

Data sheet SM 031 - Analog input (031-1BB90)

Technical data

Current consumption from backplane bus85 mAPower loss1.1 WTechnical data analog inputs2Cable length, shielded200 mRated voltage power section supplyDC 24 VCurrent consumption from power section supply (without lod)30 mAVoltage inputs-Min. input resistance (voltage ranges)10 MOhmInput voltage rangese00 mV +80 mVOperational limit of voltage rangese0.25%Basic error limit voltage ranges with SFUe0.25%Basic error limit voltage ranges with SFUe0.25%Current noput resistance (vortranges)e0.25%Destruction limit of voltage rangese0.25%Basic error limit voltage ranges with SFUe0.46%Operational limit of current rangese0.25%Destruction limit voltagee0.25%Basic error limit voltagee0.25%Current inputs-Operational limit of current rangese0.25%Destruction limit voltagee0.25%Basic error limit voltagee0.25%Current inputs-Operational limit of current rangese0.25%Destruction limit current inputse0.25%Destruction limit de current rangese0.25%Basic error limit voltagee0.25%Destruction limit current inputse0.25%Destruction limit current ranges with SFUe1.26%Destruction limit current inputs (voltage)e1.26%Destruction limit current ranges with SFUe1.26%Destruction limit current ranges with SFU <th>Order no.</th> <th>031-1BB90</th>	Order no.	031-1BB90
General information           Note         -           Features         2x AI for the bit Voltage s0 mV+80 mV Voltage s0 mV+80 mV           Current consumption/power loss         85 mA           Current consumption from backplane bus         85 mA           Power loss         1.1 W           Technical data analog inputs         2           Number of inputs         2           Cable longth, shielded         200 m           Rated voltage power section supply         DC 24 V           Current consumption from power section supply (without load)         30 mA           Voltage inputs         -           Min. input resistance (voltage ranges)         10 MOhm           Input voltage ranges         40.3%           Operational limit of voltage ranges with SFU         40.3%           Operational limit of voltage ranges with SFU         40.6%           Destruction limit voltage         -           Gurrent ranges         -           Operational limit of uortent ranges         -           Operational limit of current ranges         -           Destruction limit of current ranges         -           Destruction limit of current ranges with SFU         -           Destruction limit current ranges with SFU         -	Туре	SM 031 - Analog input
Note         -           Features         2x A Beatures         2x A Beatures           Features         2x A Beatures         2x A Beatures           Current consumption/power loss         55 mA           Power loss         1.1 W           Technical data analog inputs         2           Sumber of inputs         2           Cable length, shielded         200 m           Rated voltage power section supply         DC 24 V           Current consumption from power section supply (without load)         30 mA           Number of inputs         -           Min. input resistance (voltage ranges)         10 MOhm           Input voltage ranges         400 mV +80 mV           Operational limit of voltage ranges with SFU         40.3%           Destruction limit voltage ranges with SFU         40.05%           Basic error limit voltage ranges with SFU         40.05%           Destruction limit voltage ranges with SFU         -           Querational limit of current ranges         -           Raise error limit voltage ranges with SFU         -           Destruction limit voltage ranges with SFU         -           Destruction limit voltage ranges with SFU         -           Destruction limit voltage ranges with SFU         -	Module ID	0403 1543
Features     2x AI 16 Bit 16 Bit 10 Bit 2000       Current consumption/power loss       Current consumption from backplane bus     85 mA       Power loss     1.1 W       Technical data analog inputs     2       Cable length, shielded     200 m       Read vottage power section supply     DC 24 V       Current consumption from power section supply (without load)     30 mA       Votage inputs     -       Min. input resistance (voltage ranges     80 mV +80 mV       Operational limit of voltage ranges     40.3%       Operational limit of voltage ranges with SFU     2.0.1%       Basic error limit voltage ranges with SFU     0.05%       Destruction limit voltage ranges with SFU     0.05%       Destruction limit voltage ranges with SFU     0.05%       Basic error limit voltage ranges with SFU     0.05%       Destruction limit voltage ranges with SFU     0.05%       Destruction limit voltage ranges with SFU     0.05%       Basic error limit voltage ranges with SFU     -       Basic error limit voltage ranges with SFU     -       Basic error limit voltage ranges     -       Basic error limit voltage ranges     -       Basic error limit current ranges     -       Basic error limit voltage ranges     -       Destruction limit current ranges     - <t< td=""><td>General information</td><td></td></t<>	General information	
16 Bit brown with the set on the	Note	-
Current consumption from backplane bus85 mAPower loss1.1 WTechnical data analog inputs2Cable length, shielded200 mRated voltage power section supplyDC 24 VCurrent consumption from power section supply (without lod)30 mAVoltage inputs-Min. input resistance (voltage ranges)10 MOhmInput voltage rangese00 mV +80 mVOperational limit of voltage rangese0.25%Basic error limit voltage ranges with SFUe0.25%Basic error limit voltage ranges with SFUe0.25%Current noput resistance (vortranges)e0.25%Destruction limit of voltage rangese0.25%Basic error limit voltage ranges with SFUe0.46%Operational limit of current rangese0.25%Destruction limit voltagee0.25%Basic error limit voltagee0.25%Current inputs-Operational limit of current rangese0.25%Destruction limit voltagee0.25%Basic error limit voltagee0.25%Current inputs-Operational limit of current rangese0.25%Destruction limit current inputse0.25%Destruction limit de current rangese0.25%Basic error limit voltagee0.25%Destruction limit current inputse0.25%Destruction limit current ranges with SFUe1.26%Destruction limit current inputs (voltage)e1.26%Destruction limit current ranges with SFUe1.26%Destruction limit current ranges with SFU <td>Features</td> <td>16 Bit Voltage -80 mV…+80 mV</td>	Features	16 Bit Voltage -80 mV…+80 mV
