications

Input

Voltage
69V (3ph 4w), 120V, 240V or 415V, ± 25%

Burden
0.2VA

permissible overload
1.25 X rated voltage continuous

Current
1A, 5A

Burden
0.3VA typically

permissible overload
2 X rated cotinuous,
10 X rated - 10secs,
25 X rated - 2secs,
50 X rated - 1sec.

Frequency
50 or 60 Hz, ± 2hz

Output

Output ranges
0 ... 1 mA into 0-10kΩ
0 ... 5 mA into 0-2kΩ
0 ... 10mA into 0-1kΩ
0 ... 20 mA into 0-500Ω
4 ... 20 mA into 0-500Ω

0 ... 1V, min 200Ω
0 ... 5V, min 1kΩ
0 ... 10V, min 2kΩ
1 ... 5V, min 1kΩ
2 ... 10V, min 2kΩ
(other ranges on request)

Accuracy (23 ± 5 °C)
± 0.2% RO according to IEC 688-1

Output load
current - 10V drop max.
voltage - 5mA drive max.

Ripple Factor
less than 0.5% p-p

Response time
<400ms

Output Adjustment
span & zero adjustments where applicable

Auxillary Power Supply

Standard Range
110V, 220V ± 20% 50/60Hz, <7VA

Options
self power and other AC power supplies up to 440V ac on request. DC powered models available at additional costs

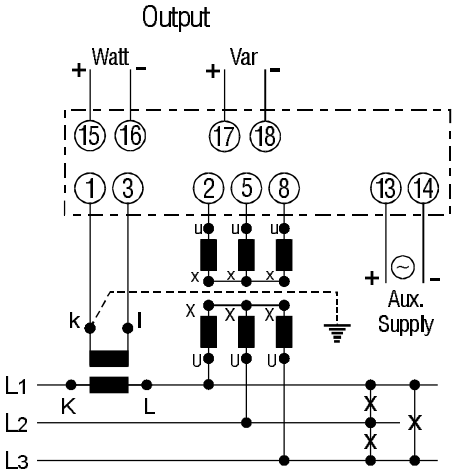
Physical Specifications

Dimensions
100W x 78H x 116D mm

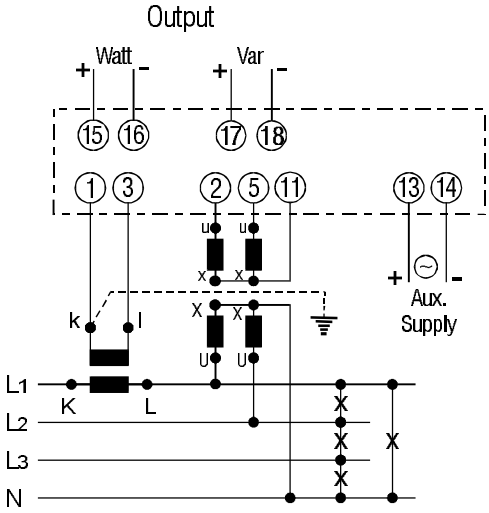
Enclosure code
IP 50 (case)
IP 30 (terminal)
according to IEC 529/DIN40050

