

# SmartPlug SPT1-AP6X / SPT1-AN6X

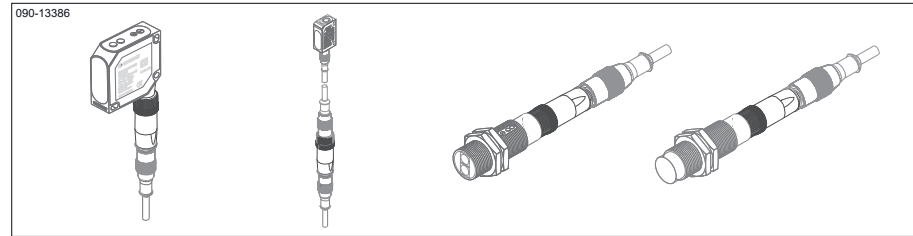
**TURCK**

Programmable timer for rise-delay time or fall-delay time

- direct adaptation between sensor and connecting cable
- teachable as rise-delay time or fall-delay time
- simple setting by external teach-input
- no additional wiring required
- time range between 1 and 65535 ms
- switching amplifier up to 150 mA
- can be used as pulse stretcher



The SPT1 SmartPlug is a freely programmable timer for the direct adaptation to sensors with a standardized M12 connection.

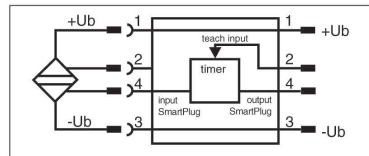


The SPT1 SmartPlug is available in 2 versions:

- PNP input - PNP output SPT1-AP6X (for use with PNP sensors)
- NPN input - NPN output SPT1-AN6X (for use with NPN sensors)

## Connection:

The SmartPlug is very easy to connect: it is plugged onto the M12 connector of a sensor and the connecting cable is connected to the other side of the SmartPlug. The sensor configuration has to meet the standards (1 +Ub (BN) 3 -Ub (BU) 4 output (BK)).

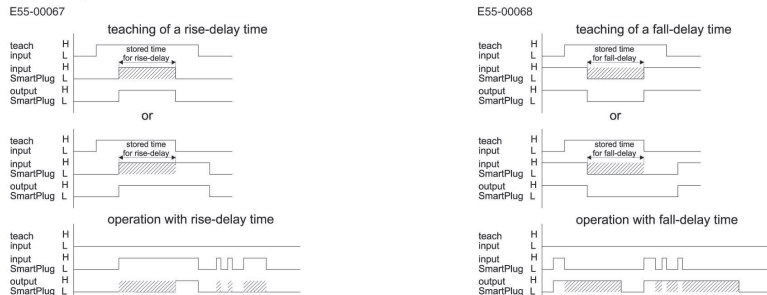


## Setting:

The setting of the delay time is made by means of the signals "Teach input" and "Input SmartPlug". A delay time of 4 secs for example can be set as follows (the operating voltage being switched on):

1. Connect teach input with + Ub
2. Actuate sensor for 4 secs
3. Disconnect teach input from + Ub -> READY

After this setting the SmartPlug has a slow operation lasting 4 secs. This setting is maintained when the sensor is switched off.



H = input or output active; L = input or output inactive

When switching on the operating voltage, the timer is reset. The initial state of the preset time is 100 ms fall-delay.

Subject to change without prior notice

TURCK, Inc. 3000 Campus Drive Minneapolis, MN 55441 Phone: 800-328-0580 Fax: 763-553-0708

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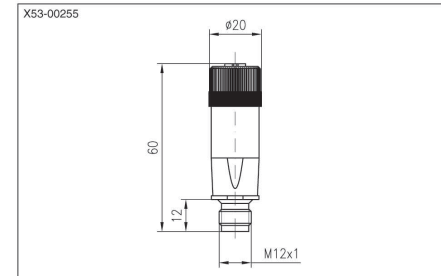
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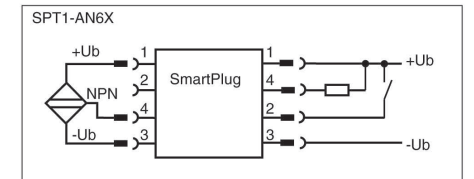
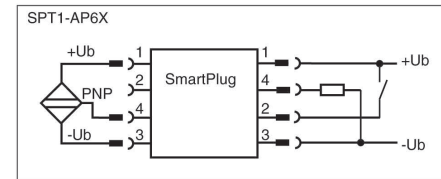
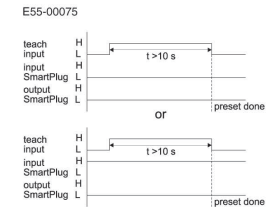
## Technical Data:

Operating voltage: 10 ... 30 V DC, residual ripple of max. 10 %  
 Own current consumption: < 10 mA  
 Input resistance: > 10 kOhm  
 Max. input frequency: 10 kHz  
 Min. response time: 0.1 ms  
 Max. output current: 150 mA short-circuit proof  
 Ambient temperature range: 0 ... +60 °C  
 Storage temperature range: -20 ... +60 °C

Display: red LED  
 Housing material: plastic PBTP/PA  
 Protection standard: IP 67  
 Dimensions: ø20 x 60  
 Connection Input: 4-pin socket M12  
 Connection Output: 4-pin connector M12  
 Protection class (only if both ends connected): □  
 Weight: 15 g



## Preset to factory setting 100 ms fall-delay



Function	SmartPlug	Setting
N.C./N.O. inverter	SPC1	Interval counter 1
Flip Flop	SPC1	Interval counter 2
Divider (1 pulse per evolution)	SPC1	Pulse counter n
Count parts (count down)	SPC1	Pulse counter n
Amplifier 150 mA	SPC1	Pulse counter 1
Off delay	SPT1	Off delay n
On delay	SPT1	On delay n
PNP / NPN converter	SPN1-AP6-ARN6X	Factory setting
NPN / PNP converter	SPN1-AN6-ARP6X	Factory setting
PNP / NPN converter and N.C./N.O. inverter	SPN1-AP6-ARN6X	Setup: N.O. -> N.C.
NPN / PNP converter and N.C./N.O. inverter	SPN1-AN6-ARP6X	Setup: N.O. -> N.C.
Motion monitor	SPF1-AP6X	
Spin monitor	SPF1-AP6X	
Jam monitor	SPF1-AP6X	



SmartPlugs may only be used in combination with a proximity switch according to EN IEC 60947-5-2.



These units are not suited for safety related applications.

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