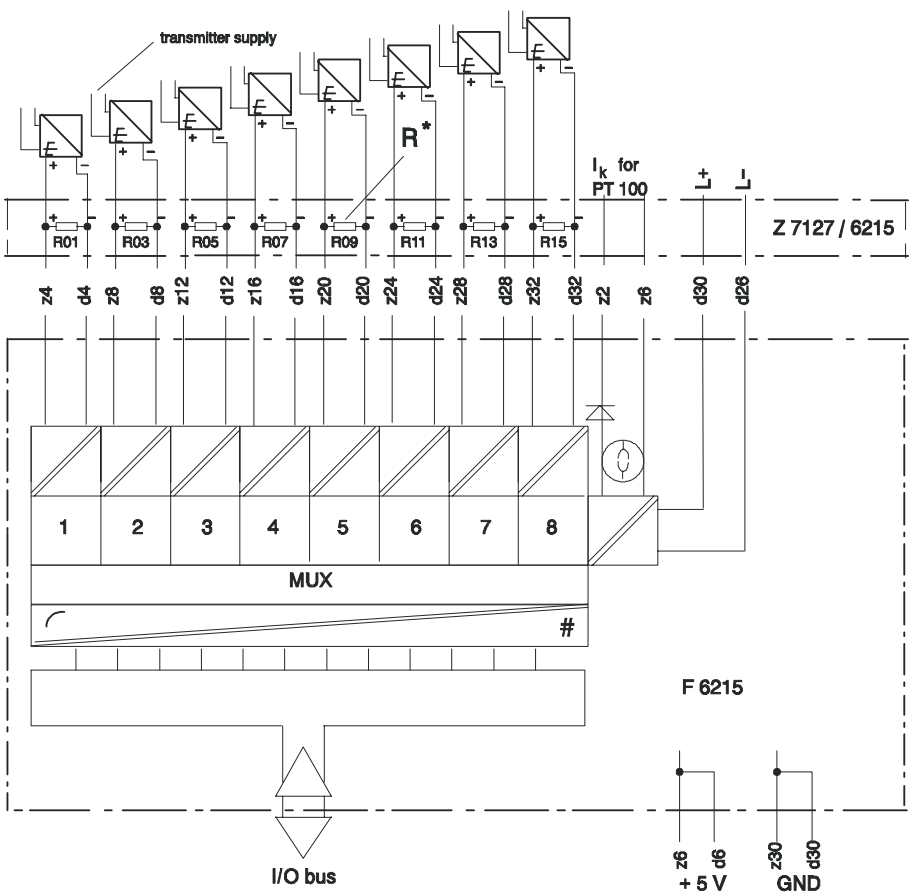
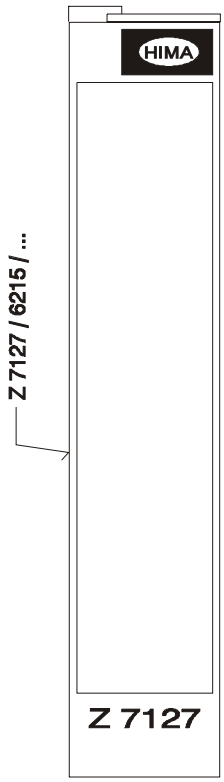
F 6215

F 6215: 8 fold analog input module
for voltage inputs 0...1/5/10 V,Pt 100 inputs
current inputs 0/4...20 mA,
with safety isolation to the plant and galvanically isolation between the inputs,
resolution 12 bits