Wiring Connections

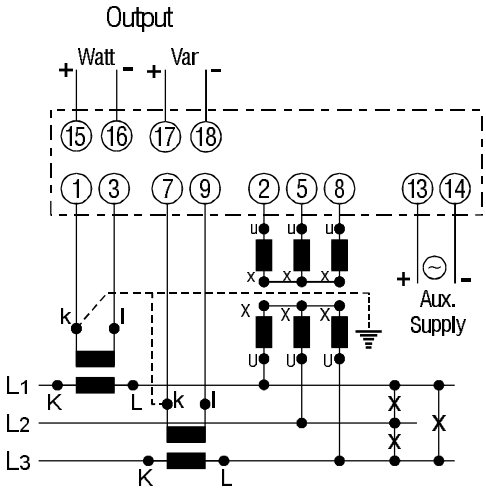
T25-WB



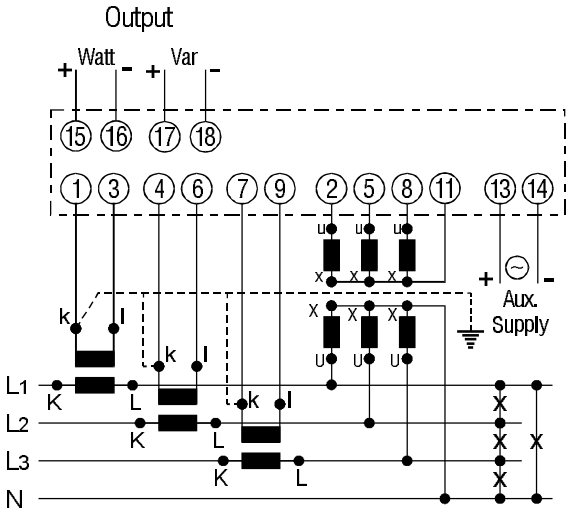
3Phase 3Wire Balanced Load
T25-WB12



3Phase 4Wire Balanced Load
T25-WB13



3Phase 3Wire Unbalanced Load
T25-WB20

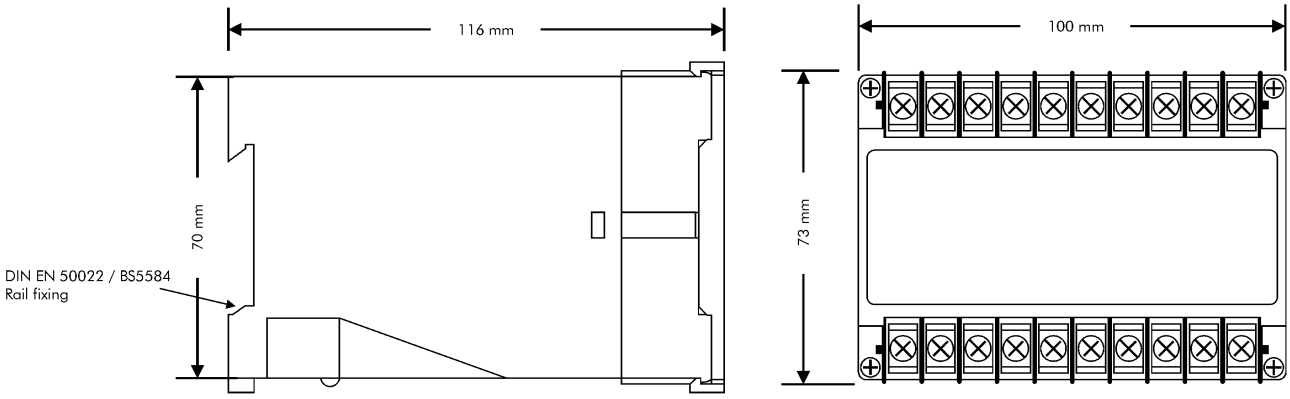


3Phase 4Wire Unbalanced Load
T25-WB30

★ Voltage Transformers & Auxillary Power Supply are shown where applicable.

★ Current Transformer's primary windings are designated in capital K & L which are also commonly represented as P1 & P2 respectively. Its secondary windings are termed k & l which are respectively similar to S1 & S2.

Dimensional Drawings



ACTIVE POWER & ENERGY

The T25-WE are electronic transducers converting active power and energy in single or three phase balanced or unbalanced systems to simultaneously produce an analogue DC output for instantaneous power signal and a digital pulse output for cumulative energy signal.

Model

T25-WE10	-	single phase watt & watt-hour transducer
T25-WE12	-	3ph 3w bal. load watt & watt-hour transducer
T25-WE13	-	3ph 4w bal. load watt & watt-hour transducer
T25-WE20	-	3ph 3w unbalanced load watt & watt-hour transducer
T25-WE30	-	3ph 4w unbalanced load watt & watt-hour transducer

General Specifications

Test voltage
4kV AC rms 1min between terminal/case
2kV AC rms 1min between
input/output/auxillary according to IEC801-4

Impulse test
5kV, 1.2/50μs according to IEC 255-4

Noise test
2.5kV, 1MHz according to IEC 255-22-1

Radio Screening
RFI degree complies with VDE0875

Working condition
-5 °C to 60 °C, 20-99% RH
non condensing

Storage condition
-20 °C to 70 °C, 20-99% RH
non condensing

Humidity
JWE operation class according to
DIN 40040

Stability
100 ppm / °C, < ± 0.2% drift per year, non cumulative

Magnetic effect
<0.05% change 1M centre 100AT,
synchronized with line frequency

Aux power effect
<0.005% per volt change

Technical Specifications

Input

Voltage
69V (3ph 4w), 120V, 240V or
415V, ± 25%

Burden
0.2VA

permissible overload
1.25 X rated voltage continuous

Current
1A, 5A

Burden
0.3VA typically

permissible overload
2 X rated cotinuous,
10 X rated - 10secs,
25 X rated - 2 secs,
50 X rated - 1 sec.