Power loss1.1 WTechnical data analog inputsNumber of inputs2Cable length, shielded200 mRated voltage power section supplyDC 24 VCurrent consumption from power section supply (without load)30 mAVoltage inputs-Min. input resistance (voltage range)10 MOhmInput voltage ranges+80 mV +80 mVOperational limit of voltage ranges±0.3%Operational limit of voltage ranges±0.1%Basic error limit voltage ranges with SFU±0.1%Basic error limit voltage ranges with SFU±0.05%Destruction limit voltage ranges±0.25%Basic error limit voltage ranges-Max. input resistance (current range)-Input current ranges-Max. input resistance (current range)-Input current ranges-Input current ranges-Operational limit of current ranges-Radical error limit current ranges-Radical error limit current ranges-Basic error limit current ranges-Destruction limit current ranges-Radical error limit current ranges-Resistance inputs-Resistance inputs-Resistance inputs-Basic error limit inf of resistor ranges-Operational limit of resistor ranges-Operational limit of resistor ranges-Operational limit of resistor ranges-Destruction limit of resistor ranges- <td< td=""><td>Current consumption/power loss</td><td></td></td<>	Current consumption/power loss	
Technical data analog inputs           Number of inputs         2           Cable length, shielded         200 m           Rated voltage power section supply         DC 24 V           Current consumption from power section supply (without load)         30 mA           Voltage inputs         -           Min. input resistance (voltage range)         10 MOhm           Input voltage ranges         +80 mV           Operational limit of voltage ranges         ±0.3%           Operational limit of voltage ranges with SFU         ±0.1%           Basic error limit voltage ranges with SFU         ±0.05%           Destruction limit voltage ranges with SFU         ±0.05%           Destruction limit voltage ranges with SFU         ±0.05%           Max. input resistance (current range)         -           Max. input resistance (current ranges)         -           Input current ranges         -           Operational limit of current ranges         -           Operational limit of current ranges         -           Operational limit of current ranges with SFU         -           Basic error limit current ranges with SFU         -           Destruction limit current ranges with SFU         -           Destruction limit current ranges with SFU         -           <	Current consumption from backplane bus	85 mA
Number of inputs2Cable length, shielded200 mRated voltage power section supplyDC 24 VCurrent consumption from power section supply (without load)30 mAVoltage inputs-Min. input resistance (voltage range)10 MOhmInput voltage ranges-80 mV +80 mVOperational limit of voltage ranges±0.3%Operational limit of voltage ranges with SFU±0.1%Basic error limit voltage ranges with SFU±0.05%Destruction limit voltage ranges with SFU±0.05%Destruction limit voltage ranges with SFU=0.25%Basic error limit voltage ranges with SFU=0.25%Destruction limit voltage ranges with SFU=0.25%Destruction limit voltagemax. 20VCurrent ranges-Operational limit of current ranges-Operational limit of current ranges-Operational limit of current ranges with SFU-Operational limit of current ranges with SFU-Operational limit of current ranges-Operational limit of current ranges with SFU-Destruction limit of resistor ranges-Operational limit of resisto	Power loss	1.1 W
Cable length, shielded200 mRated voltage power section supplyDC 24 VCurrent consumption from power section supply (without load)30 mAVoltage inputs-Min. input resistance (voltage range)10 MOhmInput voltage ranges-Operational limit of voltage ranges-Operational limit of voltage ranges-Saice error limit voltage ranges with SFU±0.1%Basic error limit voltage ranges±0.25%Basic error limit voltage ranges±0.25%Current inputs-Current range±0.05%Destruction limit of current range)-Input resistance (current range)-Input resistance (current range)-Input resistance (current ranges)-Operational limit of current ranges-Operational limit of current ranges-Operational limit of current ranges with SFU-Basic error limit current ranges with SFU-Operational limit of current ranges-Operational limit of current ranges-Radical error limit current ranges with SFU-Destruction limit current ranges with SFU-Destruction limit current ranges with SFU-Resistance inputs-Resistance inputs-Resistance ranges-Operational limit of resistor ranges-Operational limit of resistor ranges-Operational limit of resistor ranges with SFU-Seistance run limit with SFU-	Technical data analog inputs	
Rated voltage power section supplyDC 24 VCurrent consumption from power section supply (without load)30 mAVoltage inputs-Min. input resistance (voltage range)10 MOhmInput voltage ranges-80 mV +80 mVOperational limit of voltage ranges±0.3%Operational limit of voltage ranges with SFU±0.1%Basic error limit voltage ranges with SFU±0.05%Destruction limit voltage ranges with SFU±0.05%Destruction limit voltage ranges±0.05%Destruction limit voltage ranges-Max. input resistance (current range)-Max. input resistance (current ranges)-Operational limit of current ranges-Operational limit of current ranges-Operational limit of current ranges-Operational limit of current ranges-Radical error limit current ranges-Radical error limit current ranges with SFU-Destruction limit current ranges-Radical error limit current ranges-Radical error limit current ranges with SFU-Destruction limit current ranges-Resistance inputs-Resistance inputs-Operational limit of resistor ranges-Operational limit of resistor ranges-Operational limit for resistor ranges-Operational limit for resistor ranges-Operational limit for resistor ranges-Operational limit for resistor ranges-Basic error limit- <td>Number of inputs</td> <td>2</td>	Number of inputs	2
Current consumption from power section supply (without load)30 mAVoltage inputs-Min. input resistance (voltage ranges)10 MOhmInput voltage ranges+80 mVOperational limit of voltage ranges±0.3%Operational limit of voltage ranges with SFU±0.1%Basic error limit voltage ranges with SFU±0.05%Destruction limit voltage ranges with SFU±0.05%Destruction limit voltage ranges with SFU±0.05%Destruction limit voltage rangesmax. 20VCurrent inputs-Max. input resistance (current range)-Input current ranges-Operational limit of current ranges-Radical error limit current ranges with SFU-Destruction limit current ranges with SFU-Destruction limit current ranges-Resistance inputs-Resistance inputs-Operational limit of resistor ranges-Operational limit of resistor ranges-Basi	Cable length, shielded	200 m
