

# REGIONAL HEALTH AUTHORITY

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<b>Your letter:</b>	<b>Our sign:</b>	<b>Handled by:</b>	<b>Hradec Kralove</b>
<b>Contract</b>	<b>9301/2001</b>	<b>Ing. Brabec</b>	<b>5. October 2001</b>

## **Subject:**

**Verification of health and sanitation safety of pressure transmitters  
Series TMG xx7 A3x (or B3x, C3x)**

Based on a contract of making an expert opinion, entered into with your company on 13<sup>th</sup> August 2001, the accredited laboratory of the Regional Health Authority in Hradec Králové made laboratory verification of the delivered pressure transmitters in accordance with the conditions determined by the regulation of the Ministry of Health, Czech Republic no. 37/2001 Coll. Parts of pressure transmitters, which come into direct contact with drinking water, were used for the verification. The pressure transmitters are of an identical material composition, the casing type A (TMG xxx A3x and TMVG xxx A3) differs from the type B (TMG xxx Cx and TMVG xxx C3x) by the shape of the connecting pipe union and the location of the sensor. The casing type C (TMG xxx Cx and TMVG xxx C3x) differs from the type A in the type of thread. The type B (with a front membrane) is suitable for less viscous little liquid or very polluted media and differs by the shape of the connecting pipe unit and the position of location of the casing face. (The letter x in the type marking of a pressure transmitter specifies technical requirements according to the producer's diagram.)

As a base for the verification of pressure transmitters, series TMG xx7 and B3x, C3x, we received from you:

- Samples of components of pressure transmitters, which come into contact with drinking water
- Basic properties of rubber materials
- Technical ceramics – corundum ceramics
- Standard ČSN 41 7348 Steel 17 348
- Stainless steel, class 17.245
- Declaration and certificate about identical material composition of the pressure transmitter casing A (marked TMG xxx A3x) with the transmitter casing B (marked TMG xxx B3x)
- Information for customers "Pressure transmitter with a ceramic measuring membrane, series A"

## **The method of verification**

During the verification of health and sanitary safety of pressure transmitters materials were respected their real interfaces which come into contact with drinking water in operating conditions. For this reason, the pressure transmitter components were put to the leach test as one integral sample. The range of analyses for verification of single materials was chosen on the basis of the

reported chemical composition of single parts of the pressure transmitters. Detailed information about the laboratory testing is stated in the laboratory record "Analysis for evaluation of health and sanitary safety" no. 2100/OM/01, which is a part of our opinion.

### **Assessment of the analyses results**

Single results of the laboratory analyses obtained from the leaches of the verified material samples are assessed in the way that the concentration of the particular monitored quality indicator does not exceed 1/10 of the corresponding limit concentration, determined by the regulation of the Ministry of Health, Czech Republic no. 376/2000 Coll.

The laboratory analyses made for verification of pressure transmitters (third leach) – total organic carbon, styrene, chrome, cadmium and aluminium are under the limit of detection. The content of manganese did not exceed the determined limit concentration.

### **Conclusion**

Based on the results of laboratory analyses for verification of the health and sanitary safety of pressure transmitters materials, series TMG xxx A3x, TMG xxx B3x, TMG xxx C3x, TVMG xxx A3x, TVMG xxx B3x, TVMG xxx C3x, it is possible to agree with their use in contact with drinking water, because they fulfil the requirements determined by the regulation of the Ministry of Health, Czech Republic no. 37/2001 Coll.

### **Notice**

Our opinion is related only to materials which were the subject of our verification. Identical conclusions from this verification can be used with other products of the same type only if they correspond with the tested samples by us in chemical composition and properties.



Regional health officer

MUDr. Marta Tmějová

Annexe:

Report "Analysis for evaluation of health and sanitary safety", no. 2100/OM/01