Frequency
50 or 60 Hz, ± 2hz

Output

Output ranges (analogue)
0 ... 1 mA into 0-10kΩ
0 ... 5 mA into 0-2kΩ
0 ... 10mA into 0-1kΩ
0 ... 20 mA into 0-500Ω
4 ... 20 mA into 0-500Ω

0 ... 1V, min 200Ω
0 ... 5V, min 1kΩ
0 ... 10V, min 2kΩ
1 ... 5V, min 1kΩ
2 ... 10V, min 2kΩ
(other ranges on request)

Accuracy (23 ± 5 °C)
± 0.2% RO according to IEC 688-1

Output load
current - 10V drop max.
voltage - 5mA drive max.

Output rating (digital)
Open collector type - max.30V/30mA;
reed relay type - max. 50V/40mA
export pulse optional

Ripple Factor
less than 0.5% p-p

Response time
<400ms

Output Adjustment
span & zero adjustments where applicable

Auxillary Power Supply

Standard Range
110V, 220V ± 20% 50/60Hz, <4VA

Options
self power and other AC power supplies up to 440V ac on request. DC powered models available at additional costs

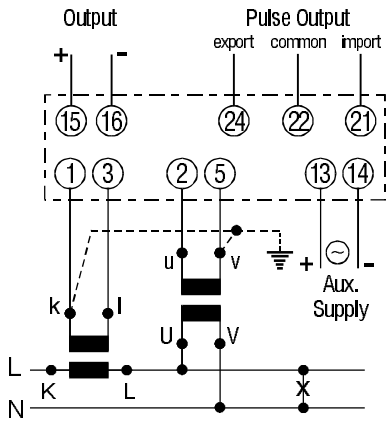
Physical Specifications

Dimensions
100W x 78H x 116D mm

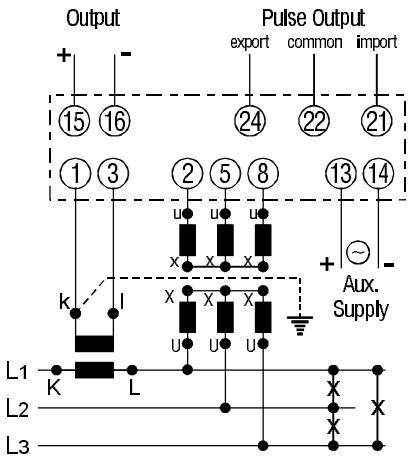
Enclosure code
IP 50 (case)
IP 30 (terminal)
according to IEC 529/DIN40050