Voltage inputs-Min. input resistance (voltage range)10 MOhmInput voltage ranges-80 mV +80 mVOperational limit of voltage ranges±0.3%Operational limit of voltage ranges with SFU±0.1%Basic error limit voltage ranges with SFU±0.05%Destruction limit voltage ranges with SFU±0.05%Destruction limit voltage ranges-Max. input resistance (current range)-Input current ranges-Operational limit of current ranges-Basic error limit current ranges-Basic error limit current ranges-Destruction limit current ranges-Basic error limit current ranges with SFU-Destruction limit current ranges with SFU-Destruction limit current inputs (voltage)-Destruction limit current inputs (electrical current)-Resistance inputs-Resistance inputs-Operational limit of resistor ranges-Operational limit of resistor ranges with SFU-Destruction limit current inputs (SFU-Operational limit of resistor ranges with SFU-Operational limit of resistor ranges with SFU<	Rated voltage power section supply	DC 24 V
In. input resistance (voltage range)10 MOhmInput voltage ranges-80 mV +80 mVOperational limit of voltage ranges±0.3%Operational limit of voltage ranges with SFU±0.1%Basic error limit voltage ranges with SFU±0.05%Destruction limit voltage ranges with SFU±0.05%Destruction limit voltage ranges with SFU±0.05%Destruction limit voltage ranges-Max. input resistance (current range)-Input current ranges-Operational limit of current ranges-Radical error limit current ranges with SFU-Destruction limit current inputs (voltage)-Destruction limit current inputs (voltage)-Operational limit of resistor ranges-Operational limit of resistor ranges with SFU-Basic error limit with SFU-Destruction limit resistance inputs-Basic	Current consumption from power section supply (without load)	30 mA
Input voltage ranges-80 mVOperational limit of voltage ranges±0.3%Operational limit of voltage ranges with SFU±0.1%Basic error limit voltage ranges with SFU±0.25%Basic error limit voltage ranges with SFU±0.05%Destruction limit voltage ranges with SFU±0.05%Destruction limit voltage ranges±0.25%Basic error limit voltage ranges±0.05%Destruction limit voltage ranges±0.05%Destruction limit voltage ranges-Max. input resistance (current range)-Input current ranges-Operational limit of current ranges-Operational limit of current ranges-Operational limit of current ranges with SFU-Basic error limit current ranges with SFU-Destruction limit current ranges with SFU-Destruction limit current ranges with SFU-Destruction limit current inputs (voltage)-Destruction limit current inputs (electrical current)-Resistance inputs-Operational limit of resistor ranges-Operational limit of resistor ranges with SFU-Destruction limit tor resistor ranges with SFU-Destruction limit tor resistor ranges with SFU-Destructional limit of resistor ranges with SFU-Destruction limit tor resistor ranges with SFU-	Voltage inputs	-
Determinal limit of voltage ranges±0.3%Operational limit of voltage ranges with SFU±0.1%Basic error limit voltage ranges±0.25%Basic error limit voltage ranges with SFU±0.05%Destruction limit voltagemax. 20VCurrent inputs-Max. input resistance (current range)-Input current ranges-Operational limit of ourrent ranges-Operational limit of current ranges with SFU-Basic error limit current ranges with SFU-Destruction limit current inputs (voltage)-Destruction limit current inputs (voltage)-Destruction limit current inputs (voltage)-Operational limit of resistor ranges-Operational limit of resistor ranges-Basic error limit with SFU-Basic error limit with SFU-Destruction limit resistance inputs-Basic error limit with SFU-Destruction limit resistance inputs-Resista	Min. input resistance (voltage range)	10 MOhm
Operational limit of voltage ranges with SFU±0.1%Basic error limit voltage ranges±0.25%Basic error limit voltage ranges with SFU±0.05%Destruction limit voltagemax. 20VCurrent inputs-Max. input resistance (current range)-Input current ranges-Operational limit of current ranges with SFU-Basic error limit current ranges with SFU-Operational limit of current ranges with SFU-Basic error limit current ranges with SFU-Basic error limit current ranges with SFU-Basic error limit current ranges with SFU-Destruction limit current ranges with SFU-Basic error limit current ranges with SFU-Destruction limit current ranges with SFU-Destruction limit current inputs (voltage)-Destruction limit current inputs (electrical current)-Resistance inputs-Operational limit of resistor ranges-Operational limit of resistor ranges-Operational limit of resistor ranges with SFU-Basic error limit-Basic error limit with SFU-Basic error limit with SFU-Destruction limit resistance inputs-Basic error limit with SFU-Basic error limit with SFU-	Input voltage ranges	-80 mV +80 mV
Basic error limit voltage ranges±0.25%Basic error limit voltage ranges with SFU±0.05%Destruction limit voltagemax. 20VCurrent inputs-Max. input resistance (current range)-Input current ranges-Operational limit of current ranges-Operational limit of current ranges with SFU-Basic error limit current ranges with SFU-Basic error limit current ranges with SFU-Destruction limit current inputs (voltage)-Destruction limit current inputs (selectrical current)-Resistance ranges-Operational limit of resistor ranges with SFU-Basic error limit for seistor ranges with SFU-Operational limit of resistor ranges-Operational limit of resistor ranges with SFU-Basic error limit with SFU-Basic error limit with SFU-Destruction limit resistance inputs-Basic error limit with SFU-Basic error limit with SFU <td>Operational limit of voltage ranges</td> <td>±0.3%</td>	Operational limit of voltage ranges	±0.3%
Basic error limit voltage ranges with SFU±0.05%Destruction limit voltagemax. 20VCurrent inputs-Max. input resistance (current range)-Input current ranges-Operational limit of current ranges with SFU-Basic error limit current ranges with SFU-Basic error limit current ranges-Operational limit of current ranges with SFU-Basic error limit current ranges with SFU-Destruction limit current inputs (voltage)-Destruction limit current inputs (selectrical current)-Resistance ranges-Operational limit of resistor ranges-Operational limit of resistor ranges with SFU-Basic error limit-Operational limit of resistor ranges with SFU-Basic error limit with SFU-Basic error limit with SFU-Destruction limit resistance inputs-Basic error limit with SFU-Destruction limit resistance inputs-Resistance thermometer inputs-Resistance thermometer ranges-Resistance thermometer ranges-Resistance thermometer ranges-Resistance thermometer ranges-Resistance thermometer ranges	Operational limit of voltage ranges with SFU	±0.1%
