

Data sheet

SM 153, CANopen slave (153-6CH00)

Technical data

Order no.	153-6CH00
Туре	SM 153, CANopen slave
General information	
Note	-
Features	CAN slave 8 (12) inputs 4 (8) outputs 4x11 clamps
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 inputs	
Number of inputs	8 (12
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 05 V
Input voltage for signal "1"	DC 1528.8 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	12
Number of simultaneously utilizable inputs vertical configuration	12
Input characteristic curve	IEC 61131-2, type 1
Initial data size	2 Byte
Technical data digital outputs	
Number of outputs	8 (4
Cable length, shielded	1000 m
Cable length, unshielded	600 m

YASKAWA VIPA CONTROLS

Rated load voltage	DC 24 V
Reverse polarity protection of rated load voltage	
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	1 Byte
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Status information, alarms, diagnostics	
Status information, alarms, diagnostics Status display	green LED per channel
	green LED per channel
Status display	
Status display Interrupts	no
Status display Interrupts Process alarm	no no
Status display Interrupts Process alarm Diagnostic interrupt	no no
Status display Interrupts Process alarm Diagnostic interrupt Diagnostic functions	no no no
Status display Interrupts Process alarm Diagnostic interrupt Diagnostic functions Diagnostics information read-out	no no no no possible
Status display Interrupts Process alarm Diagnostic interrupt Diagnostic functions Diagnostics information read-out Supply voltage display	no no no no possible yes
Status display Interrupts Process alarm Diagnostic interrupt Diagnostic functions Diagnostics information read-out Supply voltage display Group error display Channel error display	no no no no possible yes red SF LED
Status display Interrupts Process alarm Diagnostic interrupt Diagnostic functions Diagnostics information read-out Supply voltage display Group error display Channel error display Isolation	no no no no possible yes red SF LED none
Status display Interrupts Process alarm Diagnostic interrupt Diagnostic functions Diagnostics information read-out Supply voltage display Group error display Channel error display Isolation Between channels	no no no no possible yes red SF LED
Status display Interrupts Process alarm Diagnostic interrupt Diagnostic functions Diagnostics information read-out Supply voltage display Group error display Channel error display Isolation Between channels Between channels of groups to	no no no no possible yes red SF LED none
Status display Interrupts Process alarm Diagnostic interrupt Diagnostic functions Diagnostics information read-out Supply voltage display Group error display Channel error display Isolation Between channels Between channels and backplane bus	no no no no possible yes red SF LED none
Status display Interrupts Process alarm Diagnostic interrupt Diagnostic functions Diagnostics information read-out Supply voltage display Group error display Channel error display Isolation Between channels Between channels and backplane bus Between channels and power supply	no no no no possible yes red SF LED none
Status display Interrupts Process alarm Diagnostic interrupt Diagnostic functions Diagnostics information read-out Supply voltage display Group error display Channel error display Isolation Between channels Between channels of groups to Between channels and backplane bus Between channels and power supply Max. potential difference between circuits	no no no no possible yes red SF LED none
Status display Interrupts Process alarm Diagnostic interrupt Diagnostic functions Diagnostics information read-out Supply voltage display Group error display Channel error display Isolation Between channels Between channels of groups to Between channels and backplane bus Between channels and power supply Max. potential difference between inputs (Ucm)	no no no no no possible yes red SF LED none
Status display Interrupts Process alarm Diagnostic interrupt Diagnostic functions Diagnostics information read-out Supply voltage display Group error display Channel error display Isolation Between channels Between channels of groups to Between channels and backplane bus Between channels and power supply Max. potential difference between inputs (Ucm) Max. potential difference between Mana and Mintern (Uiso)	no no no no possible yes red SF LED none
Interrupts Process alarm Diagnostic interrupt Diagnostic functions Diagnostics information read-out Supply voltage display Group error display Channel error display Isolation Between channels Between channels of groups to Between channels and backplane bus Between channels and power supply Max. potential difference between inputs (Ucm) Max. potential difference between inputs and Mana (Ucm)	no no no no no possible yes red SF LED none
Interrupts Process alarm Diagnostic interrupt Diagnostic functions Diagnostics information read-out Supply voltage display Group error display Channel error display Isolation Between channels Between channels of groups to Between channels and backplane bus Between channels and power supply Max. potential difference between inputs (Ucm) Max. potential difference between inputs and Mana (Ucm)	no no no no no possible yes red SF LED none
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Racks, max - Modules per rack, max. - Number of digital modules, max. - Communication CANopen Tipe of interface CAN Connector Sub-0, 9-pin, male Topology Linear bus with bus termination at both ends Electrically isolated yes Number of participants, max. 128 Node addresses 1 - 99 1-rasmission speed, min. 10 kbits 1-rasmission speed, max. 1 Mbits Address range inputs, max. 2 Byte Address range outputs, max. 1 Byte Number of TxPDOs, max. 1 Mumber of TxPDOs, max. 1 Patasizes 2 Output bytes 2 Output bytes 1 Parameter bytes - Diagnostic bytes 9 Housing PPE / PA 6.6 Mounting PPFI le al 35 mm Mechanical data PPFI le al 35 mm Dimensions (WxHxD) 152.4 mm x 76 mm x 48 mm Net weight -	Hardware configuration	
