



F 6216A: 8-channel analog input module with transmitter supply

- for transmitters in two-wire technique 4...20 mA
- Pt 100 inputs, current inputs 0/4...20 mA
- with safety isolation to the plant and electrical isolation between the inputs
- resolution: 12 bits
- transmitter supply with safety isolation

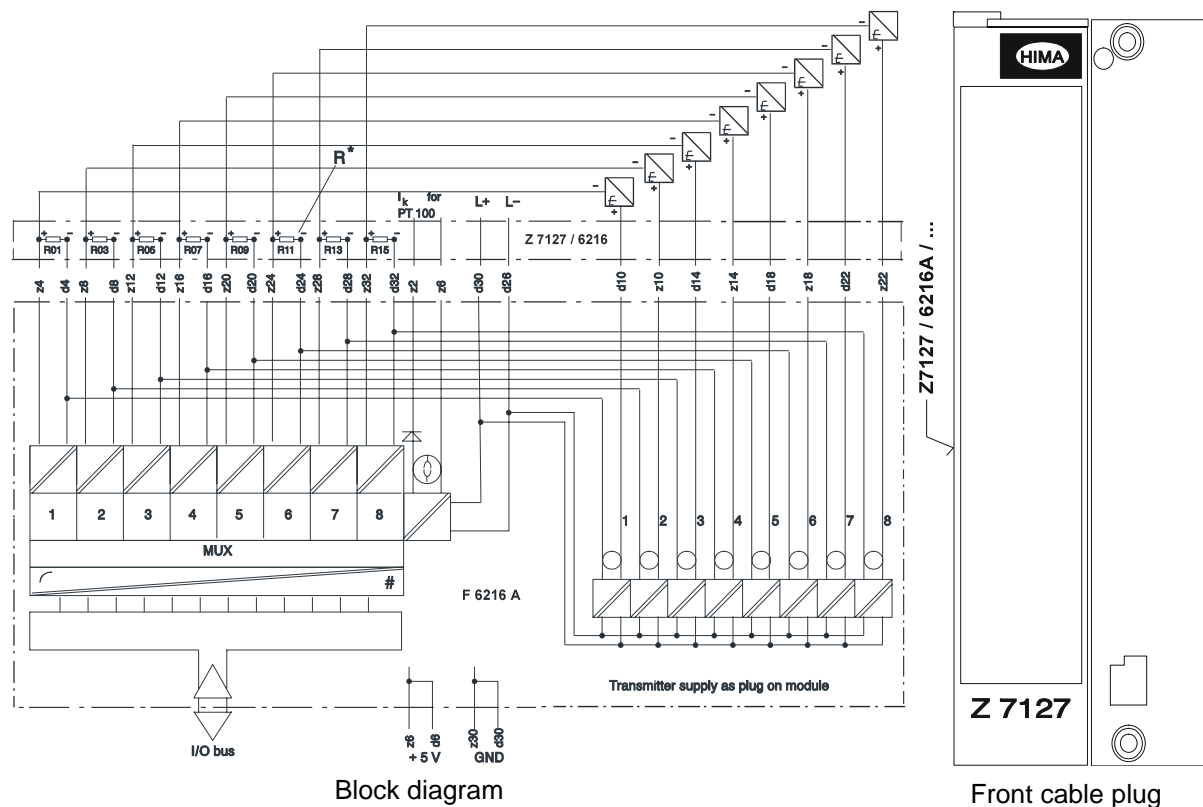


Figure 1: Block diagram and front cable plug

Analog input module:

Input voltage	0...1.06 V (approx. 6 % overflow)
Digital values	0 mA = 0, 20 mA = 3840, 21.3 mA = 4095
R*: Shunt with	50 Ω; 0.05 %; 0.125 W;
current input	T<10 ppm/K; part-no: 00 0710500
Input resistance	min. 1 MΩ
Time const. input filter	approx. 2.2 ms
Conversion time	max. 4 ms for 8 channels
Basis error	0.2 % at 25 °C (of upper range value)
Operating error	0.4 % at 0...+60 °C (of upper range value)
Electric strength	200 V against Analog GND
I _k for PT 100	2.5 mA
Space requirement	8 SU
Operating data	5 VDC / 100 mA, 24 VDC / 590 mA

