Data sheet
FM 054 (054-1CB00)

Technical data

Order no.	054-1CB00
Type	FM 054
Module ID	0982 6800

General information

Note	-
Features	2-channel with feedback 4 inputs/outputs DC 24V, which can be used as encoder inputs PWM clock frequency 32 kHz

Current consumption/power loss

Current consumption from backplane bus	50 mA
Power loss	1 W

Technical data digital inputs

Number of inputs	4
Cable length, shielded	1000 m
Cable length, unshielded	600 m
Rated load voltage	-
Current consumption from load voltage L+ (without load)	-
Rated value	DC 20.4...28.8 V
Input voltage for signal "0"	DC 11...28.8 V
Input voltage for signal "1"	DC 0...5 V
Input voltage hysteresis	-
Frequency range	-
Input resistance	-
Input current for signal "1"	3 mA
Connection of Two-Wire-BEROs possible	yes
Max. permissible BERO quiescent current	0.5 mA
Input delay of "0" to "1"	1.5 ms
Input delay of "1" to "0"	1.5 ms
Number of simultaneously utilizable inputs horizontal configuration	2
Number of simultaneously utilizable inputs vertical configuration	2
Input characteristic curve	IEC 61131-2, type 3
Initial data size	4 Bit

Technical data digital outputs

Number of outputs	4
Cable length, shielded	1000 m
Cable length, unshielded	600 m
Rated load voltage	DC 20.4...28.8 V
Reverse polarity protection of rated load voltage	-
Current consumption from load voltage L+ (without load)	-

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Output current at signal "1", rated value	500 mA
Output delay of "0" to "1"	1.5 ms
Output delay of "1" to "0"	1.5 ms
Minimum load current	-
Lamp load	10 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. 300 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+ (-45 V)
Short-circuit protection of output	yes, electronic
Trigger level	1 A
Number of operating cycle of relay outputs	-
Switching capacity of contacts	-
Output data size	-

Status information, alarms, diagnostics

Status display	green LED per channel
Interrupts	yes, parameterizable
Process alarm	no
Diagnostic interrupt	yes, parameterizable
Diagnostic functions	yes
Diagnostics information read-out	possible
Supply voltage display	green LED
Group error display	red LED
Channel error display	red LED per channel

Isolation

Between channels	-
Between channels of groups to	-
Between channels and backplane bus	yes
Insulation tested with	AC 500 V

Technical data positioning module

Number of channels	2
Input voltage (rated value)	DC 24 V
Input voltage (permitted range)	DC 20.4...28.8 V
Motor current	1.5 A
Power stage	2x Full bridge PWM
Short-circuit protection	yes
Brake-Chopper required	-
PWM frequency	32 kHz
Pulse train frequency	-
Micro steps	-
Steps per rotation	-
Type of encoder	A/B phase 24V single ended
Encoder frequency	100 kHz
Encoder resolution	24 Bit

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Control type	closed loop
Temperature sensor	yes

Operating modes position functions

Homing via homing switch	yes
Positioning via torque	yes
Positioning without encoder	yes
Positioning with encoder	yes
Speed control	yes
Torque control	yes

Housing

Material	PPE / PPE GF10
Mounting	Profile rail 35 mm

Mechanical data

Dimensions (WxHxD)	12.9 mm x 109 mm x 76.5 mm
Weight	62 g

Environmental conditions

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

Certifications

UL certification	in preparation
KC certification	in preparation

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