

Data sheet

SM 222, ECO (222-1BF30)

Technical data

Type SM 222. ECO General information - Reatures & P DO DC 24 V 0.5 A Current consumption/power loss Current consumption from backplane bus 70 mA Power loss 2 W Technical data digital outputs 8 Cable length, shielded 1000 m Cable length, shielded 600 m Catel current per group, horizontal configuration, 40°C 4 A Current consumption from load voltage L+ (without load) 10 mA Total current per group, horizontal configuration, 60°C 4 A Couptur tet at signal "1", rated value 0.5 A Signal logic output Sourcing output Output current ta signal "1", rated value 0.5 A Signal logic output Sourcing output Output daipy of "0" to "1" max. 100 µs Output diapy of "1" to "0" max. 350 µs Minimum load current sel Parallel switching of outputs for increased power not possible Parallel switching of outputs for increased power not possible Parallel switching of outputs for increased power not possible Sw	Order no.	222-1BF30
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Power loss2 WTechnical data digital outputsNumber of outputs8Cable length, shielded1000 mCable length, unshielded600 mRated load voltageDC 20 428.8 VCurrent consumption from load voltage L+ (without load)10 mATotal current per group, horizontal configuration, 40°C4 ATotal current per group, horizontal configuration, 60°C4 ATotal current at signal "1", rated value0.5 ASignal logic outputSourcing outputOutput delay of "0" to "1"max. 300 µsMinimun load current-Lamp load5 WParallel switching of outputs for redundant control of a loadnot possibleParallel switching of outputs for increased powernot possibleStuching frequency with resistive loadmax. 100 HzSwitching frequency with inductive loadmax. 100 HzSwitching frequency on lamp loadmax. 100 HzSwitching frequency of inductive shut-off voltageL+ (-52 V)Short-circuit protection of outputsyes, electronicTrigger level1 ANumber of operating cycle of relay outputs-Switching reapency of contacts-Switching reapency of contacts-	Current consumption/power loss	
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Current consumption from load voltage L+ (without load)10 mATotal current per group, horizontal configuration, 40°C4 ATotal current per group, horizontal configuration, 60°C4 ATotal current per group, vertical configuration, 60°C4 AOutput current at signal "1", rated value0.5 ASignal logic outputSourcing outputOutput delay of "0" to "1"max. 100 µsOutput delay of "0" to "1"max. 350 µsMinimum load current-Lamp load5 WParallel switching of outputs for redundant control of a loadnot possibleParallel switching of outputs for increased powernot possibleActuation of digital inputyesSwitching frequency with inductive loadmax. 0.0 HzSwitching frequency on lamp loadmax. 0.10 HzInternal limitation of inductive shut-off voltageL+ (-52 V)Short-circuit protection of outputyes, electronicTrigger level1 ANumber of operating cycle of relay outputs-Switching cycle of relay outputs-Switching cycle of relay outputs-Switching cycle of relay outputs-Switching cycle of relay outputs-Surd current per group with size outputs-Switching capacity of contacts-Switching capacity of contacts- <tr <td="">Switc</tr>	Cable length, unshielded	600 m
Total current per group, horizontal configuration, 40°C4 ATotal current per group, horizontal configuration4 AOutput current at signal "1", rated value0.5 ASignal logic outputSourcing outputOutput delay of "0" to "1"max. 100 μsOutput delay of "1" to "0"max. 350 μsMinimum load current-Lamp load5 WParallel switching of outputs for redundant control of a loadnot possibleParallel switching of outputs for increased powernot possibleSwitching frequency with inductive loadmax. 0.0 HzSwitching frequency on lamp loadmax. 0.5 HzSwitching frequency on lamp loadmax. 0.0 HzSwitching frequency on lamp loadmax. 0.5 HzSwitching requency on lamp loadmax. 0.1 HzInternal limitation of inductive shut-off voltageL+ (-52 V)Short-circuit protection of outputs1 ANumber of operating cycle of relay outputs-Subthing capacity of contacts-	Rated load voltage	DC 20.428.8 V
Total current per group, horizontal configuration, 60°C4 ATotal current per group, vertical configuration4 AOutput current at signal "1", rated value0.5 ASignal logic outputSourcing outputOutput delay of "0" to "1"max. 100 µsOutput delay of "1" to "0"max. 350 µsMinimum load current-Lamp load5 WParallel switching of outputs for redundant control of a loadnot possibleParallel switching of outputs for increased powernot possibleActuation of digital inputyesSwitching frequency with inductive loadmax. 100 HzSwitching frequency on lamp loadmax. 10 HzInternal limitation of inductive shut-off voltageL+ (-52 V)Short-circuit protection of outputyes, electronicTrigger level1 ANumber of operating cycle of relay outputs-Switching corpacity of contacts-	Current consumption from load voltage L+ (without load)	10 mA
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Output current at signal "1", rated value0.5 ASignal logic outputSourcing outputOutput delay of "0" to "1"max. 100 µsOutput delay of "1" to "0"max. 350 µsMinimum load current-Lamp load5 WParallel switching of outputs for redundant control of a loadnot possibleParallel switching of outputs for increased powernot possibleActuation of digital inputyesSwitching frequency with resistive loadmax. 1000 HzSwitching frequency on lamp loadmax. 0.5 HzInternal limitation of inductive shut-off voltageL+ (-52 V)Short-circuit protection of outputs1 ANumber of operating cycle of relay outputs-Switching capacity of contacts-	Total current per group, horizontal configuration, 60°C	4 A
