Self Powered Current Loop Isolator
Z110S – 1 channel
Z110D – 2 channel

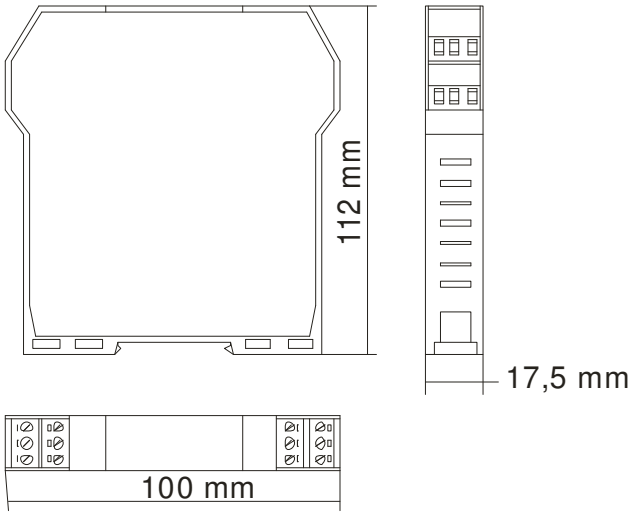
GENERAL SPECIFICATION

- 4 – 20 mA current input.
- Retransmission of input as an isolated 4 – 20 mA output.
- Input/output isolation: 1500Vdc.
- Channel to channel isolation: 1500Vdc. (2 channel model Z110D only).

TECHNICAL SPECIFICATION

Power:	Self Powered from the input (primary) loop			
Input:	Current: 4 – 20 mA Minimum Volt Drop at 20mA: 7V (all loads up to 160Ω) Maximum Volt Drop at 20mA 3.8V + (Load Resistance)*0.02V			
Output:	4 – 20 mA (active), max load resistance 500 ohm			
Operating Conditions:	Temperature: 0~50℃, Humidity min:30%, max 90% @ 40℃, non condensing			
Input measurement error.	Calibration Error:	Thermal Coefficient:	Linearisation error:	Load variation effect:
	0.1% of full scale	0.02% of full scale /℃	0.1% of full scale	0.1% of full scale
Response Time:	<100 mS to reach 90% of final value			
Input Protection:	Protected up to 35Vdc Max			
Output Protection:	Protected up to 35Vdc Max			
Standards CE	This instrument meets or exceeds the requirements of EN50081-2 (electromagnetic emissions, industrial environment) EN50082-2 (electromagnetic susceptibility, industrial environment) EN61010-1 (safety)			

DIMENSIONS



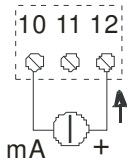
INSTALLATION

The Z110S and Z110D are designed for easy mounting on 35mm DIN rail.

ELECTRICAL CONNECTIONS

Screened cable is recommended for signal connections and the screen should be connected to the instrument earth. It is good practice to separate signal cables from power cables and to avoid potential sources of interference such as electric motors, variable speed drives, microwave ovens and induction furnaces.

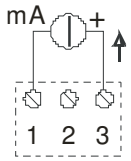
CHANNEL 1 INPUT (Z110S and Z110D)



PASSIVE INPUT: Connect the module in the current loop as shown.
The module is powered by the 4 to 20mA current loop.

Voltage Drop at 20mA: 3.8V plus Load Volt drop (0.02*load resistance), minimum 7V (e.g. with load of 250Ω Volt Drop is 3.8V + (0.02*250) = 8.80V)

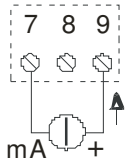
CHANNEL 1 OUTPUT (Z110S and Z110D)



ACTIVE OUTPUT: The module generates a current in the output loop identical to the current in the input loop. It is capable of driving into a maximum load of 500Ω.

<u>The output loop must NOT be powered.</u>

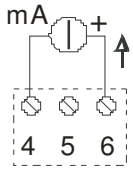
CHANNEL 2 INPUT (Z110D only)



PASSIVE INPUT: Connect the module in the current loop as shown.
The module is powered by the 4 to 20mA current loop.

Voltage Drop at 20mA: 3.8V plus Load Volt drop (0.02*load resistance), minimum 7V (e.g. with load of 250Ω Volt Drop is 3.8V + (0.02*250) = 8.80V)

CHANNEL 2 OUPUT (Z110D only))



ACTIVE OUTPUT: The module generates a current in the output loop identical to the current in the input loop. It is capable of driving into a maximum load of 500Ω.

<u>The output loop must NOT be powered.</u>

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