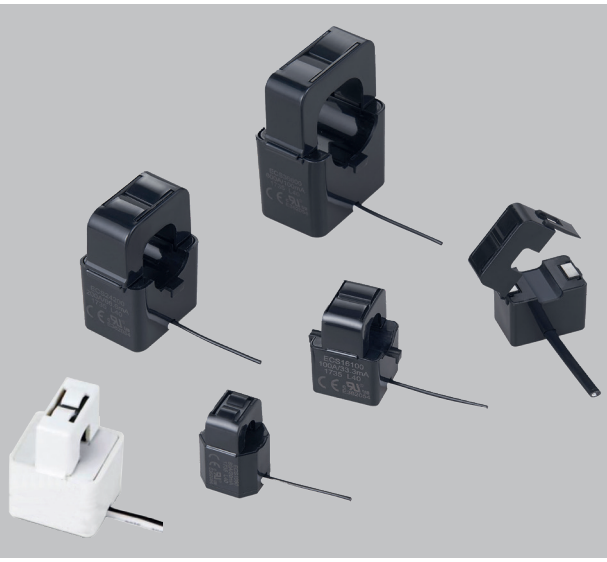


Doc. no. 2.204.028.1.g 04/2025

Split Core
Low Power Current Transformer

CT-SC-006
CT-SC-010
CT-SC-012
CT-SC-016
CT-SC-024
CT-SC-036

Data sheet

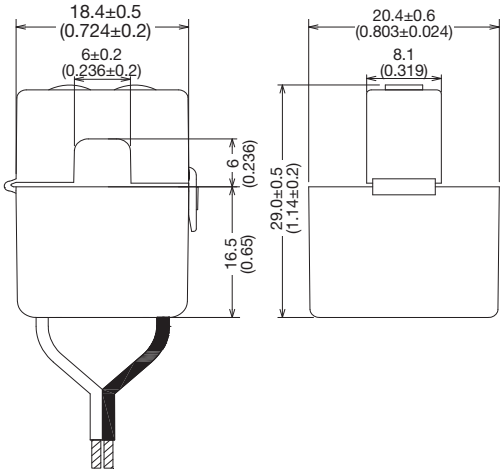
Janitza electronics GmbH
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35633 Lahnau, Germany
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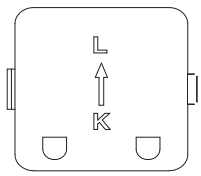
Janitza®

TECHNICAL DATA & DIMENSIONS

Type	Cable lenght	Primary current
CT-SC-006-500-20	5.0 m (196.85 in)	20 A





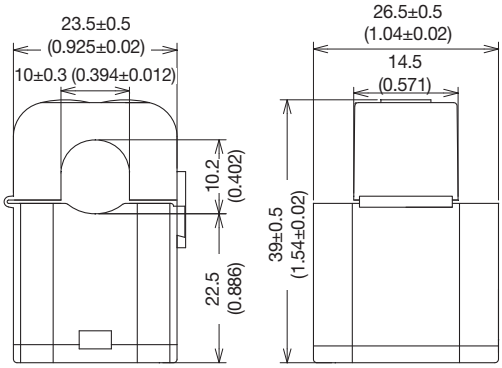


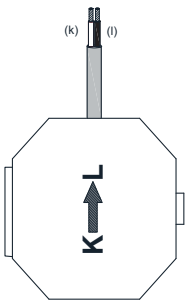
all dimensions in mm (in)

Specifications	Data
Phase error at nominal current	≤3˚
Weight appr.	31 g (0.07 lb)
Output signal	333 mV
PVC wire leads	24 AWG
Accuracy class	0.5
Frequency	50 - 60 Hz
Insulation voltage	2.5 KV/1mA /1min
Operating temperature	-40 °C to 65 °C (-40 °F to 149 °F)
Storage temperature	-45 °C to 80 °C (-49 °F to 176 °F)
Standards	ANSI C57.13, IEC61869-2, RoHS compliant
Case	Rigid housing case with UL 94 V-0 durable plastic
Insulation resistance	DC500V/100MΩ min

Type	Cable lenght	Primary current
CT-SC-010-500-5	5.0 m (196.85 in)	5 A
CT-SC-010-500-50	5.0 m (196.85 in)	50 A
CT-SC-010-50-JZ	0.25 m (9.84 in)	50 A
CT-SC-010-500-75	5.0 m (196.85 in)	75 A
CT-SC-010-75-JZ	0.25 m (9.84 in)	75 A





