

TFI-SERIES TFIS 12-240VUC 1CO M7C

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Product image



Timing relays are used in automation engineering in order to compensate for malfunctions caused by high clock rates.

Short pulses are extended and hence are reliably identified by downstream control components.

Various timing functions such as make and break delays, clock generator and star/delta switchover are available to users.

General ordering data

Type	TFIS 12-240VUC 1CO M7C
Order No.	2697250000
Version	TFI-SERIES, Multifunction timing relay, with separate control input, Number of contacts: 1, CO contact, AgNi, Rated control voltage: 12...240 V UC -10 % / +10 %, Continuous current: 8 A, Screw connection
GTIN (EAN)	4050118705263
Qty.	1 pc(s).

Creation date September 17, 2020 11:15:10 PM CEST

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Technical data**Dimensions and weights**

Width	17.5 mm	Width (inches)	0.689 inch
Height	87 mm	Height (inches)	3.425 inch
Depth	60 mm	Depth (inches)	2.362 inch
Net weight	72 g		

Temperatures

Humidity	15...85 % rel. humidity, no condensation	Operating temperature, max.	55 °C
Operating temperature, min.	-25 °C	Storage temperature, max.	70 °C
Storage temperature, min.	-25 °C	Operating temperature	-25 °C...55 °C
Storage temperature	-25 °C...70 °C		

Input

Rated control voltage	12...240 V UC - 10 % / + 10 %	Power rating	4 VA, 1.5 W
Status indicator	LED green (U/t): flashes when time runs, lights permanently with supply voltage applied, LED yellow (R): relay closed	Repeat accuracy	< 0.5 % or ±5 ms
Setting tolerance	5 %	Basic accuracy	± 1 % (of scale-end value)
Min. pulse duration		Time ranges	0.05 s - 1 s, 0.5 s - 10 s, 3 s - 60 s, 30 s - 10 min, 3 min - 1 h, 30 min - 10 h, 5 h - 100 h
Timing function	100 ms Blinker, On delay, On-delay with control input, Off-delay with control input, Single shot falling edge with control input, Single shot rising edge with control input, Single shot rising edge supply voltage controlled	Max. reset time after voltage interruption	100 ms

Output

Rated switching voltage	250 V AC	Max. switching voltage, AC	250 V
Max. switching voltage, DC	30 V	Continuous current	8 A
AC switching capacity (resistive), max.	2000 VA	DC switching capacity (resistive), max.	240 W
Min. switching power	10 mA @ 12 V, 100 mA @ 5 V		

Contact data

Contact type	1 CO contact (AgNi)	Electrical service life, DC coil	2x10 ⁵ switching cycles (1000 VA ohm load)
Mechanical service life	20 x 10 ⁶ switching cycles		

General data

Version	with separate control input	Rail	TS 35
Test button	No	Mechanical switch position indicator	No
Colour	black	Resistance to vibration EN 61812-1	10 Hz...60 Hz: 0.15 mm, 60 Hz...150 Hz: 2 g

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Technical data
Insulation coordination

Rated voltage	300 V	Surge voltage category	III
Pollution severity	2	Protection degree	IP20
Dielectric strength, Input/Output	1.6 kV	Creepage and clearance distance input – output	≥ 3 mm
Impulse withstand voltage	4 kV		

Further details of approvals / standards

Certificate no. (cULus)	E360862
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Connection data

Wire connection method	Screw connection	Stripping length, rated connection	8 mm
Tightening torque, max.	1 Nm	Clamping range, rated connection	2.5 mm ²
Clamping range, min.	0.5 mm ²	Clamping range, max.	4 mm ²
Wire connection cross section AWG, min.	AWG 20	Wire connection cross section AWG, max.	AWG 12
Wire cross-section, solid, min.	0.5 mm ²	Wire cross-section, solid, max.	4 mm ²
Wire connection cross-section, finely stranded, min.	0.5 mm ²	Wire connection cross section, finely stranded, max.	4 mm ²
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	0.5 mm ²	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	2.5 mm ²
Conductor cross-section, flexible, AEH (DIN 46228-1), min.	0.5 mm ²	Conductor cross-section, flexible, AEH (DIN 46228-1), max.	2.5 mm ²
Wire connection cross section, finely stranded, two clampable wires, min.	0.5 mm ²	Wire cross-section, finely stranded, two clampable wires, max.	2.5 mm ²
Blade size	size PZ1		

Classifications

ETIM 6.0	EC001439	ETIM 7.0	EC001439
eClass 9.0	27-37-16-05	eClass 9.1	27-37-16-05
eClass 10.0	27-37-16-05		

