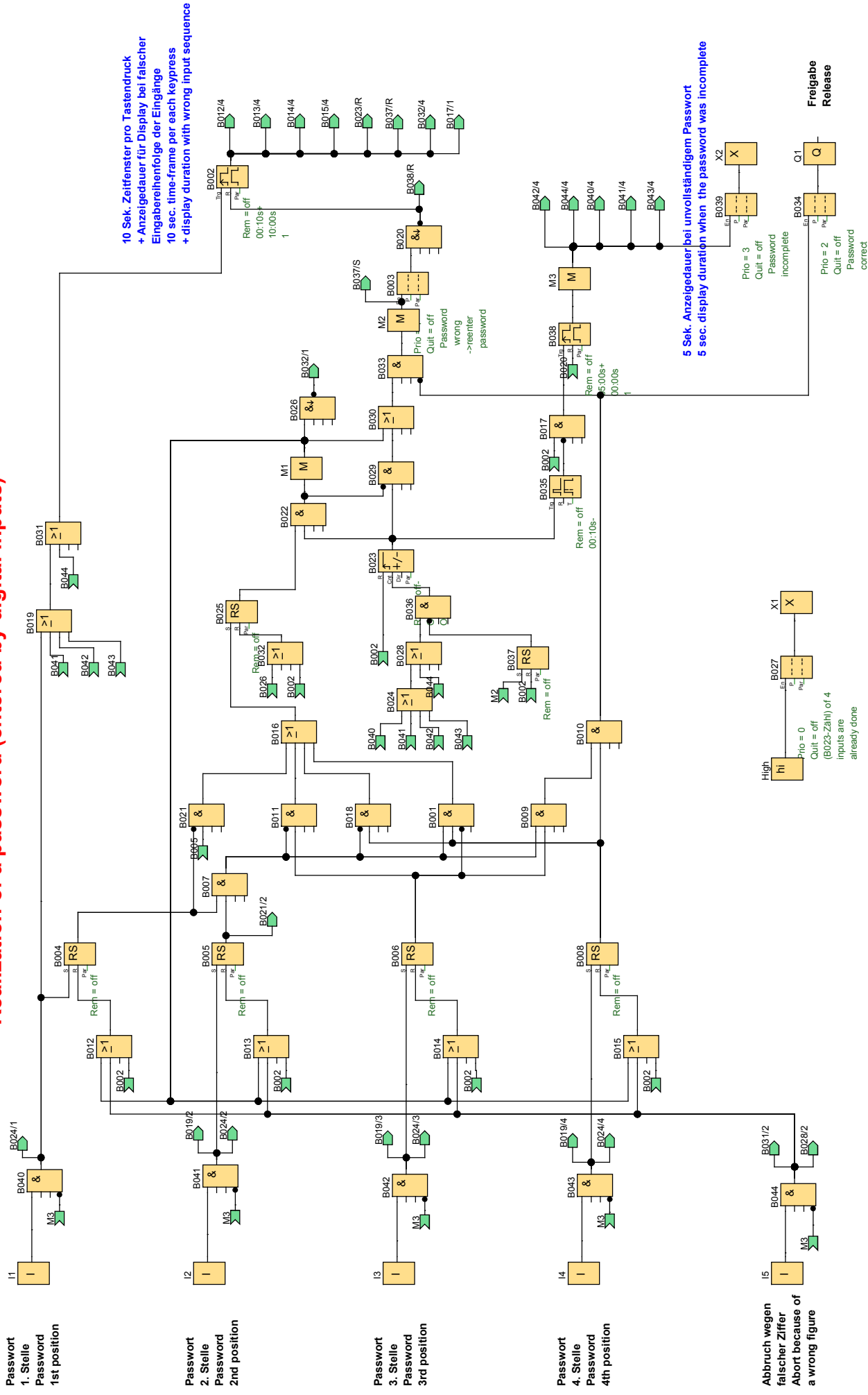


# Realisierung eines Passwortes (eingegeben mit digitalen Eingängen) Realization of a password (entered by digital inputs)



Creator:	IDEC	Project:	Password by using digital inputs	Customer:	IDEC
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**English:**

**Requirement:**

IDEC SmartRelay is to protect the access to an object by a four-digit password. This object can be e.g. the parameterization of a machine, the entrance to a safety area etc..  
The password should be able to be entered by an external device, e.g. by a computer keyboard.