Destruction limit voltagemax. 20VCurrent inputs-Max. input resistance (current range)-Input current ranges-Operational limit of current ranges-Operational limit of current ranges with SFU-Basic error limit current ranges-Radical error limit current ranges with SFU-Destruction limit current ranges with SFU-Destruction limit current inputs (voltage)-Destruction limit current inputs (electrical current)-Resistance ranges-Operational limit of resistor ranges with SFU-Destruction limit of resistor ranges-Resistance ranges-Operational limit of resistor ranges-Operational limit of resistor ranges with SFU-Basic error limit-Operational limit of resistor ranges-Operational limit of resistor ranges-Operational limit of resistor ranges-Operational limit of resistor ranges with SFU-Basic error limit-Basic error limit with SFU-Destruction limit resistance inputs-Resistance thermometer inputs-Resistance thermometer ranges-Resistance thermometer ranges <td< td=""><td>Basic error limit voltage ranges</td><td>±0.25%</td></td<>	Basic error limit voltage ranges	±0.25%
Current inputs-Max. input resistance (current range)-Input current ranges-Operational limit of current ranges-Operational limit of current ranges with SFU-Basic error limit current ranges with SFU-Basic error limit current ranges with SFU-Destruction limit current ranges with SFU-Destruction limit current inputs (voltage)-Destruction limit current inputs (voltage)-Resistance inputs-Resistance ranges-Operational limit of resistor ranges with SFU-Destruction limit of resistor ranges-Resistance ranges-Operational limit of resistor ranges-Basic error limit-Basic error limit with SFU-Destruction limit resistance inputs-Basic error limit with SFU-Basic error limit with SFU-Basic error limit with SFU-Basic error limit with SFU-Basic error limit tersistance inputs-Basic error limit with SFU-Basic error limit with SFU-Basic error limit tersistance inputs-Resistance thermometer inputs-Resistance thermometer ranges-Basic ertor limit resistance inputs-Basic ertor limit terror limit space-Basic ertor limit with SFU-Basic ertor limit with SFU-Basic ertor limit with SFU-Basic ertor limit resistance inputs	Basic error limit voltage ranges with SFU	±0.05%
Max. input resistance (current range)-Input current ranges-Operational limit of current ranges-Operational limit of current ranges with SFU-Basic error limit current ranges with SFU-Radical error limit current ranges with SFU-Destruction limit current inputs (voltage)-Destruction limit current inputs (electrical current)-Resistance inputs-Operational limit of resistor ranges-Operational limit of resistor ranges with SFU-Basic error limit-Basic error limit with SFU-Destruction limit resistance inputs-Resistance thermometer inputs-Resistance thermometer ranges-Resistance ther	Destruction limit voltage	max. 20V
Input current ranges-Operational limit of current ranges-Operational limit of current ranges with SFU-Basic error limit current ranges-Radical error limit current ranges with SFU-Destruction limit current inputs (voltage)-Destruction limit current inputs (electrical current)-Resistance inputs-Resistance ranges-Operational limit of resistor ranges with SFU-Destruction limit of resistor ranges-Operational limit of resistor ranges-Operational limit of resistor ranges-Basic error limit-Basic error limit with SFU-Destruction limit resistance inputs-Resistance thermometer inputs-Resistance thermometer inputs-Resistance thermometer ranges-Resistance thermometer ranges-	Current inputs	-
Operational limit of current ranges-Operational limit of current ranges with SFU-Basic error limit current ranges-Radical error limit current ranges with SFU-Destruction limit current inputs (voltage)-Destruction limit current inputs (electrical current)-Resistance inputs-Resistance ranges-Operational limit of resistor ranges-Operational limit of resistor ranges-Operational limit of resistor ranges-Operational limit of resistor ranges-Basic error limit-Basic error limit-Basic error limit with SFU-Destruction limit resistance inputs-Basic error limit with SFU-Basic error limit with SFU-Destruction limit resistance inputs-Resistance thermometer inputs-Resistance thermometer ranges-	Max. input resistance (current range)	-
Operational limit of current ranges with SFU-Basic error limit current ranges-Radical error limit current ranges with SFU-Destruction limit current inputs (voltage)-Destruction limit current inputs (electrical current)-Resistance inputs-Resistance ranges-Operational limit of resistor ranges with SFU-Operational limit of resistor ranges-Operational limit of resistor ranges-Basic error limit-Basic error limit with SFU-Basic error limit with SFU-Destruction limit resistance inputs-Resistance thermometer inputs-Resistance thermometer ranges-	Input current ranges	-
Provide Basic error limit current ranges-Radical error limit current ranges with SFU-Destruction limit current inputs (voltage)-Destruction limit current inputs (electrical current)-Resistance inputs-Resistance ranges-Operational limit of resistor ranges with SFU-Operational limit of resistor ranges with SFU-Basic error limit-Basic error limit-Basic error limit with SFU-Destruction limit resistance inputs-Resistance thermometer inputs-Resistance thermometer ranges-	Operational limit of current ranges	-
Radical error limit current ranges with SFU-Destruction limit current inputs (voltage)-Destruction limit current inputs (electrical current)-Resistance inputs-Resistance ranges-Operational limit of resistor ranges with SFU-Basic error limit-Basic error limit with SFU-Destruction limit resistance inputs-Resistance thermometer inputs-Resistance thermometer ranges-Resistance thermometer ranges-Resistance thermometer ranges-Resistance thermometer ranges-Resistance thermometer ranges-Resistance thermometer ranges-	Operational limit of current ranges with SFU	-
Destruction limit current inputs (voltage)-Destruction limit current inputs (electrical current)-Resistance inputs-Resistance ranges-Operational limit of resistor ranges-Operational limit of resistor ranges with SFU-Basic error limit-Basic error limit with SFU-Destruction limit resistance inputs-Resistance thermometer ranges-Resistance thermometer ranges-Resistan	Basic error limit current ranges	-