Approvals

Approvals



ROHS Conform

Downloads

Approval/Certificate/Document of Conformity	EU Konformitätserklärung / EU Declaration of Conformity
Engineering Data	STEP
User Documentation	Beschreibung der Zeitfunktionen - Deutsch Declaration of time functions - English Beipackzettel / Package Insert – multilingual

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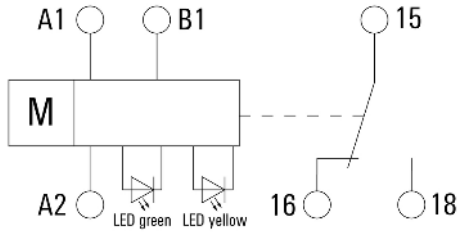
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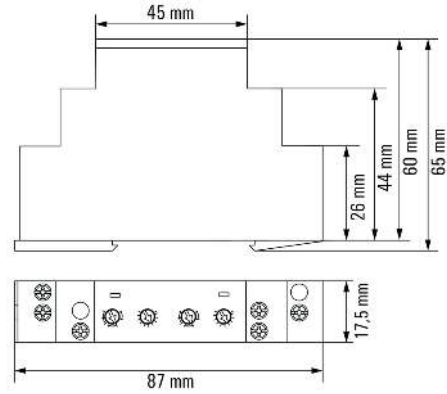
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Drawings

