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In Fig. 2 is a graph of the test results quartz pressure transducer with mathematical temperature compensated readings of temperature-sensitive resonator, which is located in the transmitter housing. The test was conducted in the Company "SKTB ELPA" December 12, 2007.

Converter PDTK-80,0-MS23 (with an upper limit of measurement 800 kgf/cm^2) was placed in the tube (see Fig. 1), the upper part of the pipe was plugged insulation material.

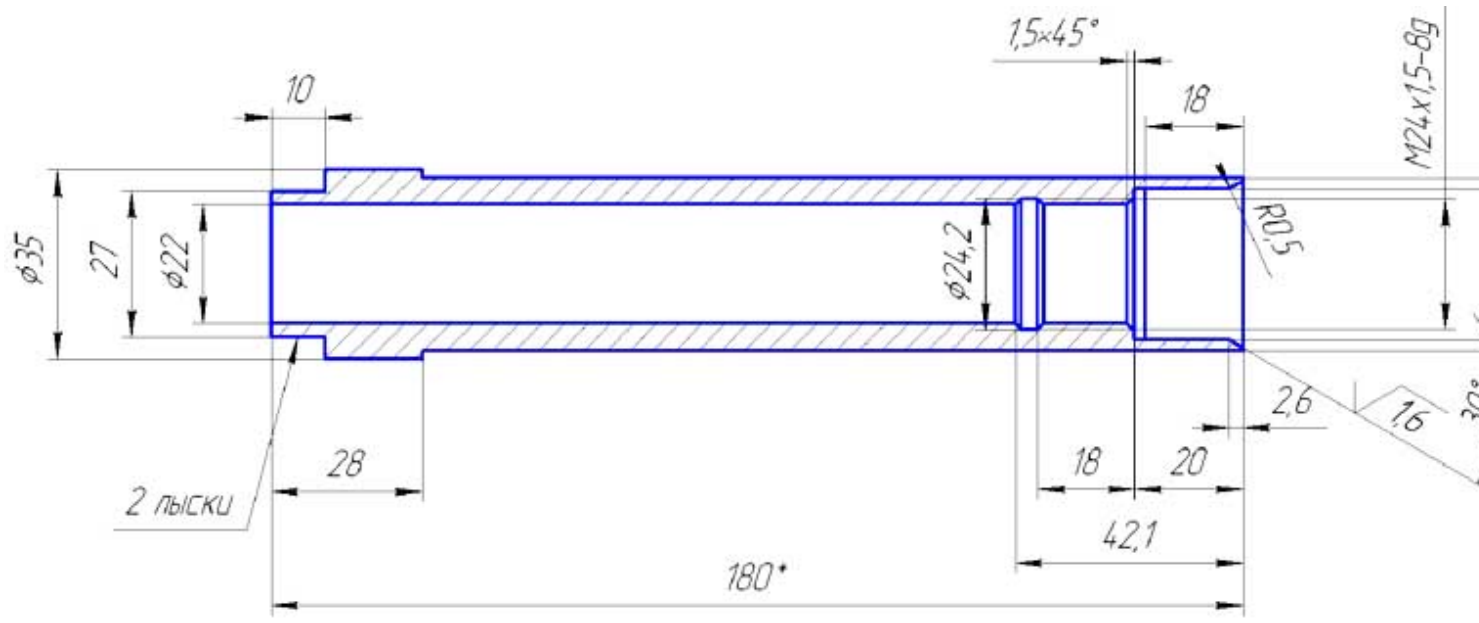

рис. 1

Transducer assembly with the pipe (hereinafter converter) was cooled to 0 ° C, then placed in an incubator, which had a flow temperature of 70 ° C. For the control of temperature in the thermostat was set reference quartz thermometer PTK-0,05-3 (see Fig. 3). To control the air pressure on the table was set pressure transducer and temperature quartz PDTK 0,1-2-R with an upper limit of measurement 800 mm Hg (1.0876 kg/cm^2) and the basic reduced error of <0.06% FS.
Poll each channel inverter is - every 10 seconds.
At the time of thermal shock, a sharp change in the frequency of the resonator barochuvstvitelnogo, based on the pressure of the order - 7 ... 9 kgf / cm^2.
Further as a result of heating and temperature compensation after 240 seconds. transducer readings are restored with an error of 0.2 kgf/cm^2 (0.03% of full scale), and after 500 sec. With an accuracy of 0.02 kg/cm ^{2}. (0.003% of full scale).

