

3.6.2 Four digital inputs - EPM-S201 and EPM-S205 (NPN)

This module detects up to four binary control signals from the process level and transmits them to the higher-level bus system.

Features

- ▶ 4 digital inputs (EPM-S205: N-switching)
- ▶ Suitable for switches and proximity switches
- ▶ LEDs display the switching states of the digital inputs

Overview

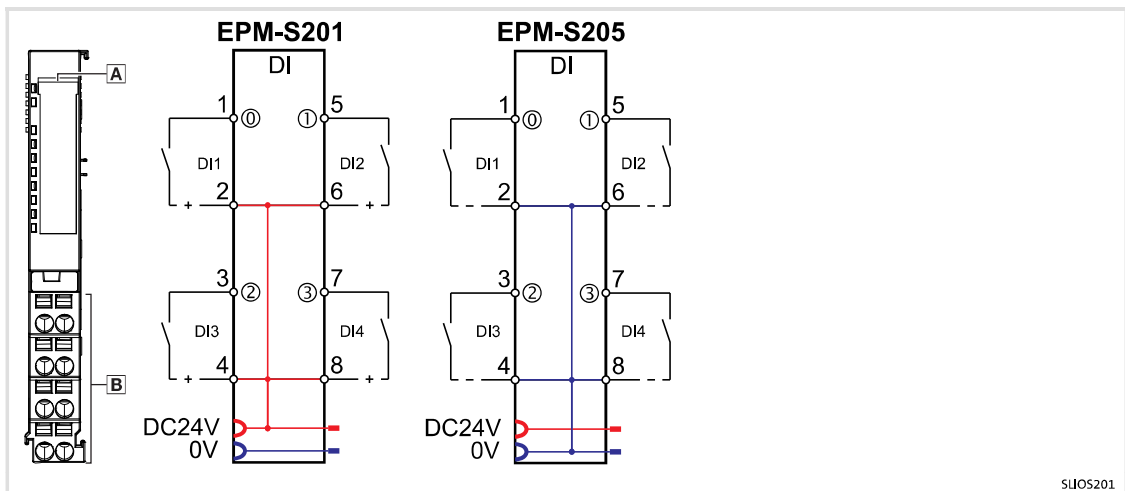


Fig. 3-16 Elements and circuit diagram



- A** Displays for module status
- B** Terminals
- 1 ... 8 Connection number
- ⓪ ... ⑦ Bit number in bit presentation


Product description

I/O compound modules - digital I/O


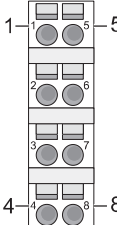
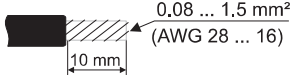
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Status displays

Module status LEDs 					
View	Pos.	Designation	Colour	Explanation	
 SU0001	1	RUN	Green	On: Module is ready for operation	
	2	MF	Red	On: Module error (see table below)	
	3	DI1	Green	On: Digital input triggered	
	4	DI2			
	5	DI3			
	6	DI4			
	7				
	8	-	-		Not assigned
	9				
	10				

Messages of the status LEDs RUN and MF		
RUN	MF	Meaning
On	Off	Module status OK Bus communication is OK
On	On	Module reports error Bus communication is OK
Off	On	Module reports error Bus communication not possible
Off	Off	Error in the bus supply voltage
Blinking	Blinking	Configuration error  274)

Terminals

Module terminals, spring terminals 			
View	Designation	Explanation	Terminal data
 SU0002	1	Digital input DI1	
	2	24 V DC	
	3	Digital input DI3	
	4	24 V DC	
	5	Digital input DI2	
	6	24 V DC	
	7	Digital input DI4	
	8	24 V DC	

Technical data

EPM-S201 / EPM-S205 (NPN): rated data	
Module identifier	EPM-S201: 3 _{dec} ; EPM-S205: 4 _{dec}
Current consumption/power loss	
Current consumption from backplane bus	EPM-S201: 55 mA; EPM-S205: 65 mA;
Power loss	0.6 W
Digital inputs	
Number of inputs	4
Cable length	
shielded	1000 m
unshielded	600 m
Input voltage	
Nominal value	DC 24 (DC 20.4 ... 28.8 V)
for signal "0"	EPM-S201: DC 0 ... 5 V; EPM-S205: DC 15 ... 28.8 V
for signal "1"	EPM-S201: DC 15 ... 28.8 V; EPM-S205: DC 0 ... 5 V
Input current	
for signal "1"	3 mA
2-wire BERO	
Connection possible	Yes
Max. permissible closed-circuit current	0.5 mA
Input delay	
from "0" to "1"	3 ms
from "1" to "0"	3 ms
Number of inputs which can be used simultaneously	
horizontal structure	4
vertical structure	4
Input characteristic	EPM-S201: IEC 61131, type 1; EPM-S205: none
Input data size	8 bits (with EPM-S110: 4 bits)
Status, alarm, diagnostics	
Status display	Green LEDs per channel
Alarms	No
Process alarm	No
Diagnostic alarm	No
Diagnostic function	No
Diagnostic information can be read out	None
Module status	Green LED
Module error display	Red LED
Channel error display	None
Electrical isolation	
Between the channels and the backplane bus	Yes
Insulation checked with	DC 500 V