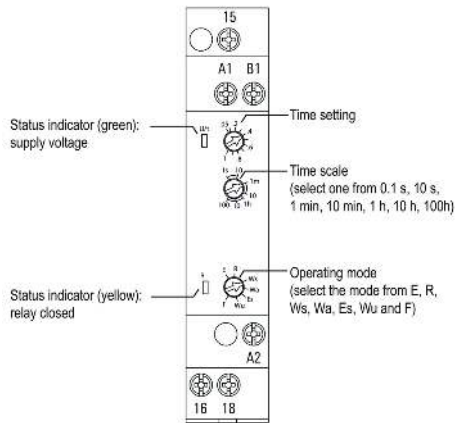
Wiring diagram



Dimensional drawing



Miscellaneous



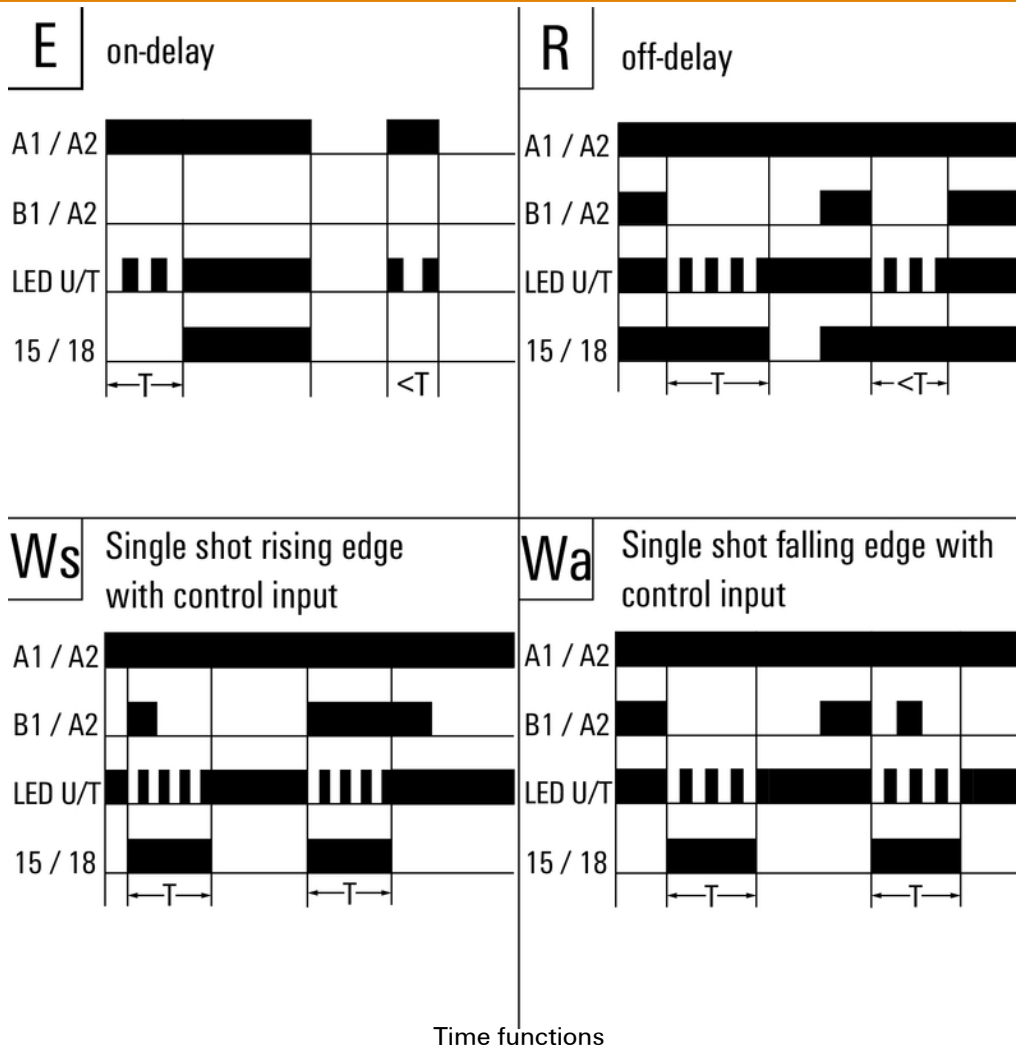
Detailed drawing

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Graph

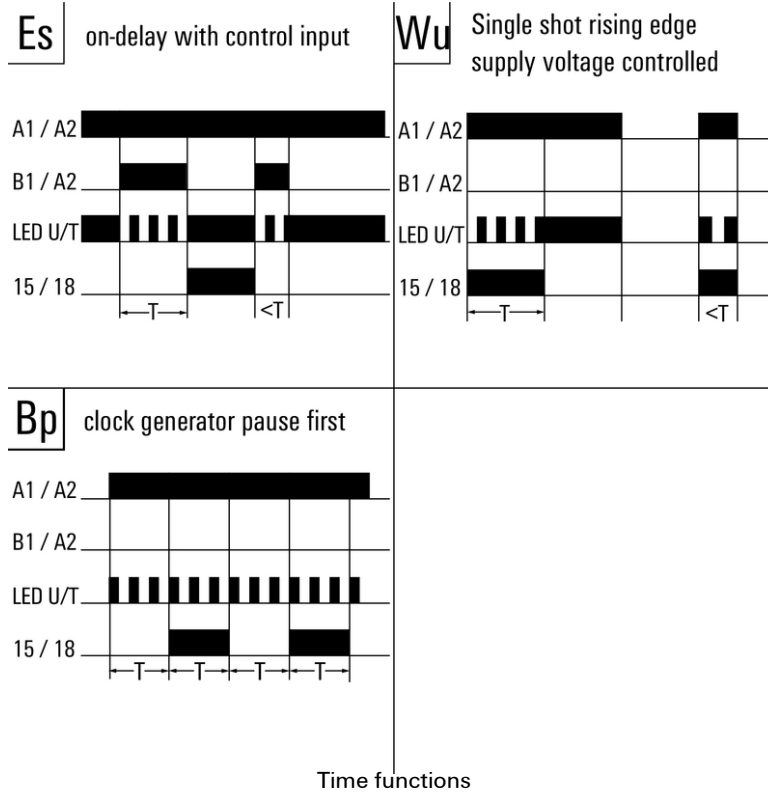


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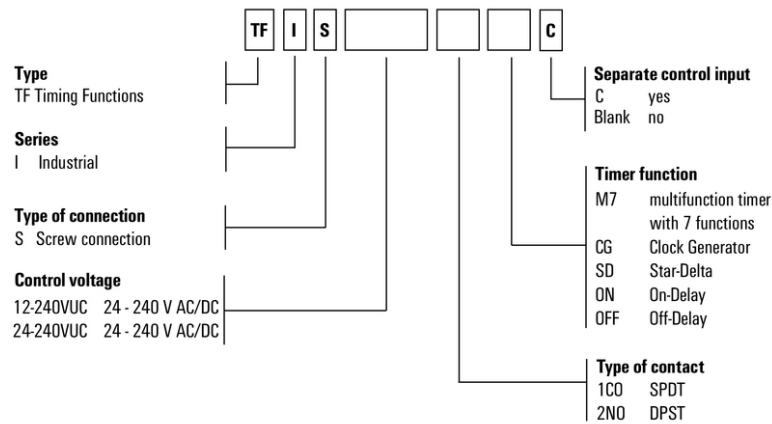
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Graph



Miscellaneous



Type codes