Wiring Connections

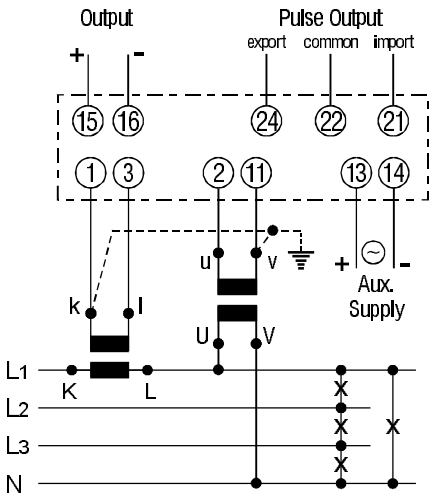
T25-WE



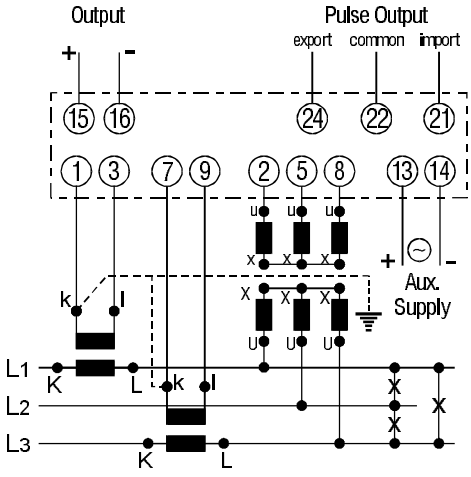
Single Phase ~ T25-WE10



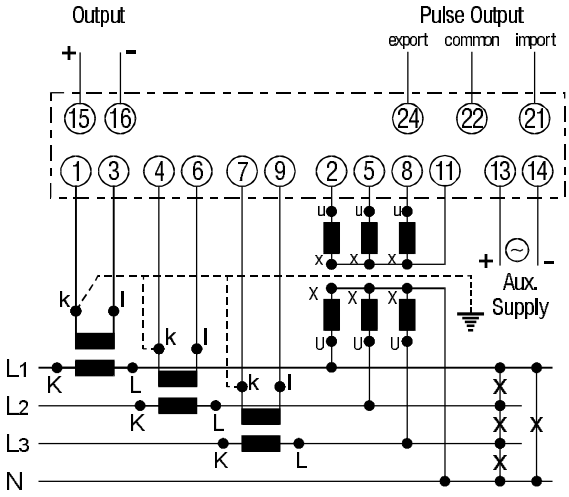
3Phase 3Wire Balanced Load
T25-WE12



3Phase 4Wire Balanced Load
T25-WE13

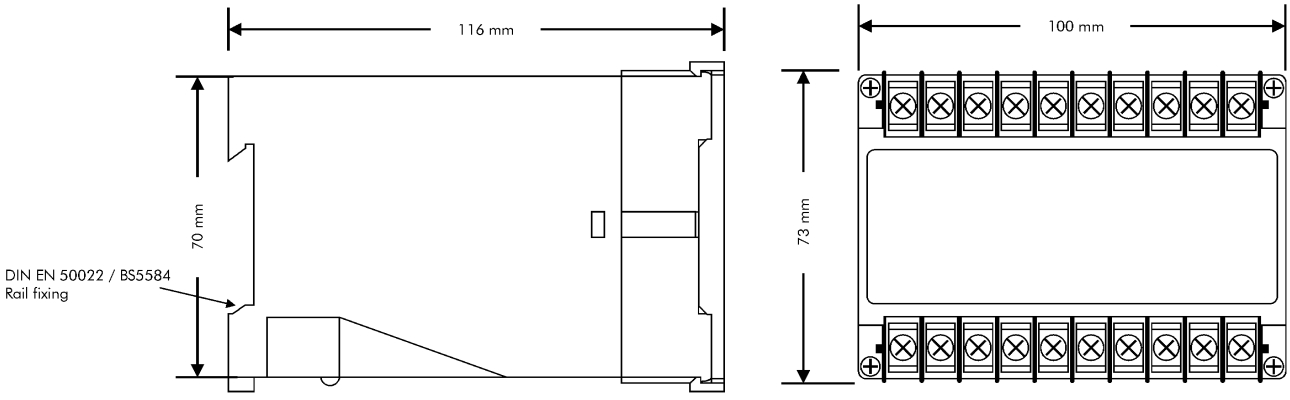


3Phase 3Wire Unbalanced Load
T25-WE20



3Phase 4Wire Unbalanced Load
T25-WE30

Dimensional Drawings



DAT 25
POWER-LINE TRANSDUCERS

T25-BE

REACTIVE POWER & ENERGY

The T25-BE are electronic transducers converting reactive power and energy in three phase balanced or unbalanced systems to simultaneously produce an analogue DC output for instantaneous power signal and a digital pulse output for cumulative energy signal.

Model

T25-BE12	-	3ph 3w bal. load var & var-hour transducer
T25-BE13	-	3ph 4w bal. load var & var-hour transducer
T25-BE20	-	3ph 3w unbalanced load var & var-hour transducer
T25-BE30	-	3ph 4w unbalanced load var & var-hour transducer

General Specifications

Test voltage
4kV AC rms 1min between terminal/case
2kV AC rms 1min between
input/output/auxillary according to IEC801-4

Impulse test
5kV, 1.2/50μs according to IEC 255-4

Noise test
2.5kV, 1MHz according to IEC 255-22-1

Radio Screening
RFI degree complies with VDE0875

Working condition
-5 °C to 60 °C, 20-99% RH
non condensing

Storage condition
-20 °C to 70 °C, 20-99% RH
non condensing

Humidity
JWE operation class according to
DIN 40040

Stability
100 ppm / °C, < ± 0.2% drift per year, non cumulative

Magnetic effect
<0.05% change 1M centre 100AT, synchronized with line frequency

Aux power effect
<0.005% per volt change

Technical Specifications

Input

Voltage
69V (3ph 4w), 120V, 240V or
415V ± 25%

Burden
0.2VA

permissible overload
1.25 X rated voltage continuous

Current
1A, 5A

Burden
0.3VA typically

permissible overload
2 X rated cotinuous,
10 X rated - 10secs,
25 X rated - 2 secs,
50 X rated - 1 sec.

