



H 7017: Shunt with low-pass filter

- for current measurement with analog input modules
- as a module for mounting on a DIN rail

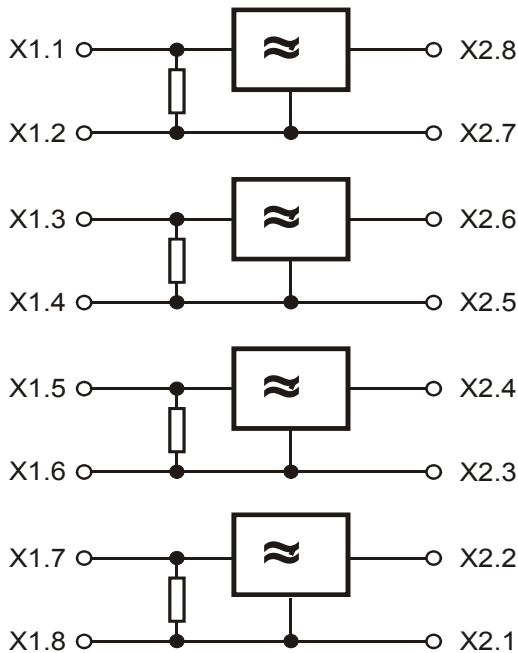


Figure 1: Block diagram

If analog input modules operate under extreme ambient conditions or not according to the HIMA recommendations there can be interferences or interspersions in the module channels. The module H 7017 is used in these cases as a module for a current measuring with the analog input modules.

The module H 7017 can operate with e.g. the following modules:

- F 6217 8-channel analog input module
Elimination of interferences at sensors with high dynamic signals
- F 6251 (Planar F) or 62100 (Planar4) 2-fold limit monitor
Increase of noise immunity (10 V) according to IEC 61000-4-6 at use with unshielded cables.



When using the module H 7017 the shunts in the analog input modules must be unsoldered (modified cable plug) otherwise the current measurement would be tampered. Further details you will find in the corresponding data sheets.

The module comprises four identical functions: for each a shunt with a subsequent low-pass filter.

The filter is equipped with a triple redundancy. So it is ensured that the input signal is continuously measured even if there is an interruption of a filter resistor. In case of an error, for the tantalum capacitors increased leakage currents have to be assumed.



With use of the module the process signal can be delayed up to 3 seconds.
In case of an error a reduction of the process signal must be considered.

Technical data

Shunt	250 Ω
Time constant of the filter	$\tau = 300$ ms
Operational limit	1.5 %
Ambient temperature	0...+60 °C
Degree of protection	IP 00

Connections and cross sections

X1	Inputs	Terminal row 8-pole, 2.5 mm ²
X2	Outputs	Terminal row 8-pole, 2.5 mm ²

Mechanical design and dimensions of Terminal Module H 7017

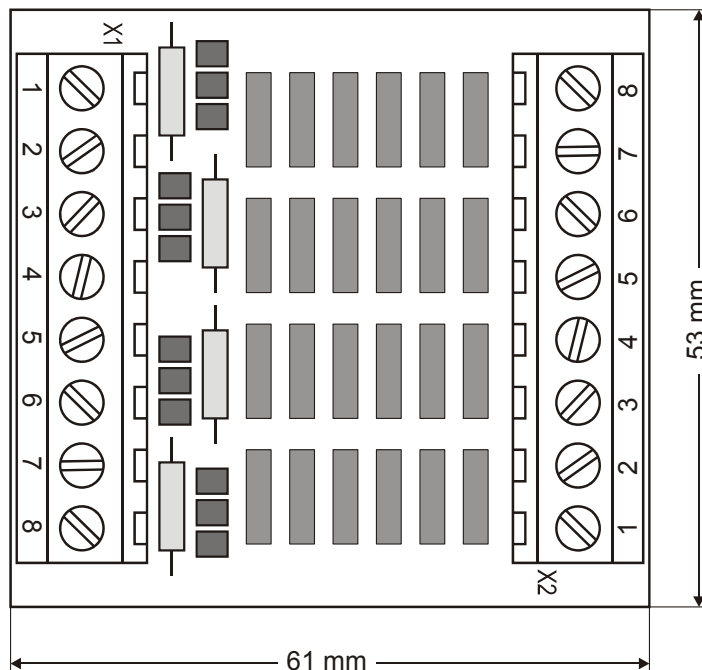


Figure 2: Mechanical design and dimensions of Terminal Module H 7017

Depth	40 mm (including terminals)
Mounting	on C rail or DIN rail 35 mm
Mounting position	horizontal or vertical
Assembling distance	not required

