Product data sheet
Characteristics

RMCL55BD
Harmony Analog, Voltage/current converter, Isolated 0...20 mA

Main

Range of product	Harmony Analog
Product or component type	Voltage/current converter
Analogue input type	Current 0...20 mA Current 4...20 mA Voltage +/- 10 V DC Voltage 0...10 V DC
Analogue output type	Current 0...20 mA <= 500 Ohm switchable Current 4...20 mA <= 500 Ohm switchable Voltage +/- 10 V >= 100 kOhm switchable Voltage 0...10 V >= 100 kOhm switchable

Complementary

Protection type	Reverse polarity protection on output Short-circuit protection on output Overvoltage protection on output (+/- 30 V)
Abnormal analogue output voltage	11...15 V, output selected - 10...10 V no input or input wire broken voltage 11...15 V, output selected 0...10 V no input or input wire broken voltage -15...0 V, output selected 0...20 mA no input or input wire broken current -15...0 V, output selected 4...20 mA no input or input wire broken current
Abnormal analogue output current	22…30 MA, output selected 0...20 mA no input or input wire broken voltage 22…30 MA, output selected 4...20 mA no input or input wire broken voltage -30…0 MA, output selected 0...20 mA no input or input wire broken current 4…30 mA, output selected 4...20 mA no input or input wire broken current
[Us] rated supply voltage	24 V DC +/- 20 %, isolated
Current consumption	<= 70 mA for voltage output <= 90 mA for current output
Local signalling	LED (green) for power ON
Measurement error	+/- 10 % of full scale at 20 °C (electromagnetic interference of 10 V/m) +/- 1 % of full scale at 20 °C
Repeat accuracy	+/- 0.2 % full scale at 20 °C +/- 0.6 % full scale at 60 °C
Temperature coefficient	200 ppm/°C
Clamping connection capacity	2 x 1.5 mm² 1 x 2.5 mm²
Tightening torque	0.6…1.1 N.m
Marking	CE
Surge withstand	0.5 kV during 1.2/50 µs conforming to IEC 61000-4-5
[Ui] rated insulation voltage	2 kV
Fixing mode	By screws (mounting plate) Clip-on (35 mm symmetrical DIN rail)
Safety reliability data	B10d = 20000 MTTFd = 21.6 years
Net weight	0.12 kg

Environment

Standards	IEC 60947-1 IEC 60584-1
Product certifications	UL GL CSA
IP degree of protection	IP20 (terminal block) IP50 (housing)
Fire resistance	850 °C conforming to IEC 60695-2-1 850 °C conforming to UL
Shock resistance	50 gn for 11 ms conforming to IEC 60068-2-27
Vibration resistance	5 gn (f= 10…100 Hz) conforming to IEC 60068-2-6
Resistance to electrostatic discharge	6 KV (in contact) conforming to IEC 61000-4-2 level 3 8 kV (in air) conforming to IEC 61000-4-2 level 3
Resistance to fast transients	1 KV (on input-output) conforming to IEC 61000-4-4 2 kV (on power supply) conforming to IEC 61000-4-4
Disturbance radiated/conducted	CISPR 22 group 1 - class B CISPR 11
Ambient air temperature for storage	-40…85 °C
Ambient air temperature for operation	0…50 °C mounting side by side 0…60 °C 2 cm spacing
Pollution degree	2 conforming to IEC 60664-1

Packing Units

Package 1 Weight	0.119 kg
Package 1 Height	0.270 dm
Package 1 width	0.820 dm
Package 1 Length	0.850 dm

Offer Sustainability

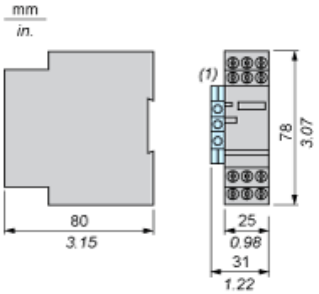
Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Contractual warranty

Warranty	18 months

Analog Interface (Converter)

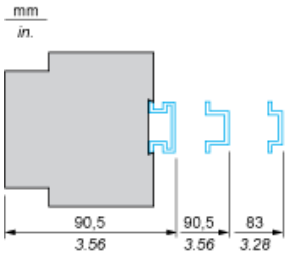
Dimensions



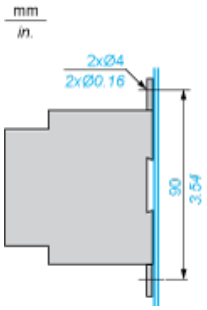
(1) Terminal block AB1TP435U or AB1RRNTP435U2

Mounting

Mounting on Rails AM1•••••

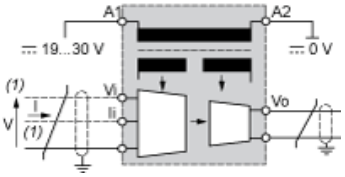


Panel Mounting



Analog Interface: Voltage/Current Converter

Wiring Diagram



(1) Use 1 input only.

The input, output and power supply lines must be kept away from the power cables to avoid effects due to induced interference.

The input and output cables must be shielded as indicated in the schemes and must be kept away from each other.