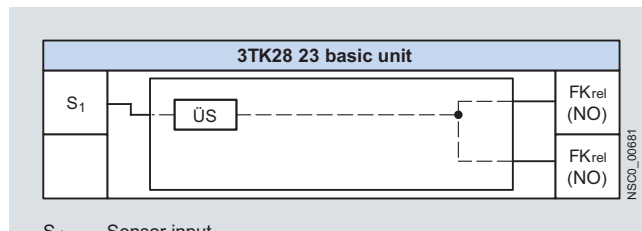
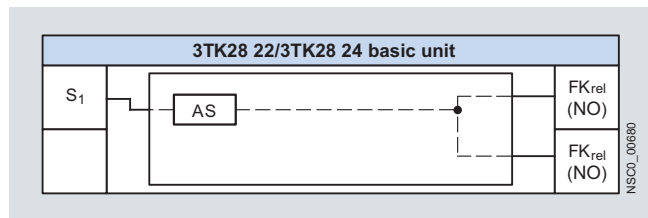
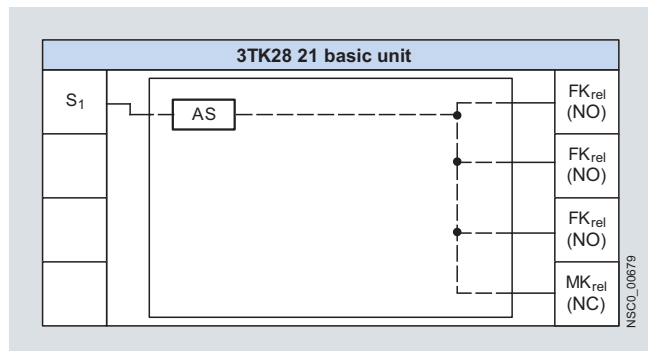


Function

Basic units

3TK28 21 to 3TK28 24

The devices 3TK28 21 to 3TK28 24 each have one sensor input and a varying number of relay enabling circuits and signaling outputs. If the signal is no longer applied to the sensor input, the enabling circuits are disconnected immediately or according to the set delay timed.



Legend

Sensor interface

S_x : Sensor input

Safety logic

AS: Automatic start. Device starts automatically once the enabling conditions are fulfilled. If a START button is integrated in the feedback circuit, a manual start is also possible (up to Category 3 according to EN 954-1).

ÜS: Monitored start. Device does not start until after the enabling conditions are fulfilled and a start signal is issued.

Actuator interface

FK_{rel}: Enabling circuit, relay contact (floating)
MK_{rel}: Signaling circuit, relay contact (non-floating)
NC: NC contact
NO: NO contact

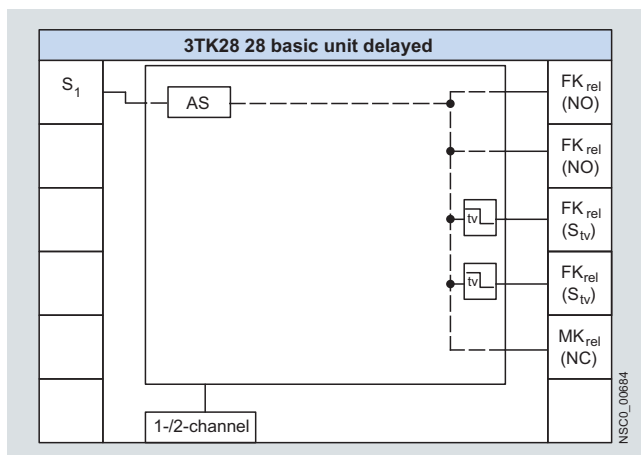
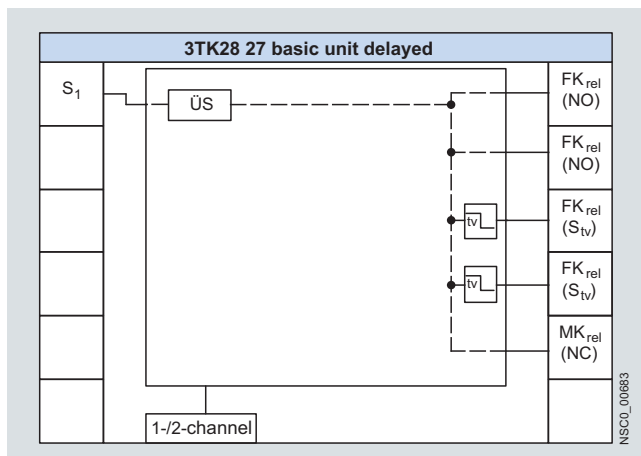
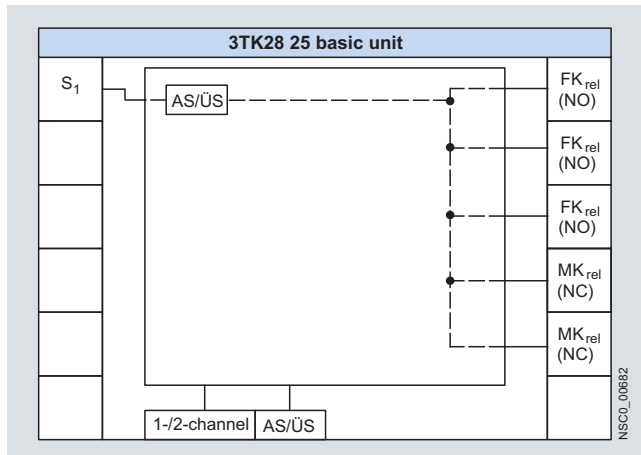
3TK28 Safety Relays