Destruction limit current inputs (electrical current)-Resistance inputs-Resistance ranges-Operational limit of resistor ranges-Operational limit of resistor ranges with SFU-Basic error limit-Basic error limit with SFU-Destruction limit resistance inputs-Resistance thermometer ranges-Resistance thermometer ranges-	Radical error limit current ranges with SFU	-
Resistance inputs-Resistance ranges-Operational limit of resistor ranges-Operational limit of resistor ranges with SFU-Basic error limit-Basic error limit with SFU-Destruction limit resistance inputs-Resistance thermometer inputs-Resistance thermometer ranges-	Destruction limit current inputs (voltage)	-
Resistance ranges-Operational limit of resistor ranges-Operational limit of resistor ranges with SFU-Basic error limit-Basic error limit with SFU-Destruction limit resistance inputs-Resistance thermometer ranges-Resistance thermometer ranges-	Destruction limit current inputs (electrical current)	-
Operational limit of resistor ranges-Operational limit of resistor ranges with SFU-Basic error limit-Basic error limit with SFU-Destruction limit resistance inputs-Resistance thermometer ranges-Resistance thermometer ranges-	Resistance inputs	-
Operational limit of resistor ranges with SFU       -         Basic error limit       -         Basic error limit with SFU       -         Destruction limit resistance inputs       -         Resistance thermometer ranges       -	Resistance ranges	-
Basic error limit-Basic error limit with SFU-Destruction limit resistance inputs-Resistance thermometer inputs-Resistance thermometer ranges-	Operational limit of resistor ranges	-
Basic error limit with SFU     -       Destruction limit resistance inputs     -       Resistance thermometer inputs     -       Resistance thermometer ranges     -	Operational limit of resistor ranges with SFU	-
Destruction limit resistance inputs     -       Resistance thermometer inputs     -       Resistance thermometer ranges     -	Basic error limit	-
Resistance thermometer inputs     -       Resistance thermometer ranges     -	Basic error limit with SFU	-
Resistance thermometer ranges -	Destruction limit resistance inputs	-
	Resistance thermometer inputs	-
Operational limit of resistance thermometer ranges	Resistance thermometer ranges	-
	Operational limit of resistance thermometer ranges	-

## **YASKAWA**

Operational limit of resistance thermometer ranges with SFU -

Basic error limit thermonesistor ranges with SFU         -           Basic error limit thermonesistor ranges with SFU         -           Thermocouple inputs         yes           Thermocouple ranges         Yep B Yep	Operational limit of resistance thermometer ranges with SFU	-
Destruction limit resistance thermometer inputs         -           Thermocouple inputs         yes           Thermocouple ranges         type B VPOP E VPOP E VPOP E VPOP E VPOP E VPOP E           Thermocouple ranges         Type C, L, T, J, K, N: ±2.5K/ Type B, C, R, S: ±8.0K           Operational limit of thermocouple ranges with SFU         Type C, L, T, J, K, N: ±1.5K/ Type B, C, R, S: ±4.0K           Basic error limit thermocouple ranges with SFU         Type C, L, T, J, K, N: ±1.5K/ Type B, C, R, S: ±3.0K           Destruction limit thermocouple ranges with SFU         Type C, L, T, J, K, N: ±1.0K / Type B, C, R, S: ±3.0K           Destruction limit thermocouple ranges with SFU         Type C, L, T, J, K, N: ±1.0K / Type B, C, R, S: ±3.0K           Destruction limit thermocouple ranges with SFU         Type C, L, T, J, K, N: ±1.0K / Type B, C, R, S: ±3.0K           Destruction limit thermocouple ranges with SFU         Type C, L, T, J, K, N: ±1.0K / Type B, C, R, S: ±3.0K           Destruction limit thermocouple ranges with SFU         Type C, L, T, J, K, N: ±1.0K / Type B, C, R, S: ±3.0K           Destruction compensation         yes           External temperature compensation         yes           Temperature error internal compensation         yes           Temperature error internation, alarms, diagnostics         Sigma-Detta           Basic conversion time         4.2	Basic error limit thermoresistor ranges	-
Thermocouple inputs         yes           Thermocouple ranges         type B type D type	Basic error limit thermoresistor ranges with SFU	-
Thermodouple ranges         type B bype C           Operational limit of thermocouple ranges         Type E, L, T, J, K, N: ±2.5K / Type B, C, R, S: ±3.0K           Operational limit of thermocouple ranges         Type E, L, T, J, K, N: ±2.5K / Type B, C, R, S: ±4.0K           Basic error limit thermocouple ranges with SFU         Type E, L, T, J, K, N: ±2.0K / Type B, C, R, S: ±3.0K           Deperational limit of thermocouple ranges with SFU         Type E, L, T, J, K, N: ±2.0K / Type B, C, R, S: ±3.0K           Destruction limit thermocouple ranges with SFU         Type E, L, T, J, K, N: ±0.0K / Type B, C, R, S: ±3.0K           Destruction limit thermocouple ranges         max. 20V           Programmable tomperature compensation         yes           External temperature compensation         yes           Temperature error internal compensation         yes           Temperature error internal compensation         yes           Noise suppression for frequency         >o00dB at 50Hz (UCM-foty)           Status display         yes           Noise suppression for frequency         yes           Process atam         yes, parameterizable           Diagnostic functions         yes, parameterizable           Diagnostic functions         yes           Diagnostic functions         yes           Diagnostic functions         yes           Diagno	Destruction limit resistance thermometer inputs	-
ivpe I         ivpe J           Vipe I         ivpe I           Vipe I         Type E, L, T, J, K, N: ±15K / Type B, C, R, S: ±4.0K           Basic error limit thermocouple ranges with SFU         Type E, L, T, J, K, N: ±1.0K / Type B, C, R, S: ±3.0K           Destruction limit thermocouple ranges with SFU         Type E, L, T, J, K, N: ±1.0K / Type B, C, R, S: ±3.0K           Destruction limit thermocouple ranges         max. 20V           Programmable temperature compensation         yes           Lennal temperature compensation         yes           Temperature error internal compensation         yes           Resolution in bi         16           Measurement principle         Sigma-Detta           Basic conversion time         4.2	Thermocouple inputs	yes
