



Data Sheet

RISH CT DUCER

CT with Transducer (50 ... 750 AAC)



Measure



Control



Record



Analyze



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Overview

RISH CT DUCER is a very reliable, efficient and robust current transformer for measurement of AC current. It provides 4 ... 20 mA or 0 ... 20mA DC output.

It is useful in : Data Monitoring & Network Analysis

Measurement of non - sinusoidal and distorted networks

Product Features

Two products in one - single device serves functionality of both current transformer as well as transducer

Measurement of AC current for frequency 50/60Hz

Provides proportional 4 ... 20 mA or 0 ... 20 mA DC output

High output load resistance up to 1000 ohm

Two models for True RMS and Average type measurement available

Easy and safe electrical connection by means of spring clamp terminal

Dimensions Details:

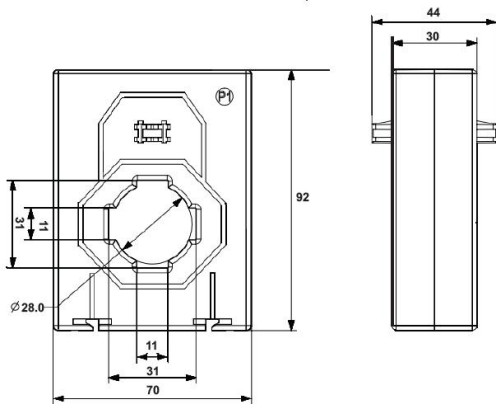


Fig. 1 Model 70 x 30 mm

Transformer width: 70 mm
Transformer height: 92 mm
Transformer depth: 44 mm
Bus bar: 30 x 10 mm
Round conductor: 28 mm

Technical Specifications:

Input Parameter

Measuring Range (In)	0...300 A AC or 0...750 A AC (Refer Model Info Table)
Input Frequency Range	50/ 60 Hz
Thermal Nominal Continuous Rated Current	1.2 x In

Output Parameter

DC Current Output	4...20mA, 0...20mA
Max. Burden Resistance at Current Output	For U_H , R_B 1000 Ω For U_L , R_B 750 Ω R_B 1000 Ω ($U_L > 24VDC$)
Current Limit Under Overload	<30mA
Voltage limit under $R=\infty$	<=25V
Response Time	<600ms
Max. Operating Voltage U_m	0.72kV, U_{eff}



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Dimensions Details:

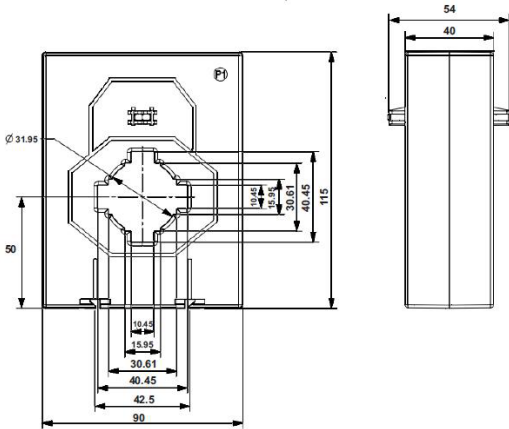


Fig. 2 Model 90 x 40 mm

Transformer width: 90 mm
Transformer height: 115 mm
Transformer depth: 58 mm
Bus bar: 40 x 10 mm
Round conductor: 31.5 mm

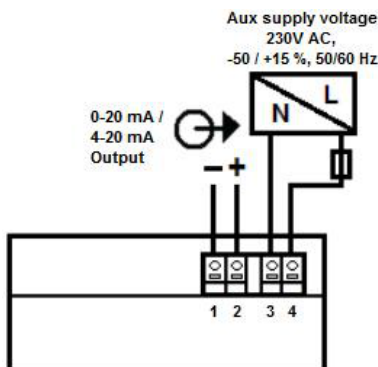
Electrical Connections for U_H



Spring clamp terminal

Connection cross sections:
0.08...2.5mm

Connection Diagram for U_H



Technical Specifications:

Auxiliary Power Supply Voltage

Auxiliary Voltage U_H or U_L
 U_H ...230 V AC, -50 / +15 %, 50/60 Hz
(external protection via fuse 250 mA / 250 V, fast)
OR
 U_L ...24 V DC, \pm 15 %
(external protection via fuse 250 mA / 250 V, fast)

Current Consumption

For U_H ,
< 15 mA
For U_L ,
< 50 mA

Accuracy:(Acc. to IEC/EN 60688)

Reference Value	Output Span
Accuracy Class	\pm 0.5%

Reference condition for accuracy

Ambient temperature	23°C
Relative humidity	45-55 % RH
Measured quantity frequency	50 Hz (Sinusoidal waveform)
Supply voltage	For U_H , 230 V, 50Hz AC supply For U_L , 24 V DC
Burden resistance at output terminals	500 Ω

Additional Error

Temperature Interference	\pm 0.3 % / 10°C
Influence of Variation	As per IEC/EN 60688 Standard
Influence of EMC (as per IEC 61236-1: 2020)	\pm 2 %