Transmitter supply:

Output	short-circuit-proof
Output voltage	26 V...21 V ($I > 1 \text{ mA}$)
Output current	0...25 mA
Load impedance	max. 900Ω
Short circuit current	30...40 mA

Channel	Connection	Color	Channel	Connection	Color
IK for PT100	z2 z6	WHRD WHBK	IK for PT100	z2 z6	WHRD WHBK
1	z4 x4 d10	BN WH	1	z4 x4 d10	BN WH
2	z8 x8 z10	YE GN	2	z8 x8 z10	YE GN
3	z12 x12 d14	PK GY	3	z12 x12 d14	PK GY
4	z16 x16 z14	RD BU	4	z16 x16 z14	RD BU
5	z20 x20 d18	VT BK	5	z20 x20 d18	VT BK
6	z24 x24 z18	WHGN WHBN	6	z24 x24 z18	WHGN WHBN
7	z28 x28 d22	WHGY WHYE	7	z28 x28 d22	WHGY WHYE
8	z32 x32 z22	WHBU WHPK	8	z32 x32 z22	WHBU WHPK
L-	d26	BK	L-	d26	BK
L+	d30	RD	L+	d30	RD
Cable screen		YEGN	Cable screen		YEGN

Cable
LiYCY
20 x 0.25 mm²
screened

$l = 750 \text{ mm}$
 $q = 1 \text{ mm}^2$

Flat pin
plug
2.8 x 0.8 mm²

$l = 120 \text{ mm}$
 $q = 2.5 \text{ mm}^2$

Flat pin plug 6.3 x 0.8 mm, to be connected to the earth bar under the slot

Lead marking cable plug
Z 7127 / 6216 / C.. / IT to connect current/voltage

Lead marking cable plug to connect smart transmitters
Z 7127 / 6216 / C.. / IT

Figure 2: Lead marking cable plug

Note to voltage inputs:

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

Current inputs:

Measuring range 0/4 - 20 mA

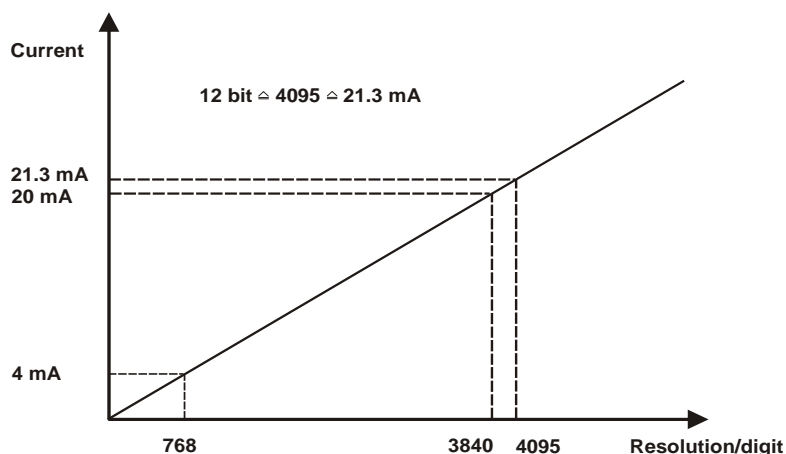
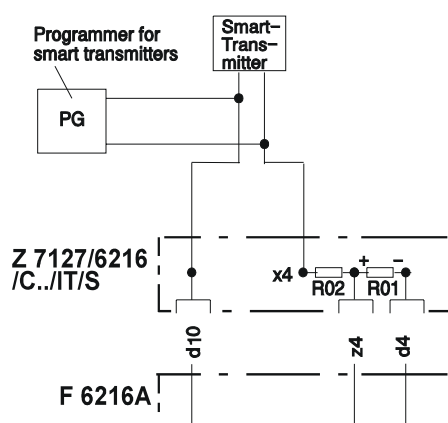


Figure 3: Current inputs

Smart transmitter



R01, R03, R05, R07,
R09, R11, R13, R15 =
50 Ω , 0.05 %
R02, R04, R06, R08,
R10, R12, R14, R16 =
220 Ω , 0.5 W, 5 %,
Part no.:
00 0471221

Connection of smart
transmitter

Figure 4: Connection of smart transmitter