With relay enabling circuits

Basic units

3TK28 25, 3TK28 27 and 3TK28 28

The devices 3TK28 25, 3TK28 27 and 3TK28 28 each have one sensor input and a varying number of contactor relay enabling circuits and signaling outputs. If the signal is no longer applied to the sensor input, the enabling circuits are disconnected immediately or according to the set delay timed.

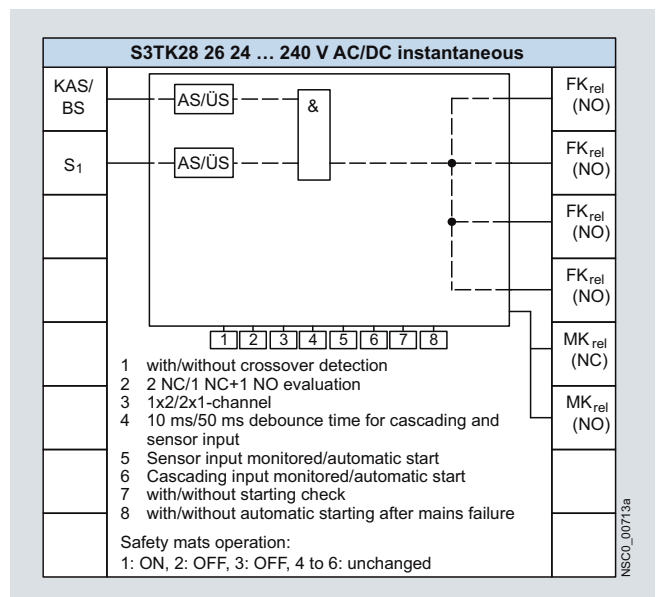
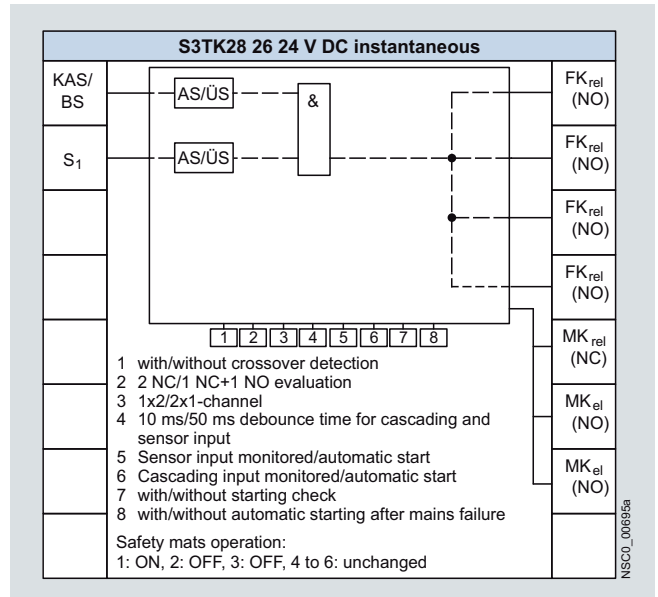


Basic units

3TK28 26

The 3TK28 26 safety relay combines several functions in one unit. The sensor input S_1 and the cascading input KAS are suitable for connecting sensors with contacts, non-contact sensors (electronic sensors), safety mats and NC/NO magnetically operated switches.

DIP switches mounted on the front can be used to adapt the functions of the device to the functions required.

