

SPECIFICATION

1. Mechanical:

- Capacity: 0-5K, 8K, 10K, 15K PSI, gage pressure;
- Proof Pressure: 150% of rated range;
- Pressure Media: Mud, drilling fluids, viscous slurry;
- Pressure port: $\frac{1}{2}$ "-14NPT, M20x1.5, Customizable^{[Note1][Note2]};
- Enclosure material: 17-4PH (Ansi 630 stainless steel);
- Diaphragm material: 304L;
- IP grade: IP68;
- Surface condition: Matt gray^[Note3];
- Weight: 371g nominal;
- Recommended installation torque: (35~50)Nm;

2. Electrical:

- Excitation: 9 Vdc to 30 Vdc;
- Output: 4 mA to 20 mA, two-wire;
- Max. loop resistance: 950Ω@30V decreasing linearly to 0Ω@9V^[Fig.1];
- Resolution: Infinite;
- Response time: ≤2.5 mSec to reach 90% of FSO;
- Electrical Connection: Wear-resistant PUR sheathed cable;
- Wiring code: Red= + Excitation, Black= + Signal(4-20mA), Shield pigtail=Case ground;

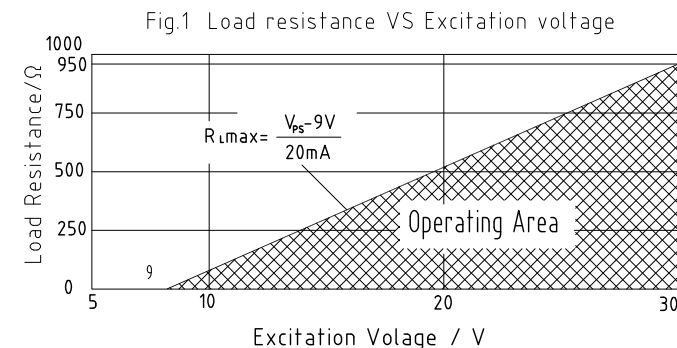
- Insulation resistance: > 100 MΩ to case ground;
- Circuit protection: Reverse polarity protected, 58Vdc TVS's (Transient Voltage Suppressors) are configured between circuit ground and case ground;

3. Accuracy:

- Accuracy: 0.5%FSO^[Note4];
- Non-Linearity: 0.5%FSO (Best Fit Straight Line Method);
- Non-Repeatability: ±0.1%FSO;
- Hysteresis error: 0.1%FSO;
- Long-term stability: ±0.1% FSO per year;

4. Environmental

- Pressure medium temperature range: -40°C to 105°C;
- Storage temperature limits: -40°C to 105°C;
- Thermo drift of sensitivity: ±0.025%FSO Per °C;
- Error due to combined effect of shock, vibration and acceleration shall be less than 0.01% of FSO per g;
- Vibration: 20g(RMS), 10Hz to 200Hz;
- Shock: 500g@1mS, half-sine acceleration.



Note1. When the product is installed, the thread must be sealed by winding Teflon tape or thread glue (direct contact with the mounting hole is forbidden, so as to avoid thread-sticking);

Note2. Touching the flush diaphragm with any hard tool (e.g. a screw driver) is forbidden, otherwise it is likely to cause permanent damage to the sensor, there would be a reusable protection cap along with each individual when the product is distributed.

Note3. The surface has a matt gray color due to a glass-bead blast process;

Note4. Accuracies stated are expected for best-fit straight line for all errors, including linearity, hysteresis & non-repeatability thru zero.

Note5. The product is equipped with a diaphragm protective cap, which must be re-installed after the product is used to avoid injury to the diaphragm

UNLESS OTHERWISE SPECIFIED
TOLERANCE UNLESS NOTED:
X. ± 0.3
.X ± 0.2
.XX ± 0.1
ANGLES: ± 0.5°
3.2/
FINISH ALL SURFACES
DEBURR
BREAK ALL SHARP EDGES
CONCENTRICITY OF DIA'S WITH
COMMON C.L.
DIMENSIONS ARE IN MM UNLESS
OTHERWISE SPECIFIED
OTHER ENTERPRISE STANDARDS
MAY APPLY

	BY	DATE
DRAWN		2019/7/14
CHECKED		
APPROVED		
WEIGHT	371g	
FIRST ANGLE PROJECTION		



Beijing HaiZhuoLiKang Technology Co., Ltd.

Flush-Diaphragm Mud Pressure Sensor for MWD

SIZE	DWG NO.	MATERIAL	REV.
A4	XXXX	17-4PH	INIT. REL.
SCALE	DO NOT SCALE	SHEET: 1 OF 1	