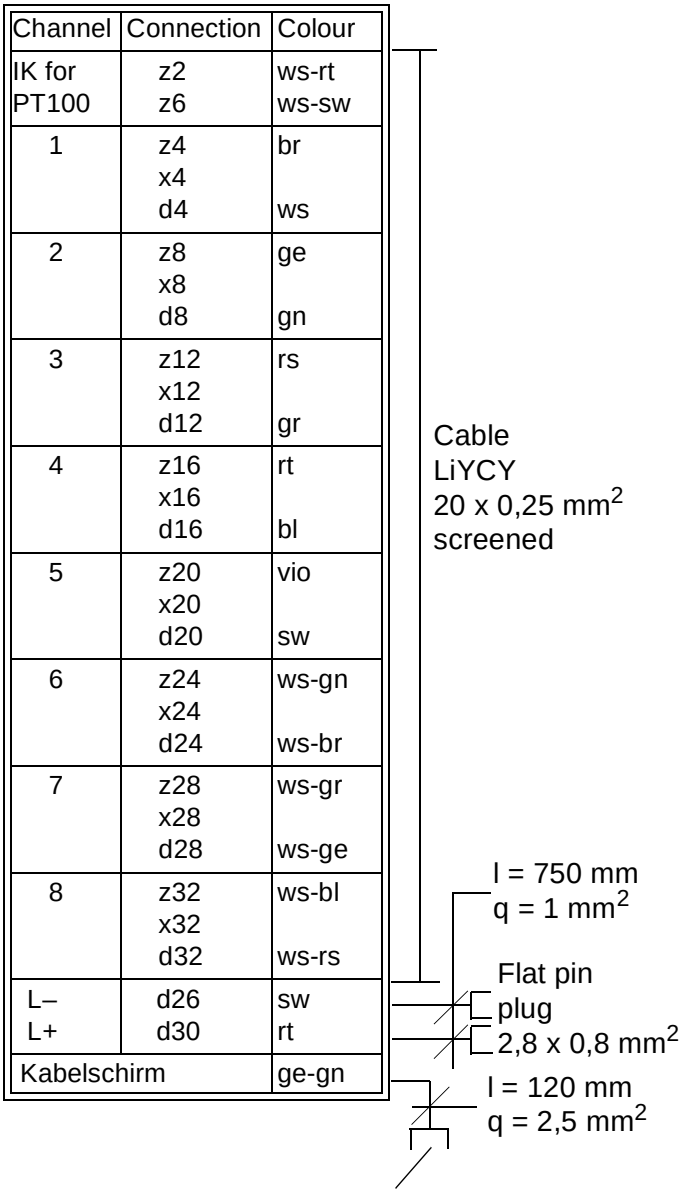
Block diagram



Front cable plug

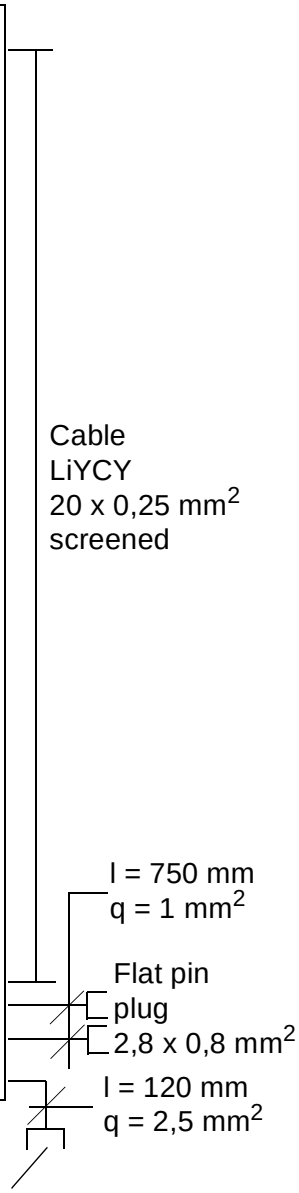
Input voltage	0...1.06 V (appr. 6 % overflow)
Digital values	0 mV = 0, 1 V = 3840
R*: Shunt with current input	50 Ohm; 0.05 %; 0.125 W; T<10 ppm/K; part-no: 00 0710500
Input resistance	min. 1 MOhm
Time const. inp. filter	appr. 2.2 ms
Conversion time	max. 4 ms for 8 channels
Basic error	0.1 % at 25 °C
Operating error	0.3 % at 0...+60 °C
Electric strength	200 V against Analog GND
Ik for PT 100	2.5 mA
Space requirement	4 TE
Operating data	5 V DC: 100 mA, 24 V DC: 140 mA

Channel	Connection	Colour
IK for PT100	z2 z6	ws-rt ws-sw
1	z4 x4 d4	br ws
2	z8 x8 d8	ge gn
3	z12 x12 d12	rs gr
4	z16 x16 d16	rt bl
5	z20 x20 d20	vio sw
6	z24 x24 d24	ws-gn ws-br
7	z28 x28 d28	ws-gr ws-ge
8	z32 x32 d32	ws-bl ws-rs
L– L+	d26 d30	sw rt
Kabelschirm		ge-gn



Lead marking cable plugto connect current/ voltage Z 7127 / 6215 / C.. / I (U1V)