Frequency
50 or 60 Hz, ± 2hz

Output

Output ranges (analogue)
0 ... 1 mA into 0-10kΩ
0 ... 5 mA into 0-2kΩ
0 ... 10mA into 0-1kΩ
0 ... 20 mA into 0-500Ω
4 ... 20 mA into 0-500Ω

0 ... 1V, min 200Ω
0 ... 5V, min 1kΩ
0 ... 10V, min 2kΩ
1 ... 5V, min 1kΩ
2 ... 10V, min 2kΩ
(other ranges on request)

Accuracy (23 ± 5 °C)
± 0.2% RO according to IEC 688-1

Output load
current - 10V drop max.
voltage - 5mA drive max.

Output rating (digital)
Open collector type - max.30V/30mA;
reed relay type - max. 50V/40mA
export pulse optional

Ripple Factor
less than 0.5% p-p

Response time
<400ms

Output Adjustment
span & zero adjustments where applicable

Auxillary Power Supply

Standard Range
110V, 220V ± 20% 50/60Hz, <4VA

Options
self power and other AC power supplies up to 440V ac on request. DC powered models available at additional costs

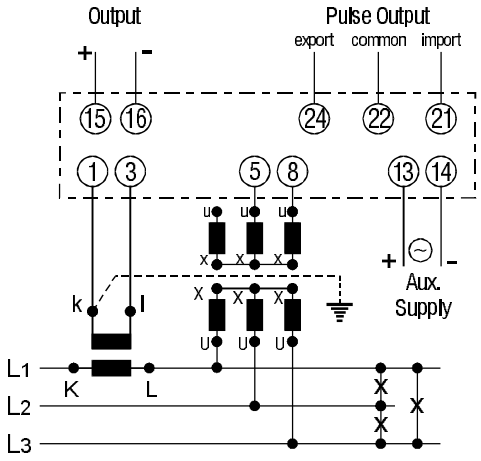
Physical Specifications

Dimensions
100W x 78H x 116D mm

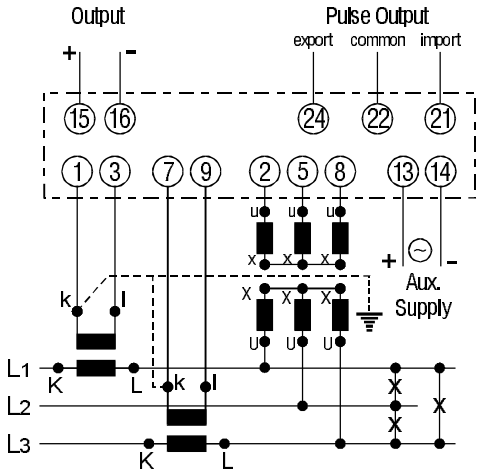
Enclosure code
IP 50 (case)
IP 30 (terminal)
according to IEC 529/DIN40050

