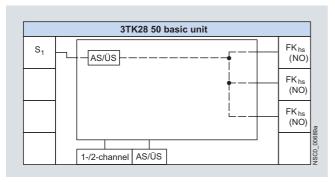
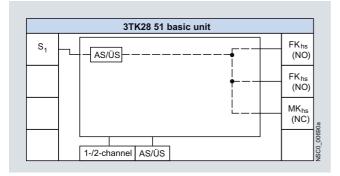
# Function

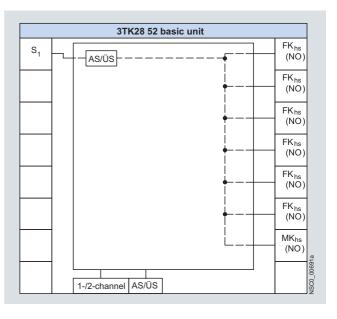
### Basic units

### 3TK28 50 to 3TK28 52

The devices 3TK28 50 to 3TK28 52 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.







### Legend

# Sensor interface

S<sub>x</sub>: Sensor input

### Safety logic

AS/ÜS: Automatic or monitored start depending on the parameterization

### Parameters

1-/2-channel: One-channel / two-channel sensor connection

AS/ÜS: Automatic or monitored start depending on the parameterization

# Actuator interface

FK<sub>hs</sub>: Enabling circuit, contactor relay (floating) MK<sub>hs</sub>: Signaling circuit, contactor relay (floating)

NO: NO contact NC: NC contact

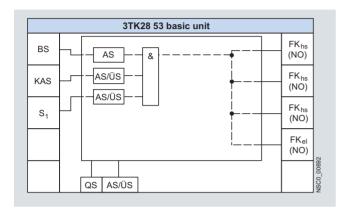
# **3TK28 Safety Relays**

# With contactor relay enabling circuits

### Basic units

## 3TK28 53

The 3TK28 53 has one sensor input and one input for normal switching duty and one cascading input. On the output side is a varying number of solid-state enabling circuits or contactor relay enabling circuits. If the signal is no longer applied to one of the inputs, the enabling circuits are isolated immediately. Autostart or monitored start can be selected in the parameterization.



### Legend

# Sensor interface

S<sub>x</sub>: 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

Parameters

With or without crossover monitoring

AS/ÜS Automatic or monitored start depending on the parameterization

tvL Time delay, OFF-delay

# Actuator interface

FK<sub>el</sub>: FK<sub>hs</sub>: MK<sub>hs</sub>: NO: Enabling circuit, solid-state (non-floating) Enabling circuit, contactor relay (floating) Signaling circuit, contactor relay (floating) NO contact

NO<sub>tv</sub> NC: NO contact, time-delayed

NC contact

# **Expansion units**

### 3TK28 56 and 3TK28 57

The 3TK28 56 and 3TK28 57 devices each have one one input for normal switching duty and one cascading input. On the output side is a varying number number of solid-state enabling circuits or contactor relay enabling circuits and signaling outputs. If the signal is no longer applied to one of the inputs, the enabling circuits are isolated immediately or according to the set