Signal logic outputSourcing outputOutput delay of "0" to "1"max. 100 µsOutput delay of "1" to "0"max. 350 µsMinimum load current-Lamp load5 WParallel switching of outputs for redundant control of a loadnot possibleParallel switching of outputs for increased powernot possibleActuation of digital inputyesSwitching frequency with resistive loadmax. 100 HzSwitching frequency with inductive loadmax. 0.5 HzSwitching frequency on lamp loadmax. 10 HzInternal limitation of inductive shut-off voltageL+ (-52 V)Short-circuit protection of outputyes, electronicTrigger level1 ANumber of operating cycle of relay outputs-Switching capacity of contacts-	Total current per group, vertical configuration	4 A
Output delay of "0" to "1"max. 100 µsOutput delay of "1" to "0"max. 350 µsMinimum load current-Lamp load5 WParallel switching of outputs for redundant control of a loadnot possibleParallel switching of outputs for increased powernot possibleActuation of digital inputyesSwitching frequency with resistive loadmax. 100 HzSwitching frequency on lamp loadmax. 0.5 HzInternal limitation of inductive shut-off voltageL+ (-52 V)Short-circuit protection of outputyes, electronicTrigger level1 ANumber of operating cycle of relay outputs-Switching capacity of contacts-	Output current at signal "1", rated value	0.5 A
Output delay of "1" to "0"max. 350 µsMinimum load current-Lamp load5 WParallel switching of outputs for redundant control of a loadnot possibleParallel switching of outputs for increased powernot possibleActuation of digital inputyesSwitching frequency with resistive loadmax. 1000 HzSwitching frequency with inductive loadmax. 0.5 HzSwitching frequency on lamp loadmax. 10 HzInternal limitation of inductive shut-off voltageL+ (-52 V)Short-circuit protection of outputyes, electronicTrigger level1 ANumber of operating cycle of relay outputs-Switching capacity of contacts-	Signal logic output	Sourcing output
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Parallel switching of outputs for increased powernot possibleActuation of digital inputyesSwitching frequency with resistive loadmax. 1000 HzSwitching frequency with inductive loadmax. 0.5 HzSwitching frequency on lamp loadmax. 10 HzInternal limitation of inductive shut-off voltageL+ (-52 V)Short-circuit protection of outputyes, electronicTrigger level1 ANumber of operating cycle of relay outputs-Switching capacity of contacts-	Lamp load	5 W
Actuation of digital inputyesSwitching frequency with resistive loadmax. 1000 HzSwitching frequency with inductive loadmax. 0.5 HzSwitching frequency on lamp loadmax. 10 HzInternal limitation of inductive shut-off voltageL+ (-52 V)Short-circuit protection of outputyes, electronicTrigger level1 ANumber of operating cycle of relay outputs-Switching capacity of contacts-	Parallel switching of outputs for redundant control of a load	not possible
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Switching frequency with inductive loadmax. 0.5 HzSwitching frequency on lamp loadmax. 10 HzInternal limitation of inductive shut-off voltageL+ (-52 V)Short-circuit protection of outputyes, electronicTrigger level1 ANumber of operating cycle of relay outputs-Switching capacity of contacts-	Actuation of digital input	yes
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Internal limitation of inductive shut-off voltage L+ (-52 V) Short-circuit protection of output yes, electronic Trigger level 1 A Number of operating cycle of relay outputs - Switching capacity of contacts -	Switching frequency with inductive load	max. 0.5 Hz
Short-circuit protection of output yes, electronic Trigger level 1 A Number of operating cycle of relay outputs - Switching capacity of contacts -	Switching frequency on lamp load	max. 10 Hz
Trigger level 1 A Number of operating cycle of relay outputs - Switching capacity of contacts -	Internal limitation of inductive shut-off voltage	L+ (-52 V)
Number of operating cycle of relay outputs - Switching capacity of contacts -	Short-circuit protection of output	yes, electronic
Switching capacity of contacts -	Trigger level	1 A
	Number of operating cycle of relay outputs	-
Output data size 1 Byte	Switching capacity of contacts	-
	Output data size	1 Byte
Status information, alarms, diagnostics	Status information, alarms, diagnostics	
Status display green LED per channel	Status display	green LED per channel
Interrupts no	Interrupts	no
Process alarm no	Process alarm	no

Diagnostic interrupt

no



Diagnostic functions	no
Diagnostics information read-out	none
Supply voltage display	green LED per group
Group error display	red SF LED
Channel error display	none
Isolation	
Between channels	-
Between channels of groups to	8
Between channels and backplane bus	yes
Insulation tested with	DC 500 V
Datasizes	
Input bytes	0
Output bytes	1
Parameter bytes	0
Diagnostic bytes	0
Housing	
Material	PPE / PA 6.6
Mounting	Profile rail 35 mm
Mechanical data	
Dimensions (WxHxD)	25.4 mm x 76 mm x 88 mm
Net weight	90 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	