

DATA SHEET

Current Transformer 30 x 10, 50 – 600A



SCHRACK-INFO

- Current transformers for low-voltage network
- Single-phase current transformer
- Passing cable/ bus bar primary
- Primary current 50...600A
- Secondary current 5A

TECHNICAL DATA:

REFERENCE STANDARDS

EN60044-1

SPECIFICATIONS

Rated primary current I_{pr} :	50A, 60A, 100A, 150A, 200A, 250A, 300A, 400A, 500A, 600A
Rated frequency:	50Hz
Working frequency:	47 - 63Hz
Rated continuous thermal current according to EN60044-1 (I_{cth})	
Rated short-time thermal current I_{th} :	$< 60I_{pr}$
Rated dynamic current I_{dyn} :	$2,5I_{th}$
Instrument security factor (FS):	≤ 5
Rated secondary current I_{sr} :	5A
Rated burden:	1,5...10VA (see table)
Accuracy class:	0,5 - 1 - 3 (see table)
Max. power dissipation for switchboard thermal calculation:	$\leq 7W$ at I_{cth}
The allowed max cable or busbar temp is:	125°C

RATED BURDEN

Type:	Accuracy class		
	Class 0,5	Class 1	Class 3
50/5A	-	-	1,5 VA
60/5A	-	-	2,5 VA
100/5A	1,5 VA	3 VA	-
150/5A	3 VA	5 VA	-
200/5A	4 VA	7 VA	-
250/5A	6 VA	8 VA	-
300/5A	8 VA	10 VA	-
400/5A	10 VA	12 VA	-
500/5A	12 VA	15 VA	-
600/5A	15 VA	20 VA	-

INSULATION REQUIREMENTS

Dry transformer, air insulation

Highest voltage for equipment U_m :

0,72kV r.m.s.

Rated insulation level:

3kV r.m.s. 50Hz/1min

Class of insulation (EN60044-1):

B

ENVIRONMENTAL CONDITIONS

Non-exposed installation (EN60044-1)

Reference temperature:

23°C ± 1°C

Nominal temperature range:

- 25...50°C

Daily mean temperature:

≤ 30°C

Limit temperature range for storage:

- 40...85°C

Relative humidity:

≤ 85% (Suitable for tropical climates)

LIMITS OF CURRENTS ERROR AND PHASE DISPLACEMENT (EN60044-1)

Ac- curacy class	± Percentage current (ratio) error at percentage of rated current shown below				± Phase displacement at percentage of rated current shown below							
					Minutes				Centiradians			
	5%In	20%In	100%In	120%In	5%In	20%In	100%In	120%In	5%In	20%In	100%In	120%In
0,5	1,5	0,75	0,5	0,5	90	45	30	30	2,7	1,35	0,9	0,9
1	3	1,5	1	1	180	90	60	60	5,4	2,7	1,8	1,8
3				3								

The current error and phase displacement at rated frequency shall not exceed the values given in table when the secondary burden is any value from 25% to 100% of the rated burden.

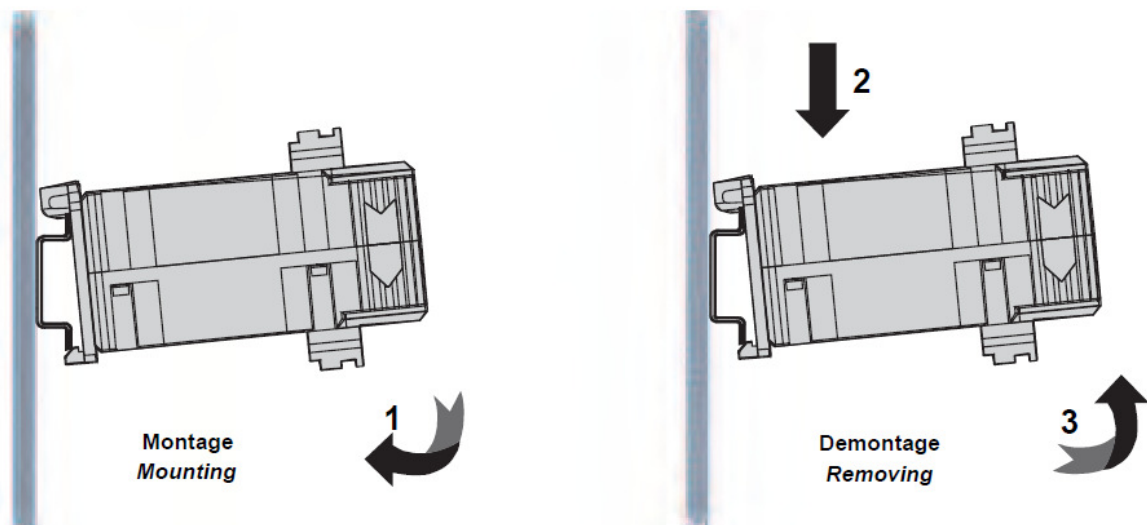
HOUSING

Housing material:	self extinguishing polycarbonate
Protection degree (EN60529):	IP20
Mounting:	snap-on 35mm rail, screw type for wall mounting
Rail type:	top hat TH35-15 (EN60715)
Weight:	260 grams