Number of digital modules, max. - Number of analog modules, max. - Communication CANopen Type of interface CAN Connector Sub-D, 9-pin, male Topology Linear bus with bus termination at both ends Electrically isolated yes Number of participants, max. 126 Node addresses 1 - 99 Transmission speed, min. 10 kbit/s Transmission speed, max. 1 Mbit/s Address range inputs, max. 2 Byte Address range outputs, max. 1 Byte Number of TxPDOs, max. 1 Number of TxPDOs, max. 1 Input bytes 2 Output bytes 2 Output bytes 1 Parameter bytes - Diagnostic bytes - Housing PPE / PA 6.6 Mounting PPE / PA 6.6 Mounting PO de Ge Weight Including accessories - Gross weight - Environmental conditions - <th>Racks, max.</th> <th></th>	Racks, max.	
Number of analog modules, max. -	Modules per rack, max.	
Communication Fieldbus	Number of digital modules, max.	-
Fieldbus CANopen Type of interface CAN Connector Sub-D, 9-pin, male Topology Linear bus with bus termination at both ends Electrically isolated yes Number of participants, max. 126 Node addresses 1 - 99 Transmission speed, min. 10 kbit/s Transmission speed, max. 1 Mbit/s Address range inputs, max. 2 Byte Address range outputs, max. 1 Byte Number of TxPDOs, max. 1 Number of TxPDOs, max. 1 Number of TxPDOs, max. 1 Uput bytes 2 Output bytes 2 Output bytes 1 Parameter bytes - Diagnostic bytes - 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 266 g Weight including accessories -	Number of analog modules, max.	-
Type of interface CAN Connector Sub-D, 9-pin, male Topology Linear bus with bus termination at both ends Electrically isolated yes Number of participants, max. 126 Node addresses 1 - 99 Transmission speed, min. 10 kbit/s Transmission speed, max. 1 Mbit/s Address range inputs, max. 2 Byte Address range outputs, max. 1 Byte Number of TxPDOs, max. 1 Number of TxPDOs, max. 1 Datasizes 2 Output bytes 2 Output bytes 1 Parameter bytes - Diagnostic bytes - 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 266 g Weight including accessories - Gross weight - Environmental conditions -	Communication	
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Electrically isolated yes	Type of interface	CAN
Electrically isolated yes	Connector	Sub-D, 9-pin, male
Number of participants, max. 126 Node addresses 1 - 99 Transmission speed, min. 10 kbit/s Transmission speed, max. 1 Mbit/s Address range inputs, max. 2 Byte Address range outputs, max. 1 Byte Number of TxPDOs, max. 1 Number of RxPDOs, max. 1 Datasizes 2 Input bytes 2 Output bytes 1 Parameter bytes - Diagnostic bytes - 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 266 g Weight including accessories - Gross weight - Environmental conditions - Operating temperature 0 °C to 60 °C Storage temperature -25 °C to 70 °C Certifications -	Topology	Linear bus with bus termination at both ends
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Address range outputs, max. 1 Byte Number of TxPDOs, max. 1 Number of RxPDOs, max. 1 Datasizes Input bytes 2 Output bytes 1 Parameter bytes - Diagnostic bytes - 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 266 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	Transmission speed, max.	1 Mbit/s
Number of TxPDOs, max. 1 Number of RxPDOs, max. 1 Datasizes Input bytes 2 Output bytes 1 Parameter bytes - Diagnostic bytes - 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 266 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	Address range inputs, max.	2 Byte
Datasizes 1 Input bytes 2 Output bytes 1 Parameter bytes - Diagnostic bytes - Housing Waterial PPE / PA 6.6 Mounting Profile rail 35 mm Mechanical data Dimensions (WxHxD) 152.4 mm x 76 mm x 48 mm Net weight 266 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	Address range outputs, max.	1 Byte
Input bytes 2 Output bytes 1 Parameter bytes - Diagnostic bytes - 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 266 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	Number of TxPDOs, max.	1
Input bytes 2 Output bytes 1 Parameter bytes Diagnostic bytes 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 266 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	Number of RxPDOs, max.	1
Output bytes 1 Parameter bytes - Diagnostic bytes - 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 266 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	Datasizes	
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Diagnostic bytes - 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 266 g Weight including accessories - Gross weight - Environmental conditions Operating temperature 0 °C to 60 °C Storage temperature 0 °C to 70 °C Certifications UL certification yes	Output bytes	1
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 266 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	Parameter bytes	+
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Mechanical data Dimensions (WxHxD) 152.4 mm x 76 mm x 48 mm Net weight 266 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	Material	PPE / PA 6.6
Dimensions (WxHxD) 152.4 mm x 76 mm x 48 mm Net weight 266 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	Mounting	Profile rail 35 mm
Net weight Weight including accessories - Gross weight - Environmental conditions Operating temperature O °C to 60 °C Storage temperature -25 °C to 70 °C Certifications UL certification yes	Mechanical data	
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	Dimensions (WxHxD)	152.4 mm x 76 mm x 48 mm
Find the properties of the first section of the properties of the	Net weight	266 g
Environmental conditions Operating temperature 0 °C to 60 °C Storage temperature -25 °C to 70 °C Certifications UL certification yes	Weight including accessories	-
Operating temperature 0 °C to 60 °C Storage temperature -25 °C to 70 °C Certifications UL certification yes	Gross weight	
Storage temperature -25 °C to 70 °C Certifications UL certification yes	Environmental conditions	
Certifications UL certification yes	Operating temperature	0 °C to 60 °C
UL certification yes	Storage temperature	-25 °C to 70 °C
•	Certifications	
KC certification -	UL certification	yes
	KC certification	-