

**12 CO Switching ,Value, Time-Send 7F0401**
**Application program usage**

Product family: Timer  
 Product type: REG-Devices  
 Manufacturer: Siemens

Name: Time Switch 4-Channel REG 372  
 order-no.: 5WG1 372-5EY01

Name: Time Switch 4-Channel REG 372/02  
 order-no.: 5WG1 372-5EY02

**Functional description**

For any of the 4 channels these telegram types may be selected:

- switching telegram (1-Bit)
- Positive drive telegram (2-Bit)
- Dimming or value telegram (8-Bit)

Cyclical sending may be selected for each channel. The cycle interval is the same for all four channels.

Date and Time can be sent every minute, every hour, every day or only on request. When time is requested via the 1-bit object Time Request the value of the time request telegram is unimportant. Date and time are always sent both.

**Note**

Communication between bus coupler and clock (and thus execution of the application program) occurs only if the clock is in automatic mode (display shows **Auto**). Any clock actions that occurred while the clock was not in automatic mode are executed when automatic mode resumes.

**Communication objects**

Phys.Addr.		Program	Order number	
no.	Object name	Function	Type	
01.01.004	12 CO Switching,Value,Time-Send 7F0401		5WG1 372-5EY0_	
0	Channel 1	On / Off	1 Bit	
1	Channel 2	8-bit Value (EIS 6)	1 Byte	
2	Channel 3	Positive drive (EIS 8)	2 Bit	
3	Channel 4	On / Off	1 Bit	
4	Time (sending)	Value (EIS 3)	3 Byte	
5	Date	Value (EIS 4)	3 Byte	
6	Time request	Trigger sending	1 Bit	

**Note**

Your screen presentation may vary from these typical snap shots.

Obj	Object name	Function	Type	Flag
0	Channel 1	On / Off	1 Bit	CT
		8-bit Value (EIS 6)	1 Byte	
		Positive drive (EIS 8)	2 Bit	
1	Channel 2	...	...	CT
2	Channel 3	...	...	CT
3	Channel 4	...	...	CT
<b>On / Off:</b> Send a switching telegram when the clock channel switches.				
8-bit Value (EIS 6): Send an 8-bit value (dimming, set value), when the clock channel switches.				
Positive drive (EIS 8): Send an 8-bit value (dimming, set value), when the clock channel switches.				
4	Time (sending)	Value (EIS 3)	3 Byte	CRT
Send a time (EIS 3) telegram with the elements day of week and time as configured (every minute, every hour, every day or on request).				
5	Date	Value (EIS 4)	3 Byte	CRT
Send a date telegram (EIS 4) as configured (every minute, every hour, every day or on request).				
6	Time request	Trigger sending	1 Bit	CWT
Receive a time request telegram. After receiving the time request telegram send time and date onto the bus.				

Maximum number of group addresses: 10  
 Maximum number of assignments: 10

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**Parameter**

**General**

General	Channel 1	Channel 2	Channel 3	Channel 4
Interval for cyclical sending		10 minutes		
Sending of date and time		every day		

Parameter	Settings
<b>Interval for cyclical sending</b>	ca. 3, 5, <b>10</b> , 15, 20, 30, 45, 60 minutes
Setting of the time interval with which the message is sent repeatedly on the bus. This parameter is applied to all channels where the sending behaviour is set to „cyclical sending“.	
<b>Sending of date and time</b>	only on request every minute every hour <b>every day</b>
Setting of the send condition for sending the date and time telegram onto the bus. To regularly synchronize date and time of the time switches REG 372 and REG 372/02 with the application program „Switch, Val, Temp set, Time sync 7F0501“, the settings „every hour“ (recommended) or „every minute“ must be selected.	

**Switch Channel 1 (2 – 4)**

General	Channel 1	Channel 2	Channel 3	Channel 4
Function		switch		
Behaviour if clock switches		clock ON -> ON / clock OFF -> OFF		
Behaviour of sending		no cyclical sending		

Function and parameters of channels 1 - 4 are identical and described only once.

Parameter	Settings
<b>Function</b>	<b>Switch</b> 8-bit Value positive drive
Select if a switch (1 bit) , value (8 bit) or positive drive (2 bit) telegram shall be sent via this clock channel.	
<b>Behaviour if clock switches</b>	<b>clock ON &gt; ON /</b> <b>clock OFF &gt; OFF</b> Clock ON > OFF / clock OFF > ON
This parameter appears if a switching telegram shall be sent. Select if an ON (OFF) telegram shall be sent when the clock channel switches ON (OFF), or if an OFF (ON) telegram shall be sent when the clock channel switches OFF (ON).	
<b>Behaviour of sending</b>	<b>no cyclical sending</b> cyclical sending
Select if the telegram shall be sent once only or cyclically.	

