



Time relay  
TMST  
1

Product designation  
Product type designation  
Number of DIN modules

#### General characteristics

Description

Time relay for  
star-delta starting,  
multiscale

Function

Star-delta

#### Supply circuit

Rated auxiliary supply voltage  $U_s$

380...440VAC

Rated auxiliary supply voltage  $U_s$   
AC

min	VAC	380
Max	VAC	440

Rated frequency

Hz 50/60

Operating voltage range

0.85...1.1  $U_s$

Maximum power consumption / dissipation

W 19VA/1.7W  
(380...440VAC)

Immunity time for microbreakings

ms  $\leq 30$

#### Timing circuit

Time setting range

0.1s...10min

Setting accuracy

%  $\leq \pm 9$

Repeat accuracy

%  $\leq \pm 0.5$

Influence of voltage variation

%  $\leq \pm 0.1$

Influence of temperature variation

%  $\leq \pm 0.2$

Resetting time

During timing	ms	$\geq 100$
Elapsed time	ms	$\geq 50$

#### Relay outputs

Number of relays

Nr. 1

Contact arrangement

1 with 2 N/O with  
common pole

Maximum switching voltage

VAC 250

IEC Conventional free air thermal current  $I_{th}$

A 8

UL/CSA and IEC/EN 60947-5-1 designation

B300

#### Insulation (input-output)

Rated insulation voltage  $U_i$

V 250

Rated impulse withstand voltage  $U_{imp}$

kV 4

Power frequency withstand voltage

kV 2

#### Connections

Terminals type

Screw

Tightening torque (Max)

Tightening torque Max	Nm	0.8
Tightening torque Max	Ibin	7 / 7...9 UL

Conductor section

AWG/Kcmil

min	24...12
max	12...18

IEC

min	mm <sup>2</sup>	0.2
max	mm <sup>2</sup>	4

## Operations

Mechanical life	cycles	30000000
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Electrical life (with rated load)	cycles	100000
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## Ambient conditions

Temperature

Operating temperature

min	°C	-20
max	°C	+60

Storage temperature

min	°C	-30
max	°C	+80

Relative humidity	%	<90%
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Maximum Pollution degree	2
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Overvoltage category	III
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## Housing

Execution (n° of modules)	1
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Material	Self-extinguishing polyamide
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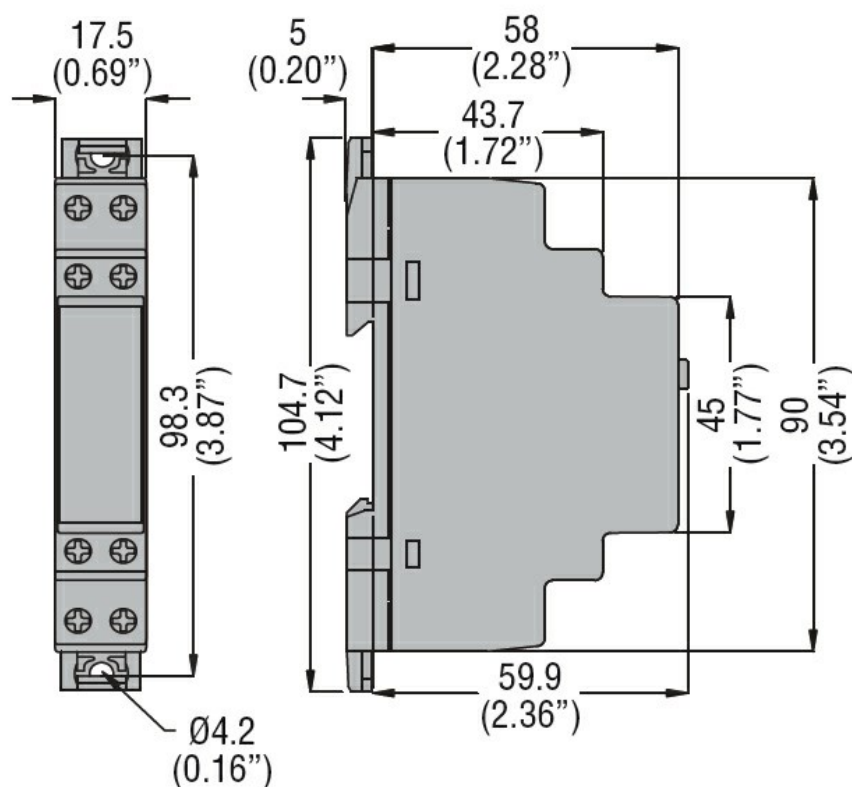
Mounting	DIN rail 35 mm
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Degree of protection	IP40 on front, IP20 terminals
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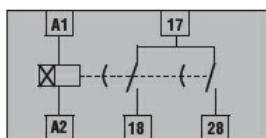
Dimensions (W x H x D)	mm	17.5 x 104.7 x 64.9
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Weight	g	90
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## Dimensions



## Wiring diagrams



## Certifications and compliance

### Compliance

CSA C22.2 n°14

IEC/EN 61812-1

UL508

### Certificates

CCC

cULus

EAC

## ETIM classification

ETIM 8.0

EC001439 -  
Timer relay