Operational limit of thermocouple ranges with SFU         Type E, L, T, J, K, N: ±1.5K/ Type B, C, R, S: ±4.0K           Basic error limit thermocouple ranges with SFU         Type E, L, T, J, K, N: ±2.0K / Type B, C, R, S: ±7.0K           Basic error limit thermocouple ranges with SFU         Type E, L, T, J, K, N: ±1.0K / Type B, C, R, S: ±3.0K           Destruction limit thermocouple inputs         max.20V           Programmable temperature compensation         yes           External temperature compensation         yes           Temperature compensation         yes           Temperature compensation         yes           Resolution in bit         16           Measurement principle         Sigma-Delta           Basic conversion time         4.2324.1 ms (50 Hz) 3.8270.5 ms (60 Hz) per channel           Noise suppression for frequency         >900dB at 50Hz (UCM<10V)	Thermocouple ranges	type E type J type K type L type N type R type S type T
Basic error limit thermocouple ranges     Type E, L, T, J, K, N: ±2.0K / Type B, C, R, S: ±7.0K       Basic error limit thermocouple ranges with SFU     Type E, L, T, J, K, N: ±1.0K / Type B, C, R, S: ±3.0K       Destruction limit thermocouple inputs     max. 20V       Programmable temperature compensation     yes       Intenal temperature compensation     yes       Temperature compensation     yes       Temperature compensation     yes       Temperature error internal compensation     1 K       Technical unit of temperature measurement     °C, °F, K       Resolution in bit     16       Measurement principle     Sigma-Delta       Basic onversion for frequency     >9008 at 50Hz (UCM<10V)	Operational limit of thermocouple ranges	Type E, L, T, J, K, N: ±2.5K / Type B, C, R, S: ±8.0K
Basic error limit thermocouple ranges with SFU         Type E, L, T, J, K, N: ±1.0K/ Type B, C, R, S: ±3.0K           Destruction limit thermocouple inputs         max. 20V           Programmable temperature compensation         yes           External temperature compensation         yes           Internal temperature compensation         yes           Temperature error internal compensation         1K           Resolution in bit         16           Measurement principle         Sigma-Delta           Basic conversion time         4.2324.1 ms (50 Hz) 3.8270.5 ms (60 Hz) per channel           Noise suppression for frequency         >90dB at 50Hz (UCM<10V)	Operational limit of thermocouple ranges with SFU	Type E, L, T, J, K, N: ±1.5K / Type B, C, R, S: ±4.0K
Destruction limit thermocouple inputs         max. 20V           Programmable temperature compensation         yes           External temperature compensation         yes           Temperature error internal compensation         1 K           Technical unit of temperature measurement         °C. °F. K           Resolution in bit         16           Measurement principle         Sigma-Delta           Basic conversion time         4.2324.1 ms (50 Hz) 3.8270.5 ms (60 Hz) per channel           Noise suppression for frequency         >90dB at 50Hz (UCM<10V)	Basic error limit thermocouple ranges	Type E, L, T, J, K, N: ±2.0K / Type B, C, R, S: ±7.0K
Programmable temperature compensation         yes           External temperature compensation         yes           Temperature compensation         1 K           Temperature error internal compensation         1 K           Technical unit of temperature measurement         °C, °F, K           Resolution in bit         16           Measurement principle         Sigma-Detta           Basic conversion time         4.2324.1 rms (50 Hz) 3.8270.5 rms (60 Hz) per channel           Noise suppression for frequency         >90dB at 50Hz (UCM<10V)	Basic error limit thermocouple ranges with SFU	Type E, L, T, J, K, N: ±1.0K / Type B, C, R, S: ±3.0K
zetranal temperature compensation         yes           Internal temperature compensation         1 K           Temperature error internal compensation         1 K           Technical unit of temperature measurement         °C, °F, K           Resolution in bit         16           Measurement principle         Sigma-Delta           Basic conversion time         4.2324.1 ms (50 Hz) 3.8270.5 ms (60 Hz) per channel           Noise suppression for frequency         >900B at 50Hz (UCM<10V)	Destruction limit thermocouple inputs	max. 20V
Internal temperature compensation         yes           Temperature error internal compensation         1 K           Technical unit of temperature measurement         *C, *F, K           Resolution in bit         16           Measurement principle         Sigma-Delta           Basic conversion time         4.2324.1 ms (50 Hz) 3.8270.5 ms (60 Hz) per channel           Noise suppression for frequency         >90dB at 50Hz (UCM<10V)	Programmable temperature compensation	yes
Temperature error internal compensation       1 K         Technical unit of temperature measurement       °C, °F, K         Resolution in bit       16         Measurement principle       Sigma-Delta         Basic conversion time       4.2324.1 ms (50 Hz) 3.8270.5 ms (60 Hz) per channel         Noise suppression for frequency       >90dB at 50Hz (UCM<10V)	External temperature compensation	yes
Technical unit of temperature measurement°C, °F, KResolution in bit16Measurement principleSigma-DeltaBasic conversion time4.2324.1 ms (50 Hz) 3.8270.5 ms (60 Hz) per channelNoise suppression for frequency>90dB at 50Hz (UCM<10V)	Internal temperature compensation	yes
Resolution in bit16Measurement principleSigma-DeltaBasic conversion time4.2324.1 ms (50 Hz) 3.8270.5 ms (60 Hz) per channelNoise suppression for frequency>90dB at 50Hz (UCM<10V)	Temperature error internal compensation	1 K
Measurement principleSigma-DeltaBasic conversion time4.2324.1 ms (50 Hz) 3.8270.5 ms (60 Hz) per channelNoise suppression for frequency>90dB at 50Hz (UCM<10V)	Technical unit of temperature measurement	°C, °F, K
Basic conversion time4.2324.1 ms (50 Hz) 3.8270.5 ms (60 Hz) per channelNoise suppression for frequency>90dB at 50Hz (UCM<10V)	Resolution in bit	16
Noise suppression for frequency>90dB at 50Hz (UCM<10V)Status information, alarms, diagnosticsStatus displayyesInterruptsyes, parameterizableProcess alarmyes, parameterizableDiagnostic interruptyes, parameterizableDiagnostic interruptyesDiagnostic interruptyesModule error displaygreen LEDModule error displayred LED per channelIsolationsesBetween channels-Between channels of groups to-Between channels and power supply-Max, potential difference between niputs (Ucm)DC 75 V/AC 50 VMax, potential difference between inputs and Mana (Ucm)-Max, potential difference between niputs and Mana (Ucm)-Max, potential difference between Nintern and outputs-Max, potential difference between Nintern and outputs-Notal between the tote withDC 500 V	Measurement principle	Sigma-Delta