CONNECTIONS

Primary winding:	passing cable
Max. tightening torque for passing primary bar fixing screws:	0,2Nm
Secondary winding:	screw terminals
Connections label:	primary winding P1(K) – P2(L) secondary winding s1(k) – s2(l)

FIXING ON DIN RAIL EN50022



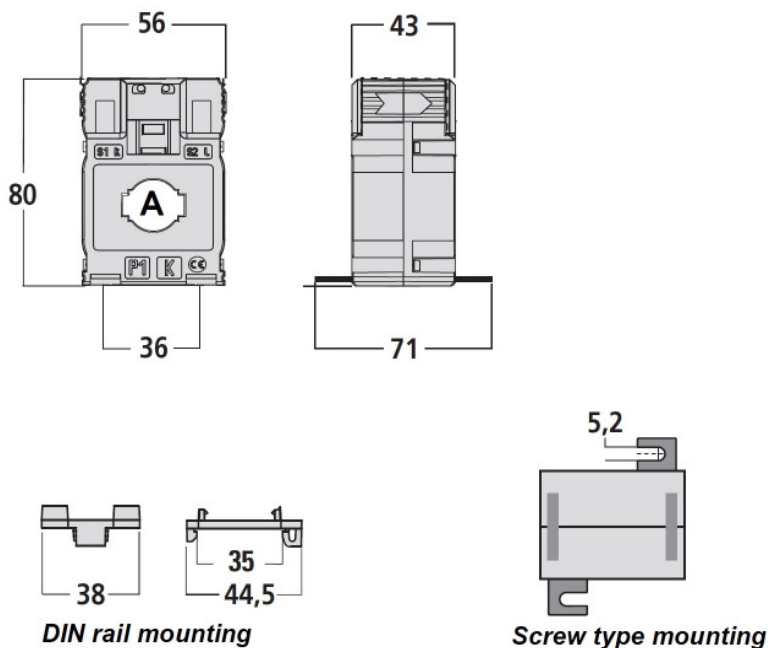
ATTENTION:

Working time guaranteed with secondary winding open for 1 minute Current transformers should not be operated with the secondary winding open-circuited because of the potentially dangerous over-voltages and overheating which can occur (EN 60044-1/A2).

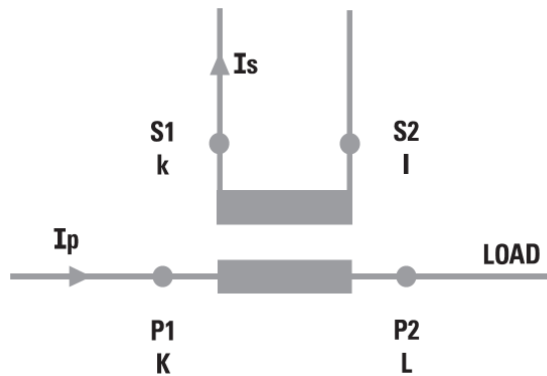
To obviate this problem, it is possible to use accessory to be directly connected with the transformer secondary winding, which is able to continuously detect the terminal voltage and, if the voltage reaches the threshold value (18V) owing to a connection breakdown or disconnection of the devices, automatically closes again the circuit.

When the normal working conditions are restored, it automatically disconnects. Continuously connected with the secondary winding of the transformer to protect, it doesn't affect at all the current transformer features or performances. It doesn't need any external supply (self-supplied).

DIMENSIONS:



■ WIRING DIAGRAM:



■ ARTICLES:

Current Transformer 50/5A 30X10	MG954005-A
Current Transformer 60/5A 30X10	MG954006-A
Current Transformer 100/5A 30X10	MG954010-A
Current Transformer 150/5A 30X10	MG954015-A
Current Transformer 200/5A 30X10	MG954020-A
Current Transformer 250/5A 30X10	MG954025-A
Current Transformer 300/5A 30X10	MG954030-A
Current Transformer 400/5A 30X10	MG954040-A
Current Transformer 500/5A 30X10	MG954050-A
Current Transformer 600/5A 30X10	MG954060-A