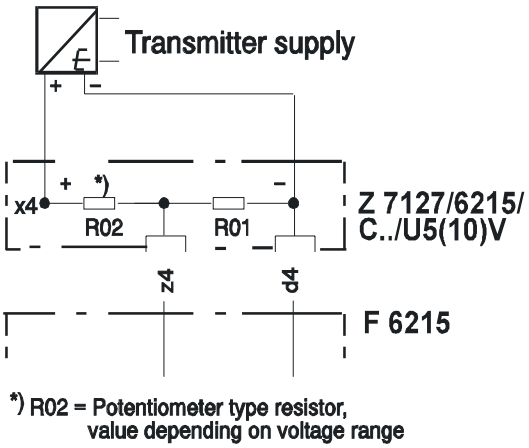
Channel	Connection	Colour
IK for PT100	z2 z6	ws-rt ws-sw
1	z4 x4 d4	 br ws
2	z8 x8 d8	 ge gn
3	z12 x12 d12	 rs gr
4	z16 x16 d16	 rt bl
5	z20 x20 d20	 vio sw
6	z24 x24 d24	 ws-gn ws-br
7	z28 x28 d28	 ws-gr ws-ge
8	z32 x32 d32	 ws-bl ws-rs
L– L+	d26 d30	sw rt
Kabelschirm		ge-gn



Lead marking cable plug to connect voltage via potentiometer
Z 7127 / 6215 / C.. / U5V (U10V)

Flat pin plug 6,3 x 0,8 mm, to be connected to the earth bar under the slot

Note to voltage inputs:
It is recommended to short-circuiting unused voltage inputs in the cable plug or on the appertaining terminal row.



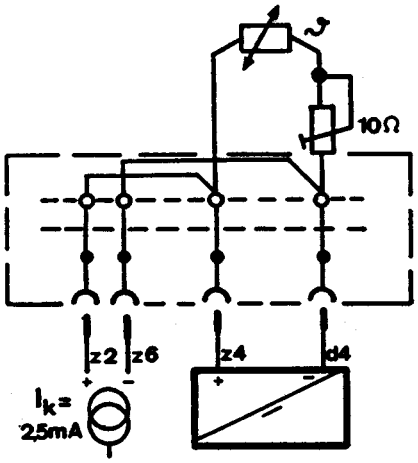
Connection with potentiometer (for voltage areas ≠ 0 ... 1 V)

Note to the connection with potentiometer:
Due to the tolerance of the potentiometer resistors the accuracy defined in the data sheet is at first guaranteed after a new balancing of all channels within the user's program or resistors with tolerances < 1 % have to be used.

Resistor equipment for the potentiometers on Z7127/6215, channel 1 ...8:

Measuring range U_M	R01, 03, 05, 07, 09, 11, 13, 15	R02, 04, 06, 08 10, 12, 14, 16
U_M = 0 ... 5 V Value: Part no.:	 33,2 kΩ, 1% 00 0751333	 133 kΩ, 1% 00 0751134
U_M = 0 ... 10 V Value: Part no.:	 20 kΩ, 1% 00 0751203	 178 kΩ, 1% 00 0751174

Two-wire technique with one Pt100 and line balancing (option):



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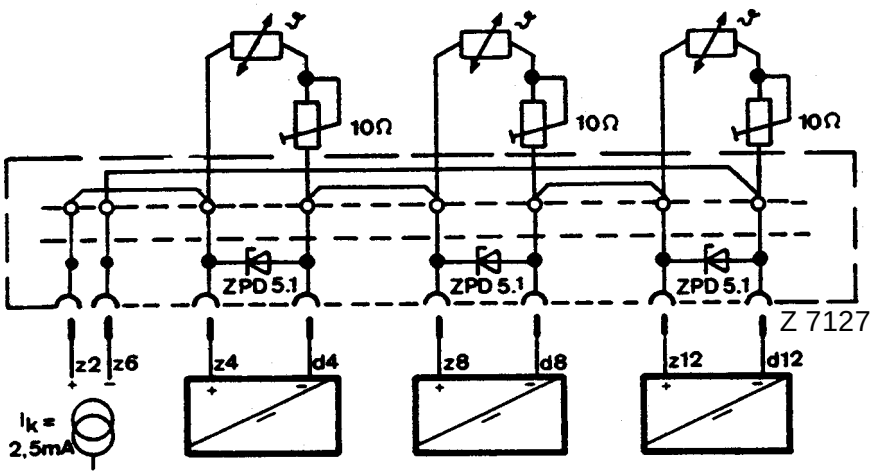
Line compensation via correction calculation in the user's program.

