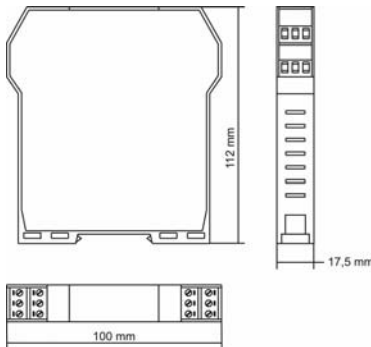


General Features

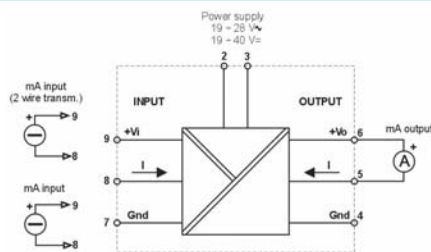


The Z109S module is designed to power any 0 or 4 to 20mA loop and to provide full three port isolation, ensuring the loop, the supply and the output signal are isolated from each other up to 1.500 Vdc. Both the input and output loops can be connected as either "active" or "passive" giving the flexibility to match most field sensors to instruments while alleviating all the usual problems associated with unisolated signals. The module is fully CE compliant and the compact housing fits easily onto symmetrical DIN rail.

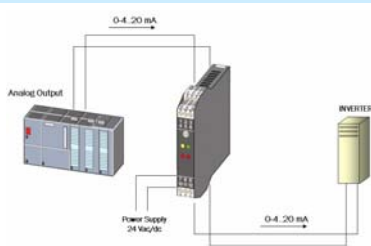
Dimensions



Schematic diagram



Example application

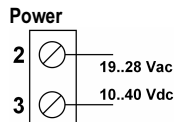


Technical Specifications

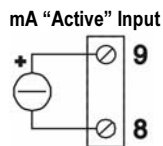
ELECTRICAL		SIGNALS & MEASUREMENT	
Power supply	9..40 Vdc, 19..28 Vac	Input	<ul style="list-style-type: none"> Current: 0..20, 4..20 mA Input impedance 20 Ω
Power consumption	<ul style="list-style-type: none"> 1.4 W < 15 mA a 12 Vdc without loop power 	Output	<ul style="list-style-type: none"> Current: 0..20, 4..20 A mA Output impedance - current loop: 0..600 Ω
Galvanic isolation	Power // Input // Output: 1.500 Vac	Accuracy	<ul style="list-style-type: none"> Calibration: 0.2% Linearity: 0.05% Thermal stability: 0.02%/°C
Protections	<ul style="list-style-type: none"> Input: current 100 mA continuous Output / Power: against short circuit 400 W/ms 	Response time	3 ms
Transmitters supply	3 wires, 20 Vdc stabilised, 20 mA max short circuit protected.	TERMOMECHANICS	
Front module indication	Power on	Temperature	<ul style="list-style-type: none"> Operating: 0..+ 50 °C Storage: -20..+70 °C
Installation class	II	Humidity	30..90% a +40 °C (non condensing)
Pollution rating	2	Dimensions	17.5 x 100 x 112 mm
IP protection	IP20	Weight	120 g approx
Connections	Plug in screw terminals for 2.5 mm² conductors (max)	Case	Nylon 6, 30 % fibreglass filled, self extinguishing class V0
CONFIGURATIONS & STANDARDS		Mounting	Symmetrical 35 mm DIN rail (top hat section)
CE Norms	EN50081-2 EN50082-2 EN61010-1		

Electrical connections

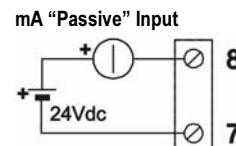
The use of screened cables is recommended for signals, with the screen connected to the instrument earth. It is good practice to segregate signal cables from power cables, particularly motors, inverter drives, thyristors, induction furnaces etc.



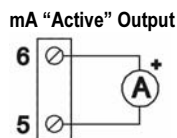
Supply must be within the specified tolerance of 19to 40 Vdc (not polarity conscious), or 19 to 28 Vac. Failure to observe these precautions will result in serious damage to the instrument. The equipment must be protected by a suitably sized fuse.



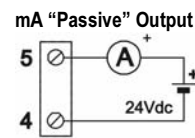
Connection for standard 2 wire transmitters, where the loop draws power from the Z109S. The power supply is 20Vdc stabilised with a maximum current of 20mA and is protected against accidental short circuit.



Connection for use when the current loop does NOT require power from the module (the loop power is externally supplied)



Connection for use when the output current loop must be powered by the Z109S. Maximum load is 600 Ω and the loop power supply is protected against accidental short circuit



Connection for use when the output current loop does NOT require power from the module (the output loop power is externally supplied)