

Data sheet SM 152 (152-4PH00)

Technical data

General information Note - Features PROFIBUS-DP slave 16 outputs Technical data power supply Power supply (rated value) DC 24 V Power supply (permitted range) DC 20.428.8 V Reverse polarity protection yes Current consumption (no-load operation) - Current consumption (rated value) 55 mA 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 DC 24 V Reverse polarity protection of rated load voltage - Current consumption from load voltage L+ (without load) Total current per group, horizontal configuration, 40°C 4 A Total current per group, horizontal configuration, 60°C Total current per group, vertical configuration, 60°C 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 delay of "0" to "1" 150 µs	
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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 information, alarms, diagnostics		
Status display	green LED per channel	
Interrupts	no	
Process alarm	no	
Diagnostic interrupt	no	
Diagnostic functions	no	
Diagnostics information read-out	none	
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.	0 Byte	
Address range outputs, max.	2 Byte	
Number of TxPDOs, max.	-	
Number of RxPDOs, max.	-	
Datasizes		
Input bytes	0	
Output bytes	2	
Parameter bytes	7 + 5	



Diagnostic bytes	13	A YASKAWA COMPANY	
Housing			
Material	PPE / PA 6.6		
Mounting	Profile rail 35 mm		
Mechanical data			
Dimensions (WxHxD)	101.6 mm x 76 mm x 48 mm		
Weight	206 g		
Environmental conditions			
Operating temperature	0 °C to 60 °C		
Storage temperature	-25 °C to 70 °C		
Certifications			
UL certification	yes		
KC certification			