Application

Sensors with high dynamic signals can cause a channel fault in some cases. The module H 7017 (with integrated shunt) is designed for filtering these interferences. When using the module the cable plug Z 7127 / 6217 / C.. / I with unsoldered shunts (see Figure 3) or the cable plug Z 7128 / 6217 / C.. / ITI with unsoldered shunts (see Figure 4) has to be used for the F 6217.

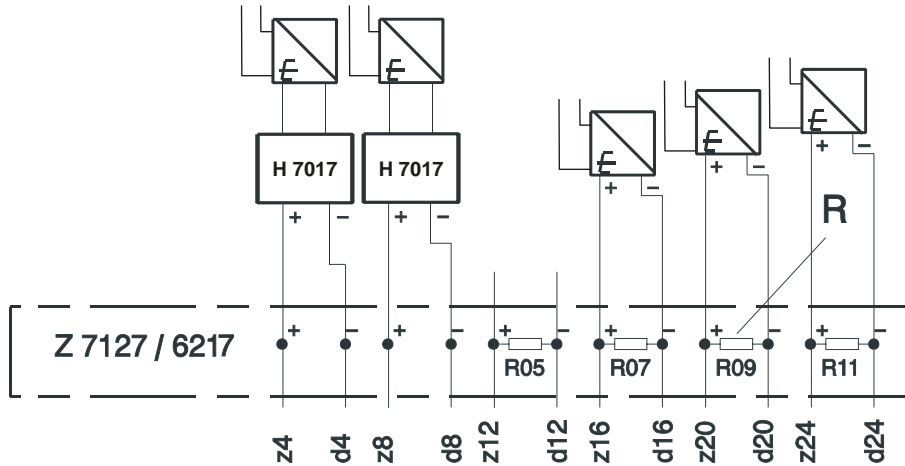


Figure 3: Application with cable plug Z 7127 / F 6217 with modules H 7017 instead of shunts

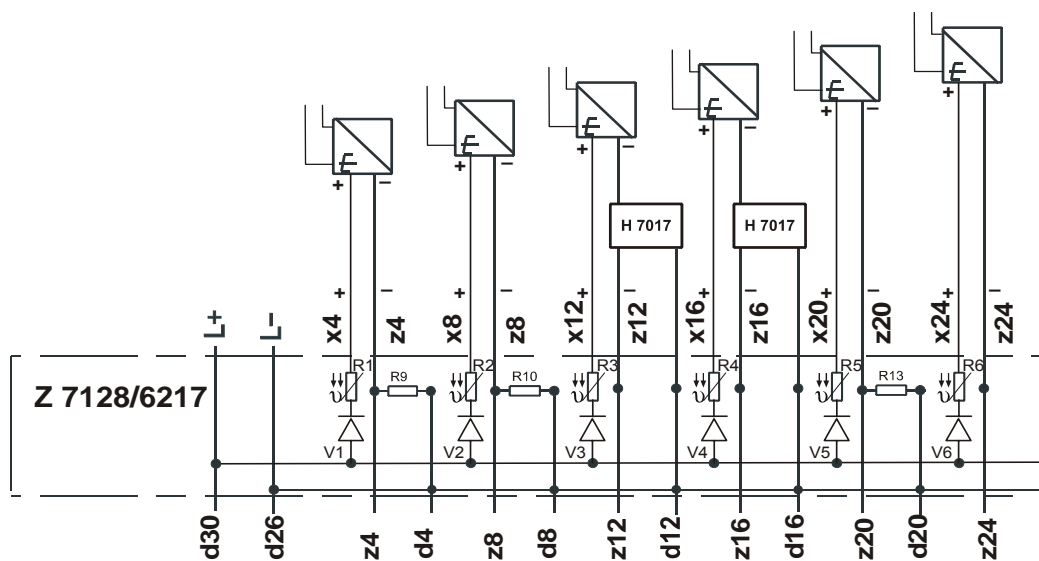


Figure 4: Application with cable plug Z 7128 / F 6217 with modules H 7017 instead of shunts

