Data sheet
SM 153, PB-DP slave (153-6PL00)

Technical data

Order no.	153-6PL00
Type	SM 153, PB-DP slave
General information	
Note	-
Features	16x DI, DC 24 V 16x DO, DC 24 V, 1 A
Technical data power supply	
Power supply (rated value)	DC 24 V
Power supply (permitted range)	DC 20.4...28.8 V
Reverse polarity protection	yes
Current consumption (no-load operation)	-
Current consumption (rated value)	55 mA
Technical data digital inputs	
Number of inputs	16
Cable length, shielded	1000 m
Cable length, unshielded	600 m
Rated load voltage	DC 24 V
Reverse polarity protection of rated load voltage	-
Current consumption from load voltage L+ (without load)	-
Rated value	DC 24 V
Input voltage for signal "0"	DC 0...5 V
Input voltage for signal "1"	DC 15...28.8 V
Input voltage hysteresis	-
Frequency range	-
Input resistance	-
Input current for signal "1"	7 mA
Connection of Two-Wire-BEROs possible	yes
Max. permissible BERO quiescent current	1.5 mA
Input delay of "0" to "1"	3 ms
Input delay of "1" to "0"	3 ms
Number of simultaneously utilizable inputs horizontal configuration	16
Number of simultaneously utilizable inputs vertical configuration	16
Input characteristic curve	IEC 61131-2, type 1
Initial data size	2 Byte
Technical data digital outputs	
Number of outputs	16
Cable length, shielded	1000 m
Cable length, unshielded	600 m
Rated load voltage	DC 24 V
Reverse polarity protection of rated load voltage	-

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Current consumption from load voltage L+ (without load)	55 mA
Total current per group, horizontal configuration, 40°C	4 A
Total current per group, horizontal configuration, 60°C	2 A
Total current per group, vertical configuration	2 A
Output voltage signal "1" at min. current	L+ (-0.8 V)
Output voltage signal "1" at max. current	L+ (-1.5 V)
Output current at signal "1", rated value	1 A
Output delay of "0" to "1"	150 µs
Output delay of "1" to "0"	100 µs
Minimum load current	-
Lamp load	5 W
Parallel switching of outputs for redundant control of a load	not possible
Parallel switching of outputs for increased power	not possible
Actuation of digital input	yes
Switching frequency with resistive load	max. 1000 Hz
Switching frequency with inductive load	max. 0.5 Hz
Switching frequency on lamp load	max. 10 Hz
Internal limitation of inductive shut-off voltage	L+ (-52 V)
Short-circuit protection of output	yes, electronic
Trigger level	1.5 A
Number of operating cycle of relay outputs	-
Switching capacity of contacts	-
Output data size	2 Byte
Status information, alarms, diagnostics	
Status display	green LED per channel
Interrupts	no
Process alarm	no
Diagnostic interrupt	no
Diagnostic functions	no
Diagnostics information read-out	possible
Supply voltage display	yes
Group error display	red SF LED
Channel error display	none
Isolation	
Between channels	-
Between channels of groups to	-
Between channels and backplane bus	-
Between channels and power supply	-
Max. potential difference between circuits	-
Max. potential difference between inputs (Ucm)	-
Max. potential difference between Mana and Mintern (Uiso)	-
Max. potential difference between inputs and Mana (Ucm)	-
Max. potential difference between inputs and Mintern (Uiso)	-
Max. potential difference between Mintern and outputs	-
Insulation tested with	DC 500 V
Hardware configuration	
Racks, max.	-
Modules per rack, max.	-

Number of digital modules, max.	-
Number of analog modules, max.	-

Communication

Fieldbus	PROFIBUS-DP to EN 50170
Type of interface	RS485
Connector	Sub-D, 9-pin, female
Topology	Linear bus with bus termination at both ends
Electrically isolated	yes
Number of participants, max.	125
Node addresses	1 - 99
Transmission speed, min.	9.6 kbit/s
Transmission speed, max.	12 Mbit/s
Address range inputs, max.	2 Byte
Address range outputs, max.	2 Byte
Number of TxPDOs, max.	-
Number of RxPDOs, max.	-

Datasizes

Input bytes	2
Output bytes	2
Parameter bytes	7 + 5
Diagnostic bytes	13

Housing

Material	PPE / PA 6.6
Mounting	Profile rail 35 mm

Mechanical data

Dimensions (WxHxD)	152.4 mm x 76 mm x 48 mm
Net weight	264 g
Weight including accessories	-
Gross weight	-

Environmental conditions

Operating temperature	0 °C to 60 °C
Storage temperature	-25 °C to 70 °C

Certifications

UL certification	yes
KC certification	-

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