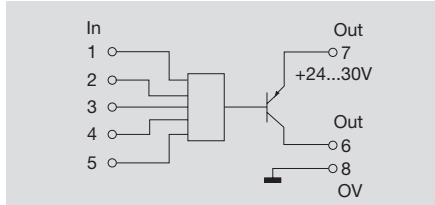
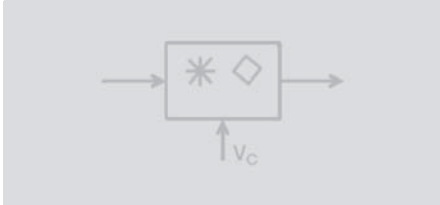
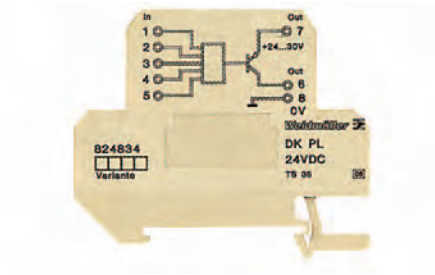


Preprocessing logic

Preprocessing logic

- Logic function and time function can be combined
- Individually programmable (further functions on request)

DKPL



Technical data

Input

Rated input level/
Input current
Max. voltage
Pulse duration/

24 Vdc = high, 0 V = low/
approx. 1.5 mA each input (24V)
30 Vdc
> 1 ms/

Output

Output level/
Output current/
Switching thresholds/

PNP, Ub-1 V/
max. 20 mA/
high > 18 V, low < 7 V/

General data

Supply voltage
Current consumption
Operation temperature
Storage temperature
Approvals

24 Vdc +/- 20 %
< 10 mA
0 °C...+50 °C
-40 °C...+60 °C
CE / ESD

Dimensions

Clamping range (rating- / min. / max.) mm²
Length x width x height mm

Screw connection

4 / 0.50 / 4
65.0 x 6.0 x 57.0

Information

Ordering data

Type of connection

Screw connection

Type	Qty.	Order No.
DKPL 35 24VDC	5	8248340000

Information

not programmed - functions see following page

Accessories

Information

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Delivery times see page X.2

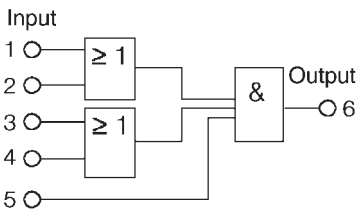
Remarks:

The module is programmed specifically to customer requirements. Up to 5 inputs can be linked with various logic and time functions, e.g. AND, OR, EXOR, NAND, NOR, EXNOR, delay links, etc.
The output is either low- or high-active.

824834 0001 DKPL

A = (E1 OR E2) AND (E3 OR E4) AND E5

Status	5	4	3	2	1	Output 6
1	0	0	0	0	0	0
2	0	0	0	0	1	0
3	0	0	0	1	0	0
4	0	0	0	1	1	0
5	0	0	1	0	0	0
6	0	0	1	0	1	0
7	0	0	1	1	0	0
8	0	0	1	1	1	0
9	0	1	0	0	0	0
10	0	1	0	0	1	0
11	0	1	0	1	0	0
12	0	1	0	1	1	0
13	0	1	1	0	0	0
14	0	1	1	0	1	0
15	0	1	1	1	0	0
16	0	1	1	1	1	0
17	1	0	0	0	0	0
18	1	0	0	0	1	0
19	1	0	0	1	0	0
20	1	0	0	1	1	0
21	1	0	1	0	0	0
22	1	0	1	0	1	1
23	1	0	1	1	0	1
24	1	0	1	1	1	1
25	1	1	0	0	0	0
26	1	1	0	0	1	1
27	1	1	0	1	0	1
28	1	1	0	1	1	1
29	1	1	1	0	0	0
30	1	1	1	0	1	1
31	1	1	1	1	0	1
32	1	1	1	1	1	1