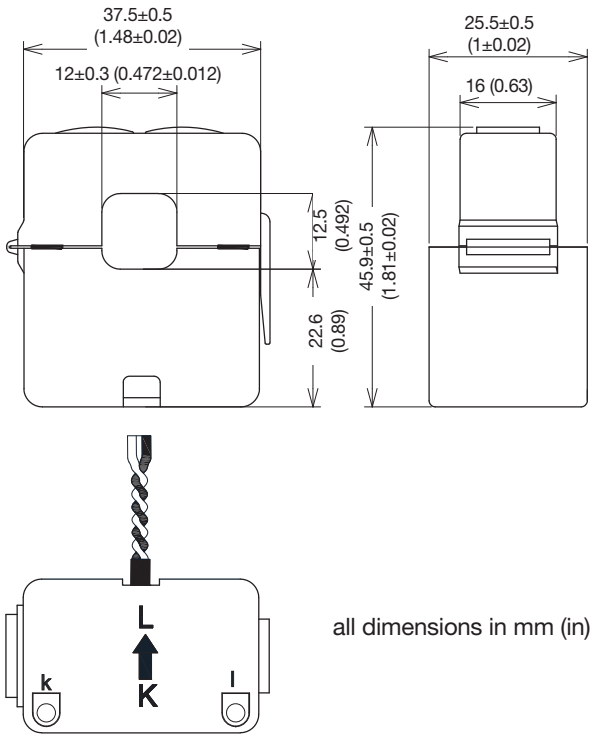


all dimensions in mm (in)

Specifications	Data 5 A	Data 50 A	Data 75 A
Phase error at nominal current	≤3°	≤1°	≤1.5°
Weight appr.	60-127 g (0.13-0.28 lb)		
Output signal	333 mV		
PVC wire leads	24 AWG		
Accuracy class	0.5		
Frequency	50 - 60 Hz		
Insulation voltage	2.5 KV/1mA/1min		
Operating temperature	-40 °C to 65 °C (-40 °F to 149 °F)		
Storage temperature	-45 °C to 80 °C (-49 °F to 176 °F)		
Standards	ANSI C57.13, IEC61869-1, RoHS compliant		
Case	Rigid housing case with UL 94 V-0 durable plastic		
Insulation resistance	DC500V/100MΩ min		

Type	Cable lenght	Primary current
CT-SC-012-500-75	5.0 m (196.85 in)	75 A
CT-SC-012-100-JZ	0.25 m (9.84 in)	100 A



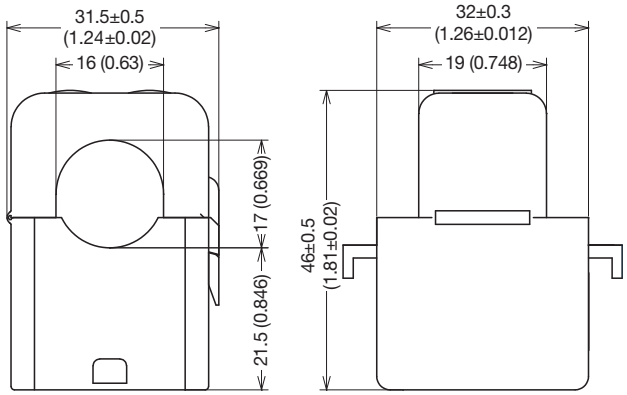


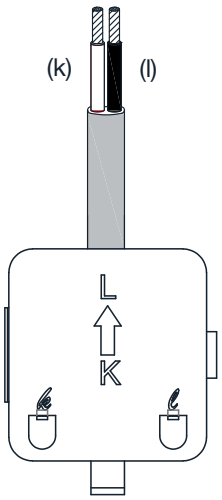
all dimensions in mm (in)

Specifications	Data
Phase error at nominal current	≤1°
Weight appr.	70-130 g (0.15-0.29 lb)
Output signal	333 mV
PVC wire leads	24 AWG
Accuracy class	0.5
Frequency	50 - 60 Hz
Insulation voltage	2500 Vac/1min
Operating temperature	-40 °C to 65 °C (-40 °F to 149 °F)
Storage temperature	-45 °C to 85 °C (-49 °F to 185 °F)
Standards	ANSI C57.13, IEC61869-2, RoHS compliant
Case	Rigid housing case with UL 94 V-0 durable plastic
Insulation resistance	DC500V/100MΩ min