Status information, alarms, diagnosticsStatus displayyesInterruptsyes, parameterizableProcess alarmyes, parameterizableDiagnostic interruptyes, parameterizableDiagnostic interruptyesDiagnostic interruptpossibleModule stategreen LEDModule error displayred LEDChannel error displayred LEDBetween channels-Between channels of groups to-Between channels and backplane busyesBetween channels and power supply-Max. potential difference between inputs (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Minterr (Uiso)-Max. potential difference between inputs and Mintern (Uiso)C 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between Mintern and outputs-Insulation tested withDC 500 V	Basic conversion time	4.2324.1 ms (50 Hz) 3.8270.5 ms (60 Hz) per channel
Status displayyesInterruptsyes, parameterizableProcess alarmyes, parameterizableDiagnostic interruptyes, parameterizableDiagnostic interruptyes, parameterizableDiagnostic functionsyesDiagnostic information read-outpossibleModule stategreen LEDModule error displayred LEDChannel error displayred LED per channelIsolationsetween channelsBetween channels-Between channels of groups to-Between channels and backplane busyesBetween channels and power supply-Max. potential difference between inputs (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso) <td>Noise suppression for frequency</td> <td>&gt;90dB at 50Hz (UCM&lt;10V)</td>	Noise suppression for frequency	>90dB at 50Hz (UCM<10V)
InterruptsyesProcess alarmyes, parameterizableDiagnostic interruptyes, parameterizableDiagnostic functionsyesDiagnostic functionsyesDiagnostic functionsyesDiagnostic information read-outpossibleModule stategreen LEDModule error displayred LEDChannel error displayred LEDBetween channels-Between channels-Between channels of groups to-Between channels and backplane busyesBetween channels and power supply-Max. potential difference between inputs (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)-Max. potential difference between inputs and Mana (Ucm)-Max. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs an	Status information, alarms, diagnostics	
Process alarmyes, parameterizableDiagnostic interruptyes, parameterizableDiagnostic functionsyesDiagnostics information read-outpossibleModule stategreen LEDModule error displayred LEDChannel error displayred LED per channelIsolationBetween channels-Between channels of groups to-Between channels and backplane busyesBetween channels and power supply-Max. potential difference between inputs (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)-Max. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)-Max. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)-Max. potential difference between inputs and Mintern (Uiso)-Max. potential difference between inputs and Mintern (Uiso)C 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)-Max. potential difference between Mintern and outputs-Max. po	Status display	yes
Diagnostic interruptyes, parameterizableDiagnostic functionsyesDiagnostic functionspossibleModule stategreen LEDModule error displayred LEDChannel error displayred LED per channelIsolationBetween channels-Between channels of groups to-Between channels and backplane busyesBetween channels and power supply-Max. potential difference between inputs (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mana (Ucm)-Max. potential difference between inputs and Mana (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mana (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mana (Ucm)-Max. potential difference between inputs and Mana (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mana (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mana (Ucm)-Max. potential difference between inputs and Mana (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mana (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between Mintern and outputs-Max. potential difference between Mintern An outputs-	Interrupts	yes
Diagnostic functionsyesDiagnostic functionspossibleModule stategreen LEDModule error displayred LEDChannel error displayred LED per channelIsolationIsolationBetween channels-Between channels of groups to-Between channels and backplane busyesBetween channels and power supply-Max. potential difference between inputs (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mana (Ucm)-Max. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between Mintern and outputs-Insulation tested withDC 500 V	Process alarm	yes, parameterizable
Diagnostics information read-outpossibleModule stategreen LEDModule error displayred LEDChannel error displayred LED per channelIsolationIsolation-Between channels of groups to-Between channels and backplane busyesBetween channels and power supply-Max. potential difference between inputs (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)-Max. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 500 V	Diagnostic interrupt	yes, parameterizable
Module stategreen LEDModule error displayred LEDChannel error displayred LED per channelIsolationIsolationBetween channels-Between channels of groups to-Between channels and backplane busyesBetween channels and power supply-Max. potential difference between circuits-Max. potential difference between inputs (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mana (Ucm)-Max. potential difference between inputs and Mana (Ucm)-Max. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mana (Ucm)-Max. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between Mintern and outputs-Max. potential difference between Mintern and outputs-Max	Diagnostic functions	yes
Module error displayred LEDChannel error displayred LED per channelIsolationred LED per channelBetween channels-Between channels of groups to-Between channels and backplane busyesBetween channels and power supply-Max. potential difference between niputs (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)-Max. potential difference between inputs and Mintern (Uiso)C 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)C 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between Mintern and outputs-Max. potential difference between Mintern and outputs- <td>Diagnostics information read-out</td> <td>possible</td>	Diagnostics information read-out	possible