**8-bit Value Channel 1 (2 – 4)**

General	Channel 1	Channel 2	Channel 3	Channel 4
Function		8-bit value		
Value if clock switches OFF		50		
Value if clock switches ON		200		
Behaviour of sending		no cyclical sending		

Function and parameters of channels 1 - 4 are identical and described only once.

Parameter	Settings
<b>Function</b>	<b>Switch</b> 8-bit Value positive drive
Select if a switch (1 bit) , value (8 bit) or positive drive (2 bit) telegram shall be sent via this clock channel.	
<b>Value if clock switches OFF</b>	<b>50</b>
This parameter appears if a 8-bit value telegram shall be sent. Setting of a value between 0 and 255 to be sent when the clock channel switches OFF.	
<b>Value if clock switches ON</b>	<b>200</b>
This parameter appears if a 8-bit value telegram shall be sent. Setting of a value between 0 and 255 to be sent when the clock channel switches ON.	
<b>Behaviour of sending</b>	<b>no cyclical sending</b> cyclical sending
Select if the telegram shall be sent once only or cyclically.	

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### Positive drive Channel 1 (2 – 4)

General	Channel 1	Channel 2	Channel 3	Channel 4
Function			positive drive	
Value if clock switches OFF			disable positive drive	
Value if clock switches ON			switch ON with positive drive	
Behavior of sending			no cyclical sending	

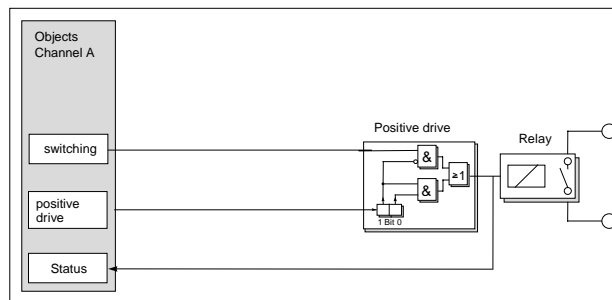
Function and parameters of channels 1 - 4 are identical and described only once.

Parameter	Settings
<b>Function</b>	<b>Switch</b> 8-bit Value positive drive
Select if a switch (1 bit) , value (8 bit) or positive drive (2 bit) telegram shall be sent via this clock channel.	
<b>Value if clock switches OFF</b>	<b>disable positive drive</b> switch OFF with positive drive switch ON with positive drive
This parameter appears if a positive drive telegram shall be sent. Setting which positive drive value shall be sent when the clock channel switches OFF.	
<b>Value if clock switches ON</b>	disable positive drive switch OFF with positive drive <b>switch ON with positive drive</b>
This parameter appears if a positive drive telegram shall be sent. Setting which positive drive value shall be sent when the clock channel switches ON.	
<b>Behaviour of sending</b>	<b>no cyclical sending</b> cyclical sending
Select if the telegram shall be sent once only or cyclically.	

### Positive drive

Actuators with positive drive input allow for overriding of outputs via central control commands.  
E.g. when in energy savings or night operation mode switching on of selected lights or loads can be blocked. In the case of night operation mode a switch OFF positive drive telegram may be sent at 20h00 and at 06h00 a switch ON positive drive telegram.

For explanation of positive drive assume a switch actuator with two input objects. The input object switching controls the output dependent on the status of the input positive drive.



The positive drive object is a 2-bit object. Bit 1 determines, whether positive drive is "active" (= 1) or „passive“ (= 0).

If Bit 1 has the value 0, then positive drive is set to be „passive“ and the switching input value is directly available at the positive drive output. At the same time this value is loaded into Bit 0 of the positive drive object. Thus Bit 0 of the positive drive object always contains the status.

If Bit 1 of the positive drive object has the value 1, then the positive drive is set to be "active" and the switching input value is irrelevant for the output value. In this case Bit 0 of the positive drive object determines the output of the positive drive. If positive drive is not activated then the switching input value is directly available at the output of the positive drive.

Bit 1	Bit 0	Function
0	0	Positive drive is not activated
0	1	Positive drive is not activated
1	0	Off with positive drive object value
1	1	On with positive drive object value

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**Review**

If the time or the date is modified (via keyboard entry, via radio or bus synchronization), a review takes place in the clock. That means in order to avoid switching times being skipped and thus not executed, the clock calculates its switching status again. If the clock detects a modification of the switching conditions, then these are transmitted. However, with this principle favourable procedure the following points are to be considered:

- As manual switchings (circuit anticipations) are not in the switching time memory, manual switching can be lost under certain conditions by the review.
- In addition, impulses from the past are not detected by the review.

The review is performed:

- after resets
- after programming
- after deleting or modifying switching times
- after summer / winter time switching

**Room for notes**