Type	Cable lenght	Primary current
CT-SC-016-500-100	5.0 m (196.85 in)	100 A





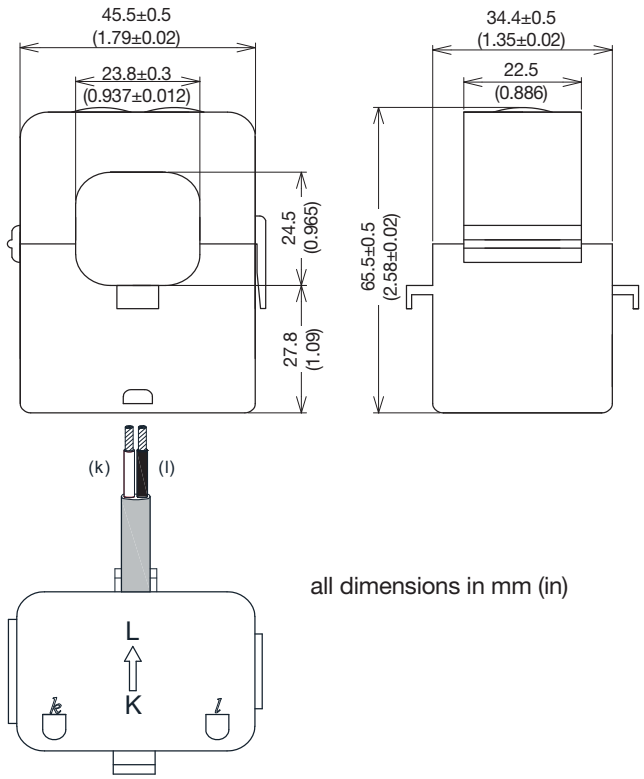


all dimensions in mm (in)

Specifications	Data
Phase error at nominal current	≤1°
Weight appr.	150 g (0.33 lb)
Output signal	333 mV
PVC wire leads	24 AWG
Accuracy class	0.5
Frequency	50 - 60 Hz
Insulation voltage	2.5 KV/1mA/1min
Operating temperature	-40 °C to 65 °C (-40 °F to 149 °F)
Storage temperature	-45 °C to 85 °C (-49 °F to 185 °F)
Standards	ANSI C57.13, IEC61869-1, RoHS compliant
Case	Rigid housing case with UL 94 V-0 durable plastic
Insulation resistance	DC500V/100MΩ min

Type	Cable lenght	Primary current
CT-SC-024-500-100	5.0 m (196.85 in)	100 A
CT-SC-024-500-200	5.0 m (196.85 in)	200 A
CT-SC-024-500-250	5.0 m (196.85 in)	250 A



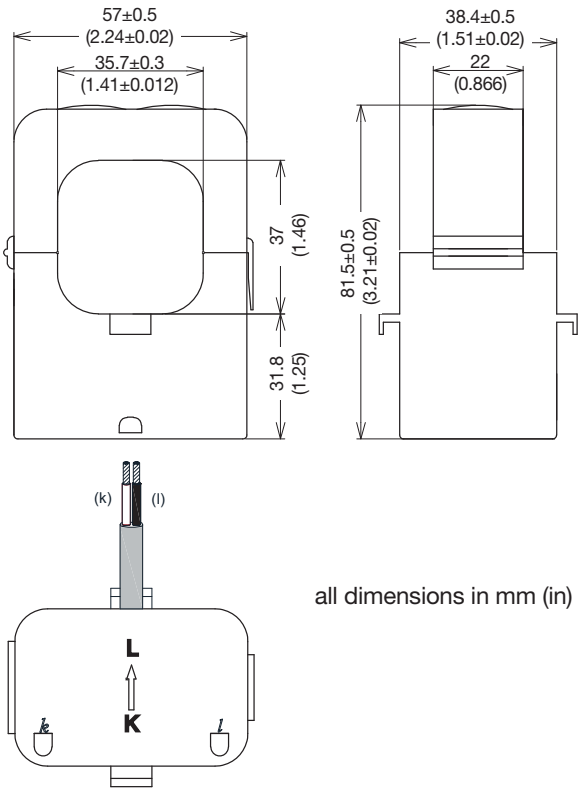


all dimensions in mm (in)