Safety

Protection Class	IP20
Installation Category	III
Pollution Degree	2
Isolation Test Voltage (IEC61010-1)	For U_H , 3kV AC, 50 Hz, 60 Seconds Auxiliary supply vs Measuring output For U_H & U_L , 6.4kV AC, 50 Hz, 60 Seconds Primary Conductor Vs Measuring Output Housing Vs Measuring output and Auxiliary supply



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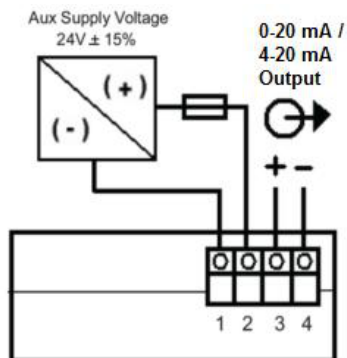
Electrical Connections for U_L



Spring clamp terminal

Connection cross sections:
0.08...2.5mm

Connection Diagram for U_L



Technical Specifications:

Environmental

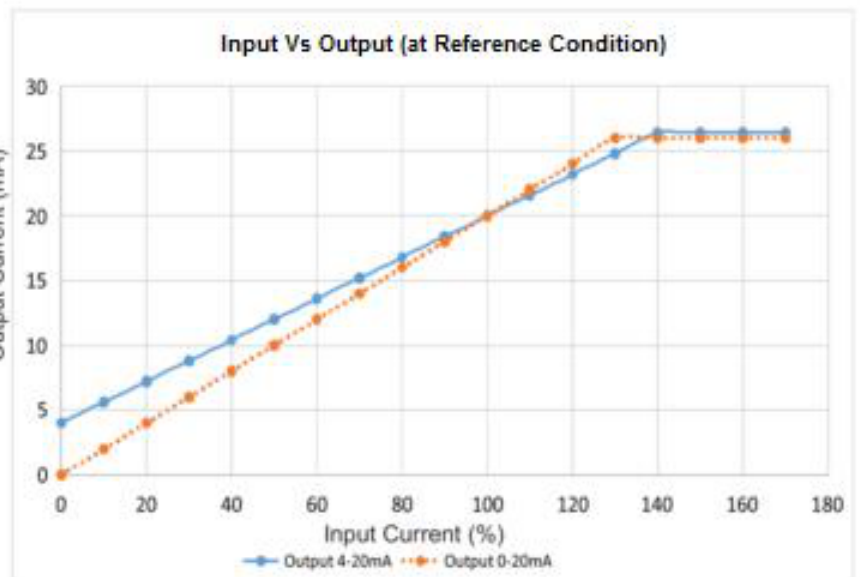
Nominal Range of use	0...23°C...70°C
Relative Humidity	0...95% RH without condensation
Storage Temperature	-40...90°C
Altitude	Up to 2000 m
Max. Temperature of Primary Conductor	100°C

Ambient Tests

Vibration	As per IEC60068-2-6 Standard
Acceleration	± 2g
Frequency range	10...150...10Hz
Rate of frequency sweep	1 octave / minute
Number of cycles	10, in each of the three axes
Shock	As per IEC 60068-2-27 Standard
Acceleration	3 x 50g 3 shocks in each in 6 directions

Applicable Technical Standards

Electromagnetic Compatibility	IEC61326-1:2020
Immunity	IEC61000-4-2
	IEC61000-4-3
	IEC61000-4-4
	IEC61000-4-6
	IEC61000-4-8
Emission	CISPR11
Safety	IEC61010-1,2010
Performance	IEC60688,2012



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Rish CT Ducer (CT with Transducer) options

Type	Primary Current (AC)	Current Output (mA DC)
RISH CT Ducer 70 x 30mm* (TRMS or Average)	50	4...20mA or 0...20mA
	100	
	150	
	200	
	250	
	300	
RISH CT Ducer 90 x 40mm (TRMS or Average)	50	4...20mA or 0...20mA
	100	
	150	
	200	
	250	
	300	
	400	
	500	
	600	
	750	

* Available with lower Aux (U_L) Power supply only



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Ordering Information

CT with Transducer	CCT1-	XX	X	XX	X	000000
Product Type (Size)	70 x 30mm AVG	1A				
	90 x 40mm AVG	2A				
	70 x 30mm TRMS	1T				
	90 x 40mm TRMS	2T				
Primary Current Ratio	50A		A			
	100A		B			
	150A		C			
	200A		D			
	250A		E			
	300A		F			
	400A*		G			
	500A*		H			
	600A*		I			
	750A*		O			
Output Range	0-20mA			65		
	4-20mA			75		
Auxiliary Supply	230V AC				H	
	24V DC				L	

*Available in Size 90 x 40 mm only

**For any non-standard range requirements, please contact the HO.

Ordering Code Example : CCT1-2TO75H000000

RISH CT DUCER, Size 90X40 TRMS, Primary Current 750A, Output 4-20MA, Auxiliary Supply 230V AC



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Specifications may change without prior notice



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