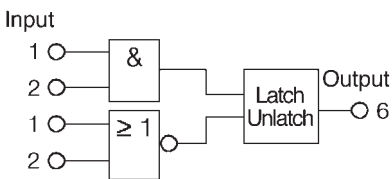


824834 0002 DKPL

Inputs 1 and 2 have the function of an RS FLIP-FLOP
Inputs 3, 4 and 5 have no function

Input 2	Input 1	Output 6
0	0	0 (is saved)
0	1	no change to the saved status
1	0	no change to the saved status
1	1	1 (is saved)

Inputs 3, 4 and 5 with-out function

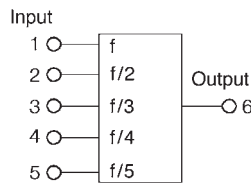


824834 0003 DKPL Frequency divider

Inputs 1 - 5 determine the division factor
Input 1 = division factor 1: $F_{OUT} = F_{IN} \cdot 1$
Input 2 = division factor 2: $F_{OUT} = F_{IN} \cdot 2$
Input 5 = division factor 5: $F_{OUT} = F_{IN} \cdot 5$; $F_{IN} \text{ max.} = 12 \text{ kHz}$

Input	Output 6
1	$f_{out} = f_{in}$
2	$f_{out} = f_{in} / 2$
3	$f_{out} = f_{in} / 3$
4	$f_{out} = f_{in} / 4$
5	$f_{out} = f_{in} / 5$

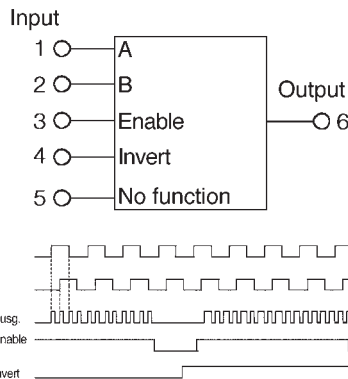
Remarks: a new division factor can only be used after the operating voltage has been switched off. $f_{in} \text{ max.} = 12 \text{ kHz}$



824834 0004 DKPL

Input 1: signal A from an incremental transducer
Input 2: signal B90 offset
Input 3: enable high active
Input 4: output signal inverted high active
Input 5: no function
Output: the output is set for 20 - 30 μ s at every edge of signal A or B
(i.e.: $F_{OUT} = 4 \times F_{IN}$)
 $F_{IN} \text{ max.} = 1 \text{ kHz}$

Connection	Description
1	A Signal A 90° leading $F_{max} = 1 \text{ kHz}$
2	B Signal B 90° trailing $F_{max} = 1 \text{ kHz}$
3	enable enable output
4	invert invert output signal
5	no function
6	$f_{out} = 4 \times f_{A/B} \text{ (max. } 4 \text{ kHz)}$



824834 0005 DKPL

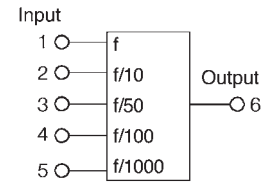
Input pulse length between 80 and 100 ms
Output pulse length 100 ms, only 2 pulses
Pulse/pause ratio 1:1.
The positive edge of the input signal must be evaluated.
Only input E1 is used.

824834 0006 DKPL

Input 1: $F_{OUT} = F_{IN} \cdot 10$
Input 2: $F_{OUT} = F_{IN} \cdot 10$

Input	Output 6
1	$f_{out} = f_{in}$
2	$f_{out} = f_{in} / 10$
3	$f_{out} = f_{in} / 50$
4	$f_{out} = f_{in} / 100$
5	$f_{out} = f_{in} / 1000$

Remarks: a new division factor can only be used after the operating voltage has been switched off. $f_{in} \text{ max.} = 3 \text{ kHz}$



824834 0007 DKPL

Input 1	Input 2	Input 3	Input 4	Input 5	Output
L	L	X	X	X	no function
H	L	X	X	X	$f = 1 \text{ Hz}$
L	H	X	X	X	$f = 10 \text{ Hz}$
H	H	X	X	X	$f = 1 \text{ Hz}$

L -> 0 V or connection open
H -> +24 ...30 Vdc
X -> no influence on the output function, L or H

824834 0008 DKPL

Input 1	Input 2	Output
H	H	H
L	H	L

824834 0010 DKPL

RS FLIP-FLOP with superimposed S-input (connection 2)
Inputs connections 3, 4 and 5 must be at 0V or remain open!

