

# PRODUCT OVERVIEW

# LEVEL MEASUREMENT

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MAC Sensor Co.,LTD.



## L704 Fuel Series Submersible

Petrol/ Gasoline and Diesel Pressure Level Transmitters

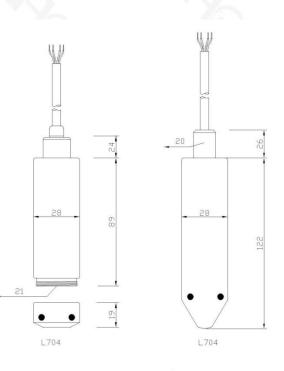


L704 series digital pressure level transducer with high stable and reliable, which use USA GE pressure CHIPS and high accurate circuit board into the stainless steel housing. Integrated construction and standard signal provide the user easy and convenient application in the local working place. The special cable connects with housing, can be immerged into the media for a long time. L704 series digital pressure level transducers are a high accuracy digital and intellectual product development by HOLYKELL to meet the market needs of worldwide. L704 designed incorporating with monolithic computer technology and sensor digital conversion technology, which core component adopts 24-bit AD MCU micro-processor to ensure high quality of the transducer relaying on its strong function and high speed operation capacity. The overall designed framework is to meet the requirements of increasingly enhanced industrial site application with a view to reliability, stability, high accuracy and the product also features strong function and without manually operating device to ensure good interaction. Application digital signal processing technology is made for good disturbance immunity. It's also feature zero point automatic stable follow up capacity and temperature automatic compensation.

# $\operatorname{II}$ . Specifications:

			L704						
	-10-0.05Bar50 Bar Opti	-10-0.05Bar50 Bar Optional							
-		Zero point adjustable for RS485 output							
-	150% F.S.				10				
Parameter:-10-0.05Bar50 Bar OptionalPressure Range:-10-0.05Bar50 Bar OptionalProgrammable:Zero point adjustable for RS485 outputOverload:150% F.S.Burst Pressure300% F.S.Accuracy:(Linearity $\leq \pm 0.5\%$ F.S; $\leq \pm 0.25\%$ F.S; $\leq \pm 0.15\%$ F.SHysteresis Repeatability)Including non-lin., rep. and hys. OptionalLong Stability:Standard: 0.1%F.S $\pm 0.05\%$ /YearMax: 0.15%F.S $\pm 0.05\%$ /YearTemp Compensation:-10°C~60°CWorking Temp:-20°C~70°CStorage Temp:-30°C~100°CTemperature Compensation:-10°C~60°CMedium compatible:Compatible with 316 Stainless Steel or Titanium Alloy or PTFE materials.Output:4-20 mA or 4-20 mA or 4-20mA +HART (2 wires)V/0-2.5V(3 wires)(4 wires)(6 wires)	16								
Accuracy:(Linearity	≤ ±0.5%F.S; ≤ ±0.25%F	.S; ≤ ±0.15	%F.S	Ton.	9				
• • •									
Long Stability:	Standard: $0.1\%$ F.S $\pm 0.05\%$	/Year	Max: 0.15%F.S	$\pm$ 0.05%/Year					
Temp Compensation:	10°C~60°C								
Working Temp:	-20℃~70℃								
Storage Temp:	-30℃~100℃								
Temperature Compensation:	-10℃~60℃								
Medium compatible:	Compatible with 316 Stain	less Steel or	litanium Alloy o	or PTFE materia	als.				
Output:	4-20 mA or	0-5V/0.5-4	.5V/1-5V/0-10	RS485	RS485+4-20mA				
	4-20mA +HART (2 wires)	V/0-2.5V	(3 wires)	(4 wires)	(6 wires)				
Power Supply:	12~ 36 Vdc	12~ 30Vd	c/5Vdc/12Vdc	10~ 30 Vdc	12~ 30 V DC				
Baud rate:	9600 (standard), 2400,4800,19200, 115200 by customized.								
Data format:	1 start bit, 8 data bits, 1 stc	op bit							
Odd and even calibration:	None								
Sampling rate:	10 points/second to 1 point/50 minutes								
Resolution:	20 bit 10ppm								
Loading Resistance:	Standard 99 channels and I	Standard 99 channels and Max 255 chaneels							
Insulate resistance:	>100M Ω @50V dc		(C)						
Zero Temp. Drift:	Typical: 0.05%FS/°C		Max: 0.1%	FS/°C					
FS Temp. Drift:	Typical: 0.05%FS/°C		Max: 0.1%FS/°C						
Electronic connection:	Fixed cable and water proc	of IP68		5 m					
Mounting Type:	None (standard type), G1/4	4" male, 1/4'	'NPT male/Fem	ale, others by (	customized.				
Response time:	≤1ms								
Pressure Type:	Gauge pressure, absolute r								
Certificate approving:	Exia IICT6 and CE Certificat	Exia IICT6 and CE Certificate.							
EMC Standard:	electromagnetic radiation:	EN50081-1/-	2						
	electromagnetic susceptibi	lity:EN50082	2						
Lighting Proof:	None (standard type); Air	conducts wi	thstand voltage	8000V Shell a	and Cable conduc				
	withstand voltage 4000V. T	his function	is customized.						
Water Proof:	IP68								
Temperature Range:	-30 to 70 Degree C (by customized)								
Temperature type:	PT100, K, J type thermocouple customized.								
Weight:	Net weight is about 0.30KG, Full Packing weight is about 0.5KG (Not Include Cable)								