Wiring Connections

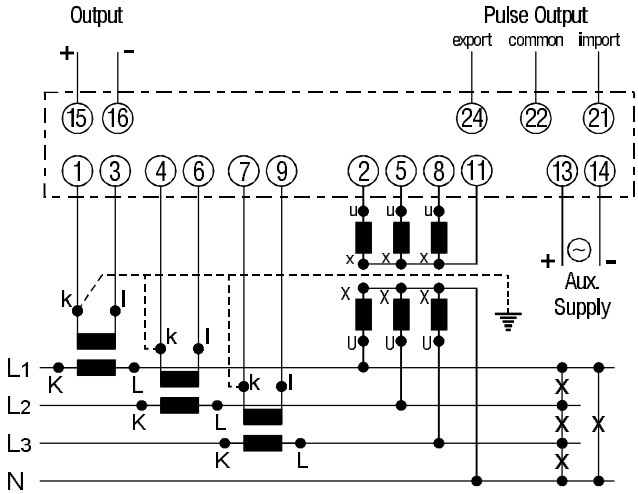
T25-BE



3Phase 3 or 4Wire Balanced Load
T25-BE12 / BE13

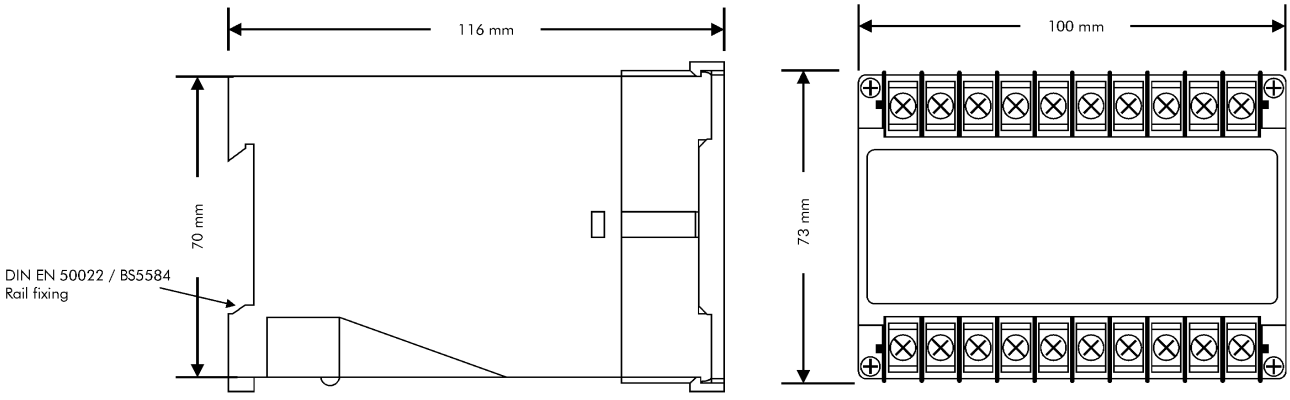


3Phase 3Wire Unbalanced Load
T25-BE20



3Phase 4Wire Unbalanced Load
T25-BE30

Dimensional Drawings



ACTIVE ENERGY

The T25-WH are electronic transducers converting active energy in single or three phase balanced or unbalanced systems to simultaneously produce a digital pulse output for cumulative energy signal.

Model

T25-WH10 - single phase watt-hour transducer
T25-WH12 - 3ph 3w bal. load watt-hour transducer
T25-WH13 - 3ph 4w bal. load watt-hour transducer
T25-WH20 - 3ph 3w unbalanced load watt-hour transducer
T25-WH30 - 3ph 4w unbalanced load watt-hour transducer

General Specifications

Test voltage
4kV AC rms 1min between terminal/case
2kV AC rms 1min between input/output/auxillary according to IEC801-4

Impulse test
5kV, 1.2/50μs according to IEC 255-4

Noise test
2.5kV, 1MHz according to IEC 255-22-1

Radio Screening
RFI degree complies with VDE0875

Working condition
-5 °C to 60 °C, 20-99% RH non condensing

Storage condition
-20 °C to 70 °C, 20-99% RH non condensing

Humidity
JWE operation class according to DIN 40040

Stability
100 ppm / °C, < ± 0.2% drift per year, non cumulative

Magnetic effect
<0.05% change 1M centre 100AT, synchronized with line frequency

Aux power effect
<0.005% per volt change

Technical Specifications

Input

Voltage
69V (3ph 4w), 120V, 240V or 415V, ± 25%

Burden
0.2VA

permissible overload
1.25 X rated voltage continuous

Current
1A, 5A

Burden
0.3VA typically

permissible overload
2 X rated cotinuous,
10 X rated - 10secs,
25 X rated - 2 secs,
50 X rated - 1 sec.