Connection1 logic R-input	Connection2 logic S-input	Connection6 logic Output
0 V or open	L	0 V or open
0 V or open	L	previous status is saved
+24 Vdc	H	0 V
0 V or open	L	+24 Vdc
+24 Vdc	H	+24 Vdc

824834 0501 DKPL

The component allows for division of the input frequency at connection 1 (0 .. max. 50 kHz) with 2 fixed division factors. Depending on connection 2, the output frequency is issued at the output connection 6.
Connections 3, 4 and 5 have no function

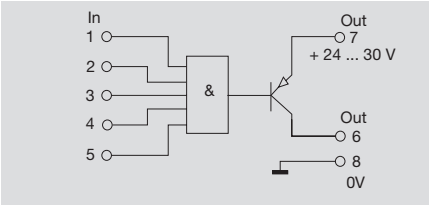
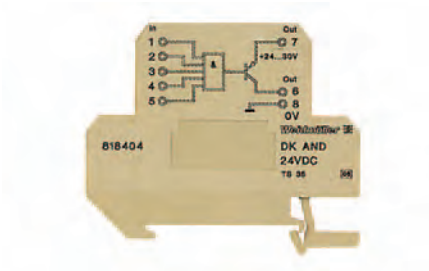
Connection2 logic	Factor	Input frequency Connection 1	Output frequency Connection 2
0 V or open	L	75	0...30 kHz
24 Vdc	H	27	0...10.8 kHz

Preprocessing logic

Preprocessing logic

- Logic functions
- Compact design
- PLC load reduction

AND



Technical data

Input

Rated input level/
Input current
Max. voltage
Pulse duration/

24 Vdc = high, 0 V = low/
approx. 1.5 mA each input (24V)
30 Vdc
> 50 µs/

Output

Output level/
Output current/
Switching thresholds/

PNP, $U_b - 1.8$ V/
max. 20 mA/
high < 15 V, low < 9 V/

General data

Supply voltage
Current consumption
Operation temperature
Storage temperature
Approvals

24...30 Vdc
< 5 mA
0 °C...+50 °C
-40 °C...+60 °C
CE / ESD

Dimensions

Clamping range (rating- / min. / max.) mm²
Length x width x height mm

Screw connection

4 / 0.50 / 4
65.0 x 6.0 x 57.0

Information

Ordering data

Type of connection

Screw connection

Type

DK AND 35 24VDC

Qty.

5

Order No.

8184040000

Information

Accessories

Information

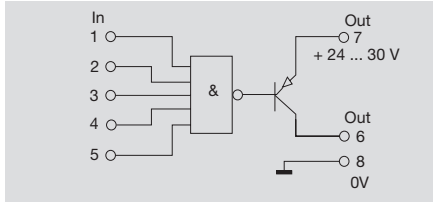
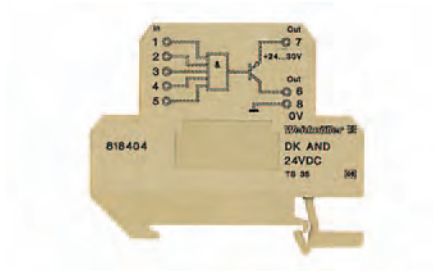
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Preprocessing logic

Preprocessing logic

- Logic functions
- Compact design
- PLC load reduction

NAND



Technical data

Input

Rated input level/
Input current
Max. voltage
Pulse duration/

24 Vdc = high, 0 V = low/
approx. 1.5 mA each input (24V)
30 Vdc
> 50 µs/

Output

Output level/
Output current/
Switching thresholds/

PNP, $U_b - 1.8$ V/
max. 20 mA/
high < 15 V, low < 9 V/

General data

Supply voltage
Current consumption
Operation temperature
Storage temperature
Approvals