# III. Dimension and Drawing:



### $I\!V.$ Electronic Wires Connection:

#### 4-20 mA and 4-20mA+HART 2 wires connection:

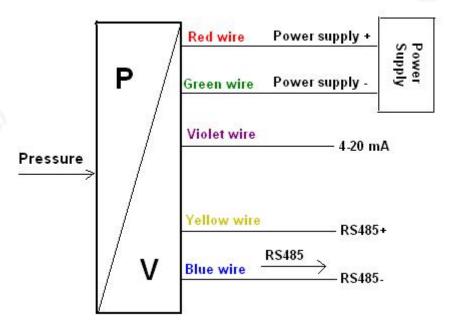
Wires No.	Wires Color	Electronic Connection
1	Red wire	Power Supply V+
2	Green wire 4-20 mA output +	
5	Black wire	Shield wires to ground

#### RS485 4 wires connection:

Wires No.	Wires Color	Electronic Connection		
1	Red wire	Power Supply V+		
2	Green wire	Power Supply V-		
3	Yellow wire	RS485 +/A		
4	Blue wire	RS485 -/B		
5	Black wire	Shield wires to ground		

#### Double signal 6 wires connection:

Wires No.	Wires Color	Electronic Connection
1	Red wire	Power Supply V+
2	Green wire	Power Supply V-
6	Violet wire	4-20 mA output
3	Yellow wire	RS485 +/A
4	Blue wire	RS485 -/B



 $V\,.$  Part Number Code Table For Pressure Range:

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	000	-1-0	016	0-1.5	031	0-10	047	0-125
	001	-1-1	017	0-1.6	032	0-12	048	0-150
	002	-1-9	018	0-1.7	033	0-15	049	0-200
	003	-1-10	019	0-1.8	034	0-16	050	0-250
	004	-1-16	020	0-1.9	035	0-20	051	0-300
	005	-1-20	021	0-2.0	036	0-25	052	0-350
	006	-1-25	016	0-2.1	037	0-30	053	0-400
	007	-1-30	022	0-2.2	038	0-35	054	0-450
	008	-1-35	023	0-2.3	039	0-40	055	0-500
	009	-1-40	024	0-2.5	040	0-50	056	0-600
	010	-1-65	025	0-3	041	0-60	057	0-700
	011	0-0.5	026	0-4	042	0-65	058	0-800
	012	0-1.0	027	0-5	043	0-70	059	0-1000
	013	0-1.1	028	0-6	044	0-80	060	0-10000
	014	0-1.2	029	0-7	045	0-90	061	0-15000
	015	0-1.3	030	0-8	046	0-100	Х	Customized

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# VI.Order Information

P/N Selection	<b>L704</b> (Model)	3	D1	027	F	0	5	G
Output	3= 4-20mA 4= 0.5- Ratiometric 5= 0-5V 6= 1-5V 7= 0-10V 8= 0.5-4 9=RS485 Modbus							
Measuring Medium	D1=Diesel, d D2=Diesel, d D3=Diesel, d D4=Diesel, d X=Others Liq	lensity 0.83 lensity 0.85 lensity 0.86	y By Customized					
Pressure Measurment	See last pages Pres range code adhere							
Pressure Unit	H=m H2O B	=Bar P=Psi	F=m Fuel		13			
Accuracy	0=0.5%F.S.	1=0.25%F.S.	2=0.15%F.S.					
Cable length		2= Cable 2M 5= Cable 5M					•	
Pressure type	G=Gage S=Sealed	A=Absolute						

# **Stock Parts**

Example: L704-3D1-027F-05G