Channel error displayred LED per channelIsolationBetween channels-Between channels of groups to-Between channels and backplane busyesBetween channels and power supply-Max. potential difference between circuits-Max. potential difference between inputs (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)-Max. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)-Max. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between Mintern and outputs-Max. potential	Module state	green LED
IsolationBetween channels-Between channels of groups to-Between channels and backplane busyesBetween channels and power supply-Max. potential difference between circuits-Max. potential difference between niputs (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)-Max. potential difference between niputs and Mintern (Uiso)-Max. potential difference between niputs and Mintern (Uiso)-Max. potential difference between niputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between niputs and Mintern (Uiso)-Max. potential difference between niputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between niputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between niputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between Nintern and outputs-Disultion tested withDC 500 V	Module error display	red LED
Between channels-Between channels of groups to-Between channels and backplane busyesBetween channels and power supply-Max. potential difference between circuits-Max. potential difference between inputs (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mana (Ucm)-Max. potential difference between inputs and Mana (Ucm)-Max. potential difference between inputs and Mana (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mana (Ucm)-Max. potential difference between inputs and Mana (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mana (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mana (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mana (Ucm)DC 75 V/ AC 50 VMax. potential difference between Mintern and outputs-Max. potential	Channel error display	red LED per channel
Between channels of groups to-Between channels and backplane busyesBetween channels and power supply-Max. potential difference between circuits-Max. potential difference between inputs (Ucm)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)-Max. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between Mintern and outputs-Disulation tested withDC 500 V	Isolation	
Between channels and backplane busyesBetween channels and power supply-Max. potential difference between circuits-Max. potential difference between inputs (Ucm)DC 75 V/ AC 50 VMax. potential difference between Mana and Mintern (Uiso)-Max. potential difference between inputs and Mana (Ucm)-Max. potential difference between inputs and Mana (Ucm)-Max. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mana (Ucm)-Max. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between Mintern and outputs-Dc 500 VDC 500 V	Between channels	
Between channels and power supply-Max. potential difference between circuits-Max. potential difference between inputs (Ucm)DC 75 V/ AC 50 VMax. potential difference between Mana and Mintern (Uiso)-Max. potential difference between inputs and Mana (Ucm)-Max. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between Mintern and outputs-Insulation tested withDC 500 V	Between channels of groups to	
Max. potential difference between circuits-Max. potential difference between inputs (Ucm)DC 75 V/ AC 50 VMax. potential difference between Mana and Mintern (Uiso)-Max. potential difference between inputs and Mana (Ucm)-Max. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between inputs and Mintern (Uiso)DC 75 V/ AC 50 VMax. potential difference between Mintern and outputs-Insulation tested withDC 500 V	Between channels and backplane bus	yes
Max. potential difference between inputs (Ucm)       DC 75 V/ AC 50 V         Max. potential difference between Mana and Mintern (Uiso)       -         Max. potential difference between inputs and Mana (Ucm)       -         Max. potential difference between inputs and Mintern (Uiso)       DC 75 V/ AC 50 V         Max. potential difference between inputs and Mintern (Uiso)       DC 75 V/ AC 50 V         Max. potential difference between Mintern and outputs       -         Insulation tested with       DC 500 V	Between channels and power supply	
Max. potential difference between Mana and Mintern (Uiso)       -         Max. potential difference between inputs and Mana (Ucm)       -         Max. potential difference between inputs and Mintern (Uiso)       DC 75 V/ AC 50 V         Max. potential difference between Mintern and outputs       -         Insulation tested with       DC 500 V	Max. potential difference between circuits	
Max. potential difference between inputs and Mana (Ucm)       -         Max. potential difference between inputs and Mintern (Uiso)       DC 75 V/ AC 50 V         Max. potential difference between Mintern and outputs       -         Insulation tested with       DC 500 V	Max. potential difference between inputs (Ucm)	DC 75 V/ AC 50 V
Max. potential difference between inputs and Mintern (Uiso)       DC 75 V/ AC 50 V         Max. potential difference between Mintern and outputs       -         Insulation tested with       DC 500 V	Max. potential difference between Mana and Mintern (Uiso)	
Max. potential difference between Mintern and outputs     -       Insulation tested with     DC 500 V	Max. potential difference between inputs and Mana (Ucm)	
Insulation tested with DC 500 V	Max. potential difference between inputs and Mintern (Uiso)	DC 75 V/ AC 50 V
	Max. potential difference between Mintern and outputs	-
Technical data encoder supply	Insulation tested with	DC 500 V
	Technical data encoder supply	

## YASKAWA

Number of outputs	-
Output voltage (typ)	-
Output current (rated value)	-
Short-circuit protection	-
Binding of potential	-
Datasizes	
Input bytes	4
Output bytes	0
Parameter bytes	22
Diagnostic bytes	20
Housing	
Material	PPE / PPE GF10
Mounting	Profile rail 35 mm
Mechanical data	
Dimensions (WxHxD)	12.9 mm x 109 mm x 76.5 mm
Net weight	58 g
Weight including accessories	58 g
Gross weight	
GIOSS WEIGHT	72 g
Environmental conditions	72 g
	72 g 0 °C to 60 °C
Environmental conditions	
Environmental conditions Operating temperature	0 °C to 60 °C
Environmental conditions Operating temperature Storage temperature	0 °C to 60 °C
Environmental conditions Operating temperature Storage temperature Certifications	0 °C to 60 °C -25 °C to 70 °C
Environmental conditions Operating temperature Storage temperature Certifications UL certification	0 °C to 60 °C -25 °C to 70 °C yes