**IDEC SmartRelay-Solution:**

Four buttons of an external keyboard are wired to IDEC SmartRelay's inputs I1 up to I4. These are the relevant buttons of the password.

The rest of the keys are wired to the input I5.

If the four relevant buttons of the password are pressed in the correct sequence, the inputs I1, I2, I3 and I4 are addressed consequently one after another (so the password is I1 > I2 > I3 > I4). Thereon a release at the output Q1 of IDEC SmartRelay takes place.

Every other combination / sequence of pressing the four buttons is not allowed and causes an error message on the display of IDEC SmartRelay.

Just if one of the other buttons get pressed, which are wired to the input I5, or if not all four necessary positions are entered, an error message appears as well.

For each keypress there is a time-frame of 10 seconds (variable adjustable at function block B002).

**Used components:**

- IDEC SmartRelay with display
- I1 Input for the first position of the password / the keyboard
- I2 Input for the second position of the password / the keyboard
- I3 Input for the third position of the password / the keyboard
- I4 Input for the fourth position of the password / the keyboard
- I5 Input for the rest of the buttons of the keyboard
- Q1 Release output

**Advantages and specifics:**

- The safety representative / programmer is able to define the passwords himself by wiring.
- The time-frame for pressing the buttons is variable adjustable.
- Accordant message textes show how much positions of the password are already entered and if the entry was successful or not.

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**IDEC - Beispielprogramm**  
**Warnung und Haftungsausschluss**

IDEC  
Programmbeispiel ohne Gewähr

Warnung:  
Steuerungen können bei unsicheren Betriebszuständen ausfallen und dadurch den unkontrollierten Betrieb der gesteuerten Geräte verursachen. Solche gefährliche Ereignisse können zu tödlichen und/oder schweren Verletzungen und/oder Sachschäden führen. Sorgen Sie daher für eine NOT-AUS-Funktion, elektrische oder andere redundante Sicherheitseinrichtungen, die von Ihrem Automatisierungssystem unabhängig sind.

Haftungsausschluss:  
Jeder Anwender ist für den sachgemäßen Betrieb seines IDEC SmartRelay-Systems selbst verantwortlich. Dieses Programm enthebt Sie nicht der Verpflichtung zu sicherem Umgang bei Anwendung, Installation, Betrieb und Wartung. Durch die Nutzung dieses von der IDEC erstellten Programm-Beispiels erkennen Sie an, daß die IDEC unter keinen Umständen für möglicherweise infolge der Nutzung auftretende Sach- und/oder Personenschäden haftbar gemacht werden kann.

**IDEC- Example Program**  
**Warning and Disclaimer of Liability**

IDEC  
Example Program without Liability

Warning:  
Unsafe operating conditions can cause controllers to fail, resulting in unchecked operation of controlled devices.  
Such hazardous events can cause death and/or serious injury and/or material damage. You must therefore provide an emergency stop function and electric or other redundant safety devices that are independent of your automation system.

Disclaimer of Liability:  
Users are solely responsible for the correct operation of their IDEC SmartRelay systems. This program does not relieve you of the obligation to observe safe practices during implementation, installation, operation, and maintenance. By using this example program created by IDEC, you acknowledge that IDEC cannot under any circumstances be held liable for any possible personal injury or material damage resulting from the use of this program.

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Block Number (Type)	Parameter
B002(Edge-triggered interval time-delay relay) :	Rem = off 00:10s+ 10:00s 1
B003(Message texts) :	Prio = 1 Quit = off Password wrong ->reenter password
B004(Latching relay) :	Rem = off
B005(Latching relay) :	Rem = off
B006(Latching relay) :	Rem = off
B008(Latching relay) :	Rem = off
B023(Up/Down counter) :	Rem = off On=4- Off=1 Start=0
B025(Latching relay) :	Rem = off
B027(Message texts) :	Prio = 0 Quit = off (B023-Cnt) of 4 inputs are already done
B034(Message texts) :	Prio = 2 Quit = off Password correct
B035(Off-delay) :	Rem = off 00:10s-
B037(Latching relay) :	Rem = off
B038(Edge-triggered interval time-delay relay) :	Rem = off 05:00s+ 00:00s 1
B039(Message texts) :	Prio = 3 Quit = off Password incomplete

Connection	Label
I1	
I2	
I3	
I4	
I5	
Q1	
X1	
X2	



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