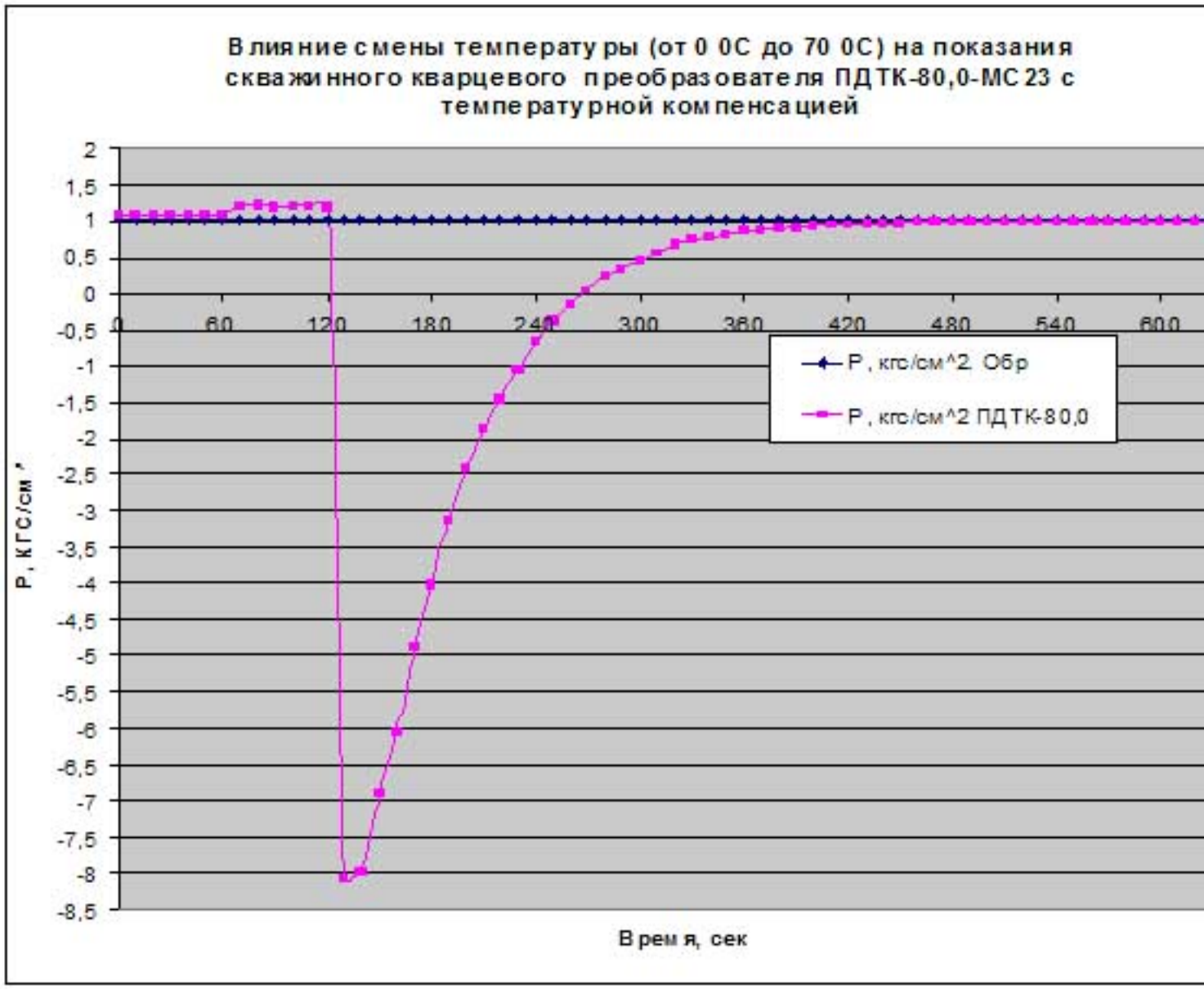

Fig. 2

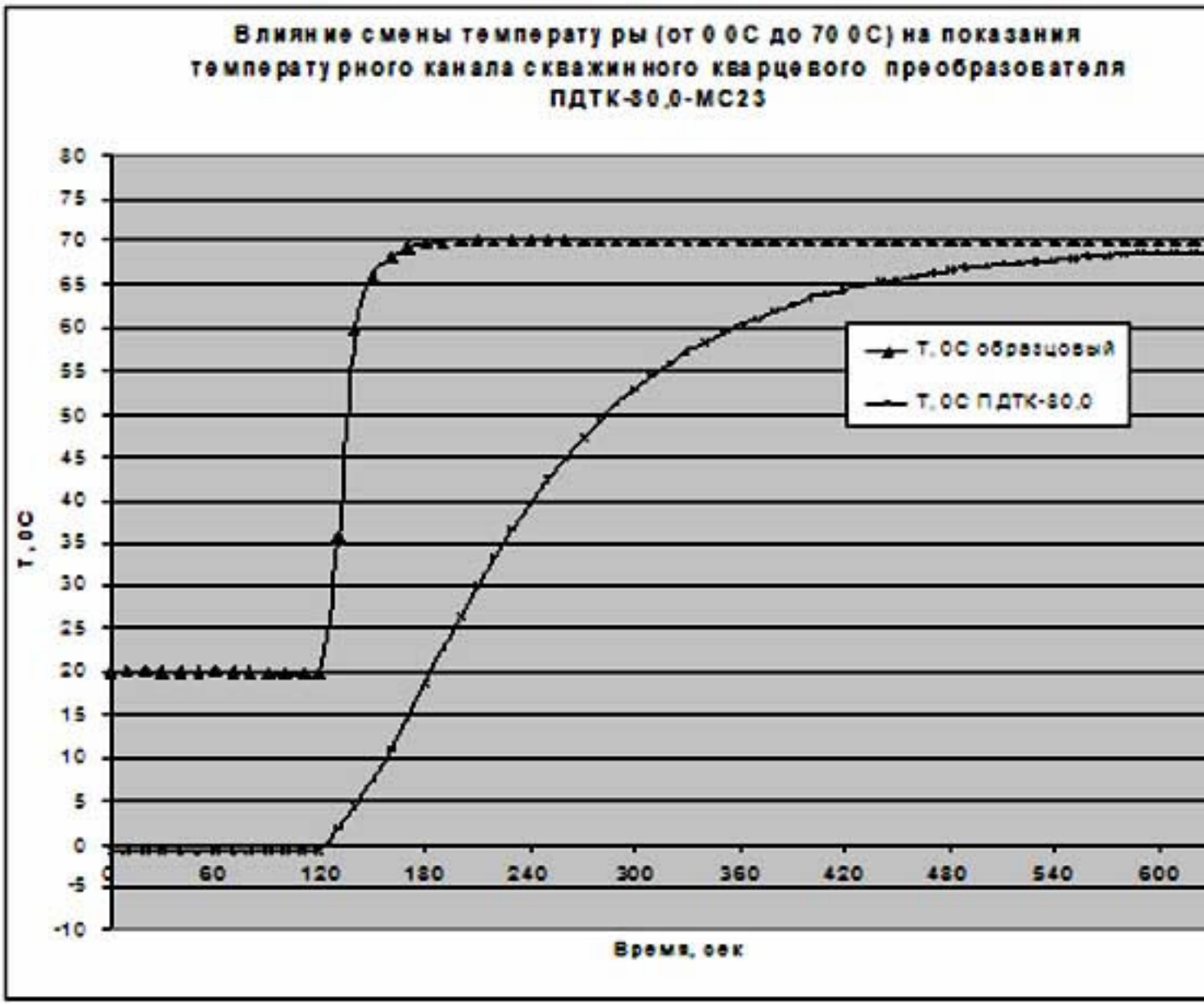
Влияние смены температуры (от 0 0С до 70 0С) на показания температурного канала скважинного кварцевого преобразователя ПДТК-80,0-МС23
Т, 0С
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
-5
-10
0
60
120
180
240
300
360
420
480
540
600
Время, сек
Т, 0С образцовый
Т, 0С ПДТК-80,0

Fig. 3