Using of more than one Pt100 in two-wire technique:



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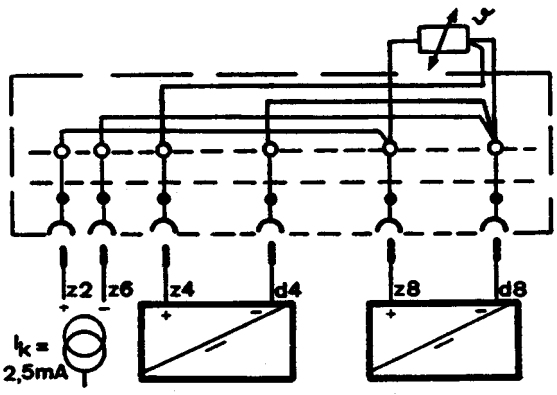
Line compensation via correction calculation in the user's program.

Connection of one Pt100 in three-wire technique:



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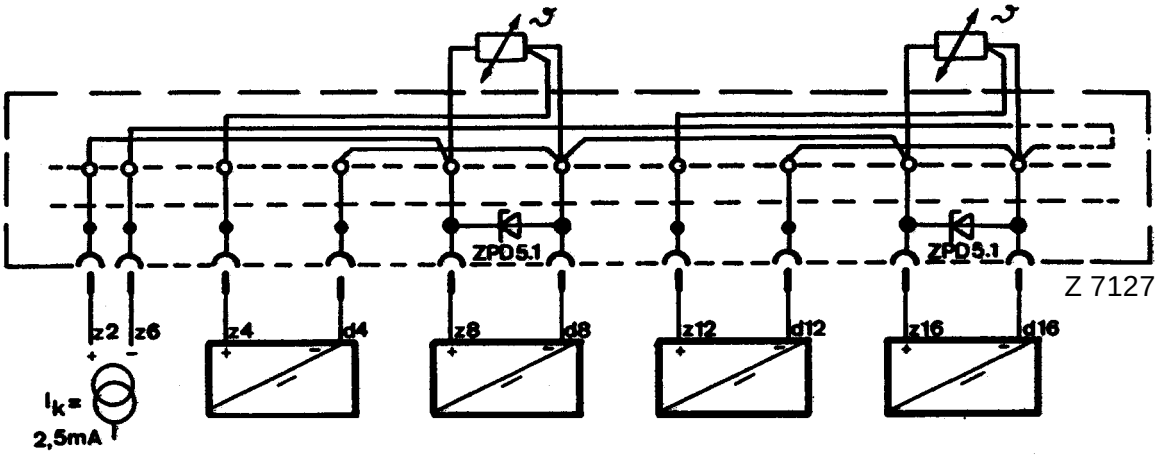
Connection of more than one Pt100 in three-wire technique:



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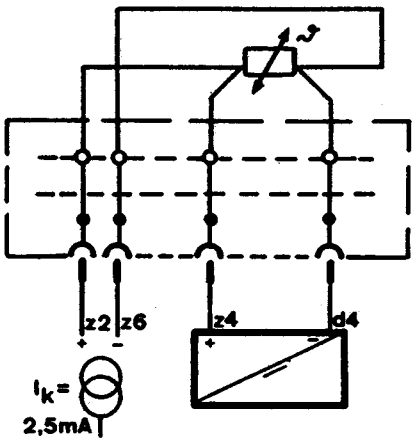
Connection of one Pt100 in four-wire technique:



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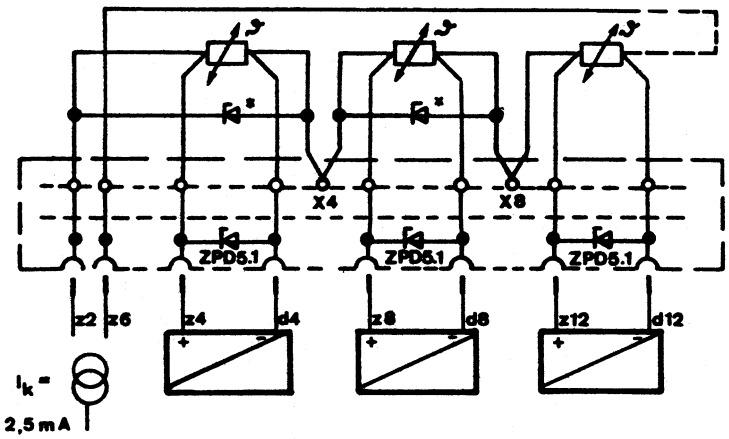
Using of more than one Pt100 in four-wire technique:



Z 7127 / 6215

*) Installation of diode ZPD 5.1 on terminals in case of interchanging a Pt100.

The resistance of the current loop must be less than 6 kOhm!
Reason: Granting security of the functions of all other Pt100 measurements in case of **one** thermometer break.