24...30 Vdc
< 5 mA
0 °C...+50 °C
-40 °C...+60 °C
CE / ESD

Dimensions

Clamping range (rating- / min. / max.) mm²
Length x width x height mm

Screw connection

4 / 0.50 / 4
65.0 x 6.0 x 57.0

Information

Ordering data

Type of connection

Screw connection

Type	Qty.	Order No.
DK NAND 35 24VDC	5	8248320000

Information

Accessories

Information

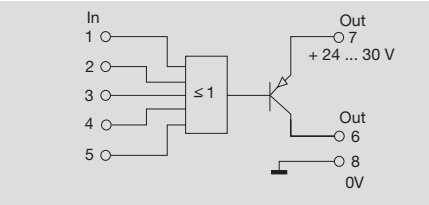
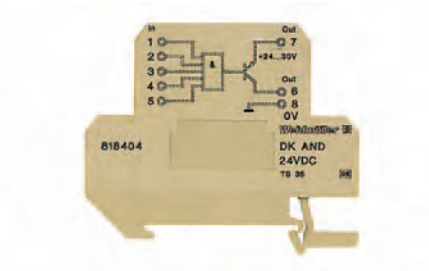
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Preprocessing logic

Preprocessing logic

- Logic functions
- Compact design
- PLC load reduction

OR



Technical data

Input

Rated input level/
Input current
Max. voltage
Pulse duration/

24 Vdc = high, 0 V = low/
approx. 1.5 mA each input (24V)
30 Vdc
> 50 µs/

Output

Output level/
Output current/
Switching thresholds/

PNP, $U_b - 1.8$ V/
max. 20 mA/
high < 15 V, low < 9 V/

General data

Supply voltage
Current consumption
Operation temperature
Storage temperature
Approvals

24...30 Vdc
< 5 mA
0 °C...+50 °C
-40 °C...+60 °C
CE / ESD

Dimensions

Clamping range (rating- / min. / max.) mm²
Length x width x height mm

Screw connection

4 / 0.50 / 4
65.0 x 6.0 x 57.0

Information

Ordering data

Type of connection

Screw connection

Type

DK OR 35 24VDC

Qty.

5

Order No.

8218440000

Information

Accessories

Information

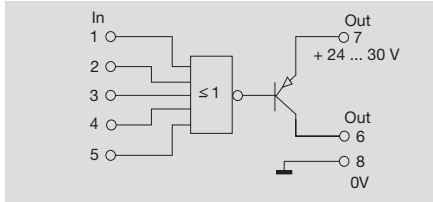
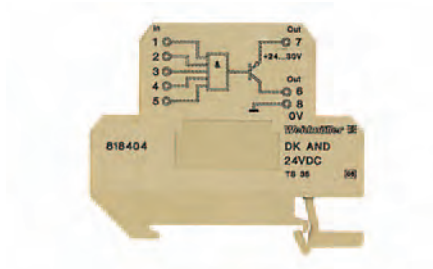
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Preprocessing logic

Preprocessing logic

- Logic functions
- Compact design
- PLC load reduction

NOR



Technical data

Input

Rated input level/
Input current
Max. voltage
Pulse duration/

24 Vdc = high, 0 V = low/
approx. 1.5 mA each input (24V)
30 Vdc
> 50 µs/

Output

Output level/
Output current/
Switching thresholds/

PNP, $U_b - 1.8$ V/
max. 20 mA/
high < 15 V, low < 9 V/

General data

Supply voltage
Current consumption
Operation temperature
Storage temperature
Approvals

24...30 Vdc
< 5 mA
0 °C...+50 °C
-40 °C...+60 °C
CE / ESD

Dimensions

Clamping range (rating- / min. / max.) mm²
Length x width x height mm

Screw connection

4 / 0.50 / 4
65.0 x 6.0 x 57.0

Information

Ordering data

Type of connection

Screw connection

Type	Qty.	Order No.
DK NOR 35 24VDC	5	8248330000

Information

Accessories

Information

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