Temperature compensated pressure switch

This product monitors the pressure and density of SF_6 gas that is used as an electric insulating medium.

This product is installed in Gas Insulated Switchgear (GIS) and Gas Circuit Breaker (GCB) of nuclear / thermal / hydraulic power stations to monitor the pressure and density of SF_6 gas that is an electric insulating medium for 24 hours. In the present world in which a great deal of attention is attracted to global warming and environmental destruction, the demand for this product to monitor the emission of SF_6 gas specified as greenhouse effect gas to the air is gradually increasing both in Japan and overseas.

◆Features of this product

1. Automatic compensation for pressure change due to temperature

This product is provided with a function to compensate pressure change of SF_6 gas due to temperature by bimetal to keep the indicated pressure at almost the same level as the rated pressure. This temperature compensating mechanism permits detecting a pressure drop due to SF_6 gas leakage correctly.

2. Strong structure against shocks, vibrations, and pulsations

With the inert liquid filled in this switch, high lubrication, anti-corrosion, and anti-vibration effects can be provided in the internal mechanism.
The product is excellent in weather resistance and can be used both indoors and outdoors. Its fully sealed structure is free from oil leakage.

3. Maintenance-free and long life

Since this product was released, it has been used in various severe environments of high-temperature, high-humidity, and cold districts, having an actual service results for 10 years or more. In addition, this product requires no maintenance after it is installed.

4. Reliable quality based on our original technology and completely made in Japan

We guarantee an indication accuracy of ±1% F.S (= full scale) (at 20ºC). In addition of the standard model, we can supply specific models for cold districts which were developed by our excellent technology so that they could be operated in an environment of -50ºC. All their components are worked, assembled, and inspected in Japan.

◆Example for setting pressure

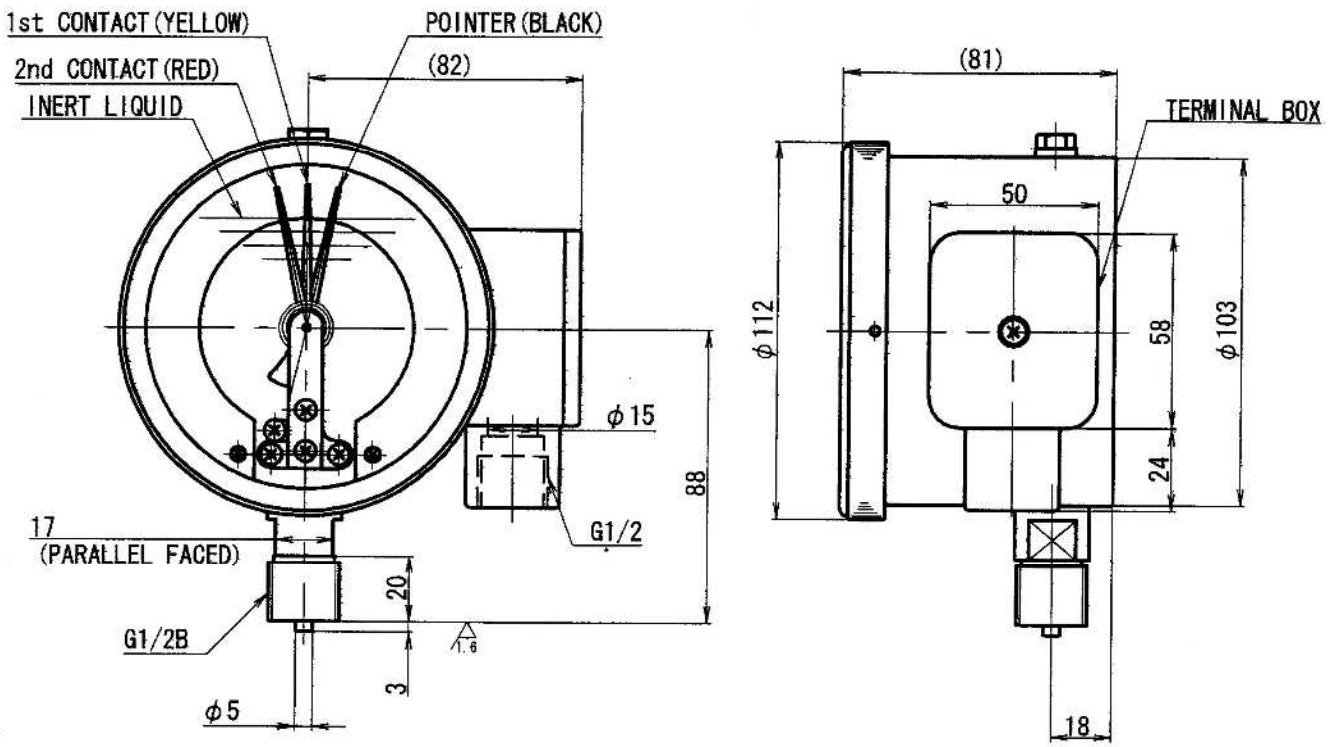
Unit: $kgf/cm^2 \cdot G$ Setting temperature: 20ºC

Rated pressure	1st contact (lower limit)	2nd contact (lowest limit)
3.5	3.0 ±0.2	2.5 ±0.2
5.0	4.5 ±0.2	4.0 ±0.2
5.5	5.0 ±0.2	4.5 ±0.2
6.0	5.5 ±0.2	5.0 ±0.2

◆Main specifications

1) Ambient temperature	:	−20ºC ～+40ºC
2) Temp. compensation range	:	−20ºC ～+60ºC
3) Indication accuracy	:	±1% F.S. (at +20ºC)
4) Scale range (example)	:	− 76cmH ～ 10 kgf/cm²•G
5) Contact mechanism	:	Magnet assist type (2 lower limits)
6) Contact capacity	:	more than 0.05A at 250V AC, more than 0.1A at 125V AC (inductive breaking current) more than 0.13A at 250V DC, more than 0.26A at 125V DC (non-inductive breaking current)
7) Max. allowable gas leakage	:	1 x 10^{-9} Pa•m³/s or less
8) Operating environment	:	Both indoors and outdoors
9) Weight	:	Approx. 1.7 kg

◆ External dimensions



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Rev.2010.04