Specifications	Data
Phase error at nominal current	≤0.5°
Weight appr.	180-252 g (0.4-0.56 lb)
Output signal	333 mV
PVC wire leads	24 AWG
Accuracy class	0.5
Frequency	50 - 60 Hz
Insulation voltage	2.5 KV/1mA/1min
Operating temperature	-40 °C to 65 °C (-40 °F to 149 °F)
Storage temperature	-45 °C to 85 °C (-49 °F to 185 °F)
Standards	ANSI C57.13, IEC61869-2, RoHS compliant
Case	Rigid housing case with UL 94 V-0 durable plastic
Insulation resistance	DC500V/100MΩ min

Type	Cable lenght	Primary current
CT-SC-036-500-400	5.0 m (196.85 in)	400 A
CT-SC-036-500-600	5.0 m (196.85 in)	600 A





all dimensions in mm (in)

Specifications	Data
Phase error at nominal current	≤0.5°
Weight appr.	346-352 g (0.76-0.78 lb)
Output signal	333 mV
PVC wire leads	24 AWG
Accuracy class	0.5
Frequency	50 - 60 Hz
Insulation voltage	2500 Vac/1min
Operating temperature	-40 °C to 60 °C (-40 °F to 140 °F)
Storage temperature	-45 °C to 85 °C (-49 °F to 185 °F)
Standards	ANSI C57.13, IEC61869-1, RoHS compliant
Case	Rigid housing case with UL 94 V-0 durable plastic
Insulation resistance	DC500V/100MΩ min

OVERVIEW & ART.NO.

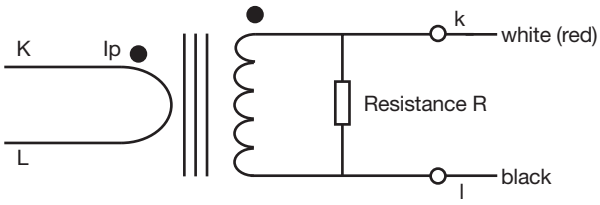
Current transformer with connectors

Type	Art. no.	Primary current	Carry out primary conductor mm (in)	Cable lenght m (in)	Accuracy class
CT-SC-010-50-JZ	1503170	50 A	Ø 10 (0.394)	0.25 (0.394)	0.5
CT-SC-010-75-JZ	1503130	75 A	Ø 10 (0.394)	0.25 (0.394)	0.5
CT-SC-012-100-JZ	1503131	100 A	Ø 12 (0.472)	0.25 (0.394)	0.5

Current transformer without connector

Type	Art. no.	Primary current	Carry out primary conductor mm (in)	Cable lenght m (in)	Accuracy class
CT-SC-010-500-5	1503333	5 A	Ø 10 (0.394)	5.0 (196.85)	0,5
CT-SC-006-500-20	1503334	20 A	Ø 6 (0.236)	5.0 (196.85)	0.5
CT-SC-010-500-50	1503335	50 A	Ø 10 (0.394)	5.0 (196.85)	0.5
CT-SC-010-500-75	1503336	75 A	Ø 10 (0.394)	5.0 (196.85)	0.5
CT-SC-012-500-75	1503337	75 A	Ø 12 (0.472)	5.0 (196.85)	0.5
CT-SC-016-500-100	1503338	100 A	Ø 16 (0.630)	5.0 (196.85)	0.5
CT-SC-024-500-100	1503339	100 A	Ø 24 (0.945)	5.0 (196.85)	0.5
CT-SC-024-500-200	1503340	200 A	Ø 24 (0.945)	5.0 (196.85)	0.5
CT-SC-024-500-250	1503341	250 A	Ø 24 (0.945)	5.0 (196.85)	0.5
CT-SC-036-500-400	1503342	400 A	Ø 36 (1.420)	5.0 (196.85)	0.5
CT-SC-036-500-600	1503343	600 A	Ø 36 (1.420)	5.0 (196.85)	0.5

CONNECTION



$$V = \frac{I \times R}{T_e}$$

$$V_L = V_{max} - \left[\frac{I \times DCR}{T_e} \right]$$

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