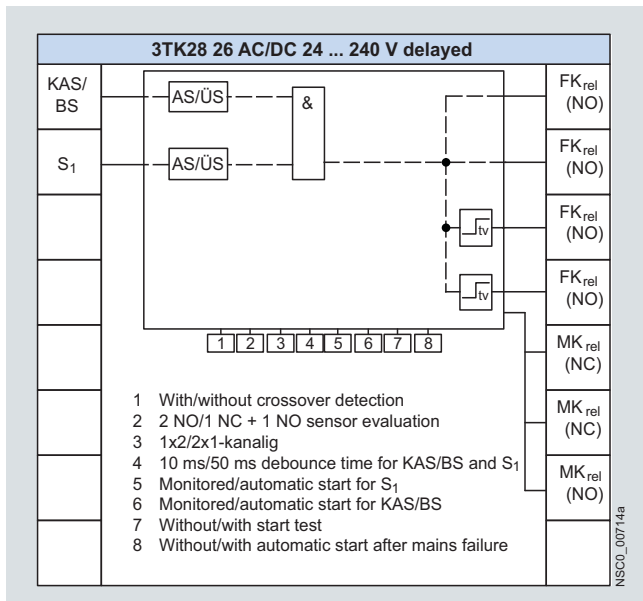
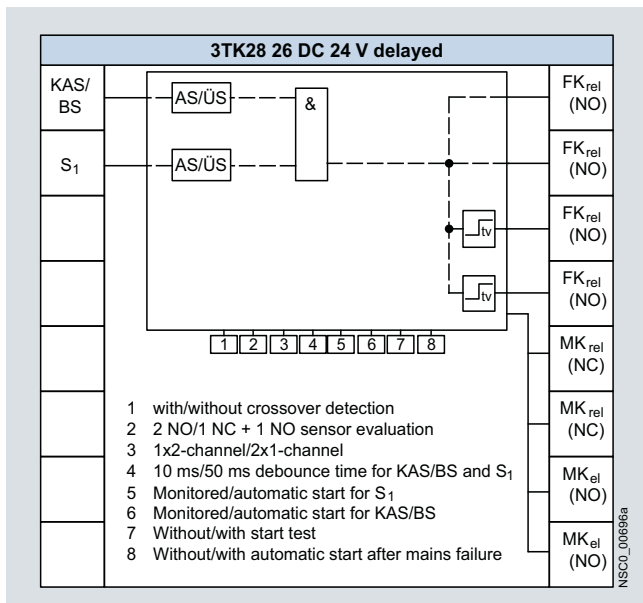


3TK28 Safety Relays

With relay enabling circuits

Basic units

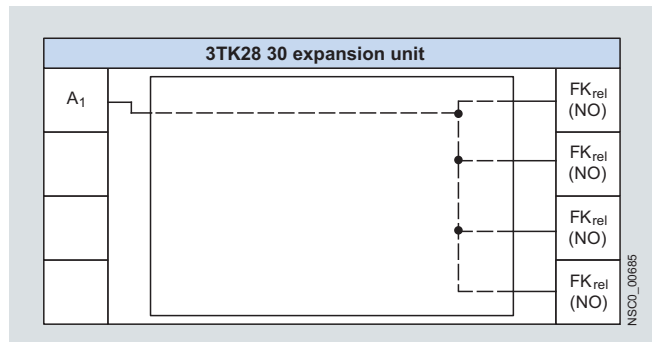
3TK28 26 (continued)



Expansion units

3TK28 30

The 3TK28 30 is activated through the power supply input A1. On the output side are four contactor relay enabling circuits. If the signal is no longer applied to the input, the enabling circuits are isolated immediately.



Legend

Sensor interface

S_x: Sensor input
 A1: Power supply input as sensor input or cascading input
 KAS/BS: Cascading input or normal switching duty.
 Normal switching duty: Connection of a PLC output for example. The enabling circuits and hence the connected loads can then be operated by the machine control. The safety function is on a higher level.

Safety logic

AS: Automatic start. Device starts automatically once the enabling conditions are fulfilled. If a START button is integrated in the feedback circuit, a manual start is also possible (up to Category 3 according to EN 954-1).
 AS/ÜS: Automatic or monitored start depending on the parameterization
 ÜS: Monitored start. Device does not start until after the enabling conditions are fulfilled and a start signal is issued.



Time delay, OFF-delay



Time delay, ON-delay

Parameters

1 to 8: See drawing
 1-/2-channel: One-channel / two-channel sensor connection
 AS/ÜS: Automatic or monitored start depending on the parameterization

Actuator interface

FK_{rel}: Enabling circuit, relay contact (floating)
 MK_{rel}: Signaling circuit, solid-state (non-floating)
 MK_{rel}: Signaling circuit, relay contact (non-floating)
 NC: NC contact
 NO: NO contact
 S_{iv}: NO contact, time-delayed