Frequency
50 or 60 Hz, ± 2hz

Output

Output rating (digital)
Open collector type - max.30V/30mA;
reed relay type - max. 50V/40mA
export pulse optional

Accuracy (23 ± 5 °C)
± 0.2% RO according to IEC 688-1

Ripple Factor
less than 0.5% p-p

Response time
<400ms

Output Adjustment
span & zero adjustments where applicable

Auxillary Power Supply

Standard Range
110V, 220V ± 20% 50/60Hz, <4VA

Options
self power and other AC power supplies up to 440V ac on request. DC powered models available at additional costs

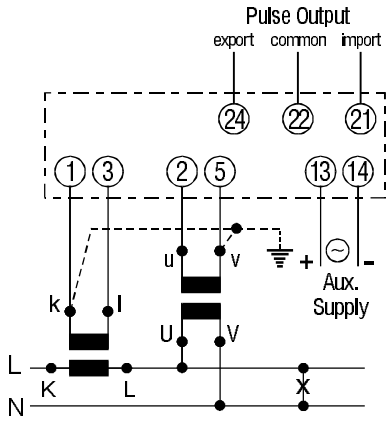
Physical Specifications

Dimensions
100W x 78H x 116D mm

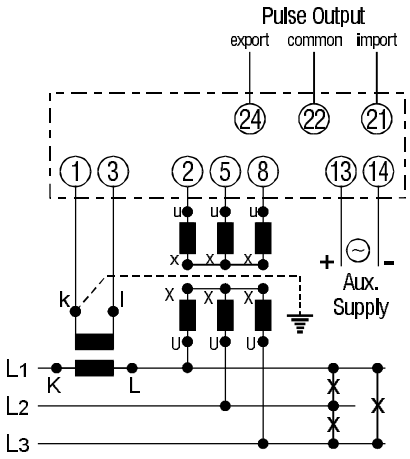
Enclosure code
IP 50 (case)
IP 30 (terminal)
according to IEC 529/DIN40050

Wiring Connections

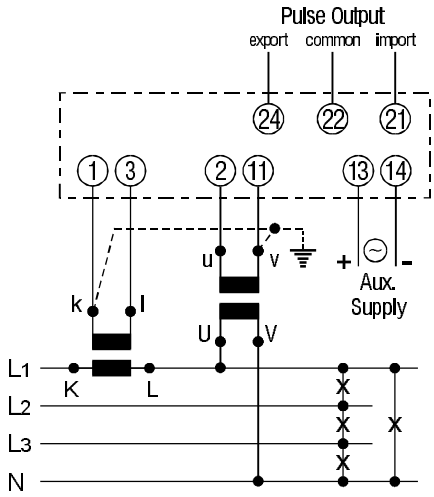
T25-WH



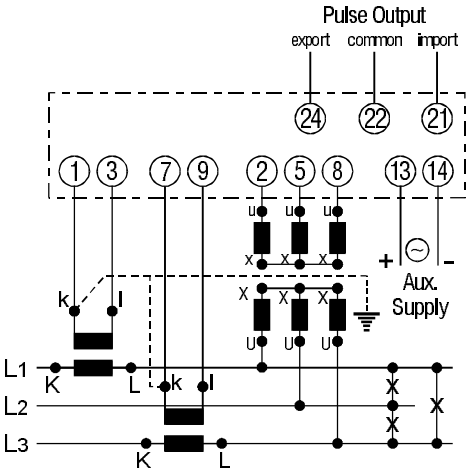
Single Phase ~ T25-WH10



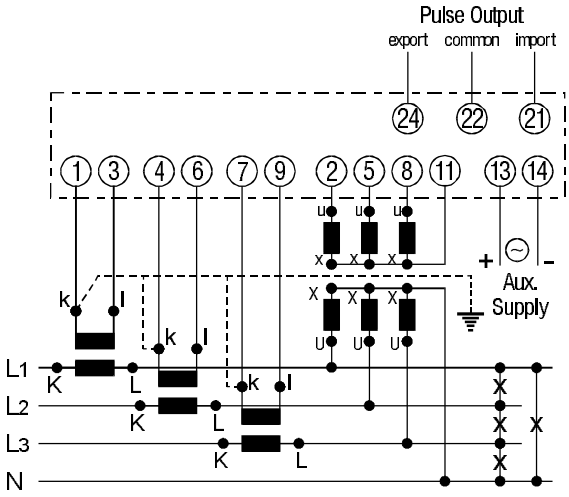
3Phase 3Wire Balanced Load
T25-WH12



3Phase 4Wire Balanced Load
T25-WH13



3Phase 3Wire Unbalanced Load
T25-WH20



3Phase 4Wire Unbalanced Load
T25-WH30

Dimensional Drawings