WF153A 0.4BG L4 AT&R

1、INTRODUCTION

WF153A is a analog voltage output pessure sensor,The device consists of a MEMS pressure sensor die mounted on a 3.6x 3.8 mm PCB protected by a metal cap. The WF153A can be delivered in a highly-linear version giving a linear output voltage directly proportional to the applied pressure.

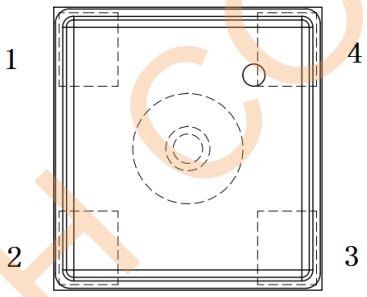
Features：

- Range： 0~40Kpa
- Linearity：±0.3%FS
- Working Temperature：-40℃~125℃
- Size：3.6×3.8mm

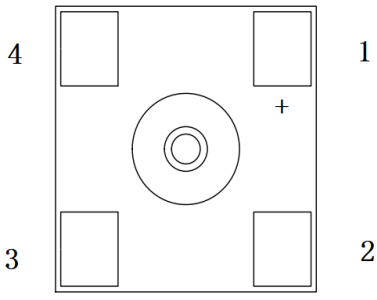
APPLICATIONS：

- AMedical and healthy equipment
- Digital display meter
- Industrial controls
- Pressure sensor systems

2、PIN DEFINITION



TOP VIEW



BOT VIEW

Pin	Name	Function
1	VO+	Positive ouput of Wheatstone bridge
2	VI+	Supply voltage of Wheatstone bridge
3	VO-	Negative ouput of Wheatstone bridge
4	VI-	Grond

3. SPECIFICATION

Unless otherwise specified,measurements were taken on 5V& 25℃

Parameter	Min.	Typ.	Max.	Unit.	Remark
Working Voltage		5	10	V	
Working Current		1	2	mA	
Pressure Range	0~40			kPa	1
Pressure Type	Gage			/	
Zero Output Offset	-15	0	+15	mV	
FS Output Span	60	75	90	mV	
Bridge resistance	4.0	5.0	6.0	kΩ	2
TCO	-30	20	+70	μV/℃	3
TCS	-0.25	-0.20	-0.15	%FS/℃	3
Linearity	-0.3		+0.3	%FS	4
Pressure Hysteresis	-0.2		+0.2	%FS	
Over Pressure	2X			FS	
Burst Pressure	4X			FS	
Working Temp	-40		+125	℃	
Storage Temp	-50		+150	℃	

Remark：

1、Pressure Range customizable

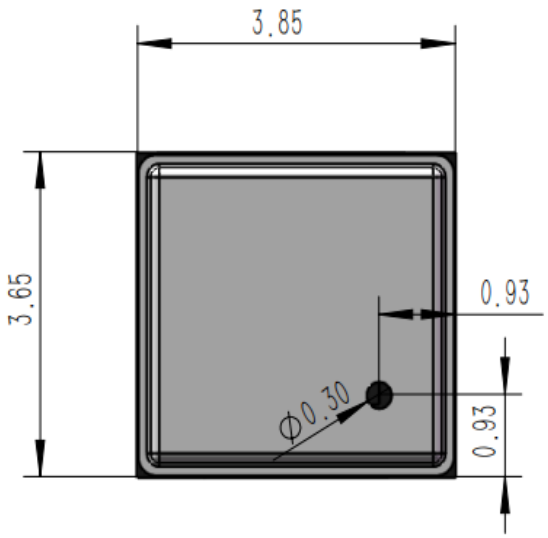
2、Bridge resistance customizable

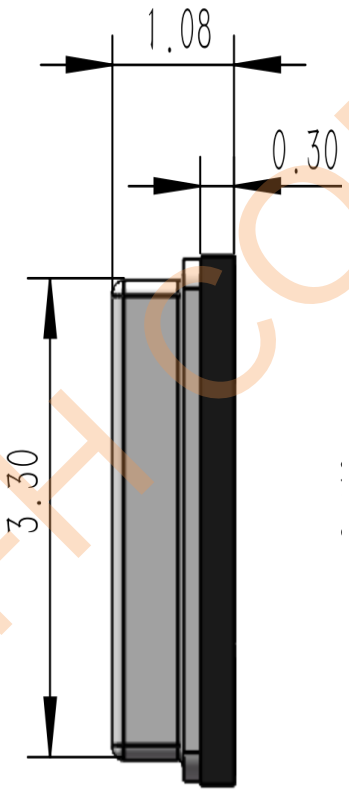
3、0~80℃

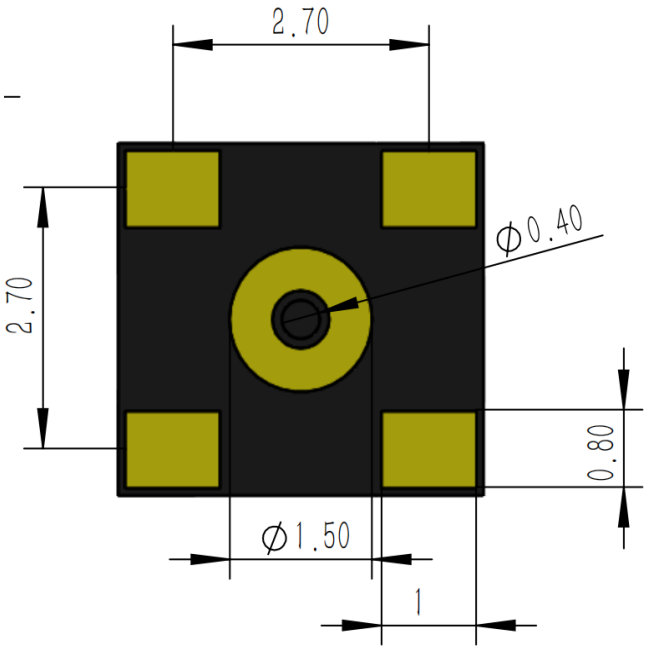
4、Defined as best fit straight line

4. PRODUCT DIMENSIONS

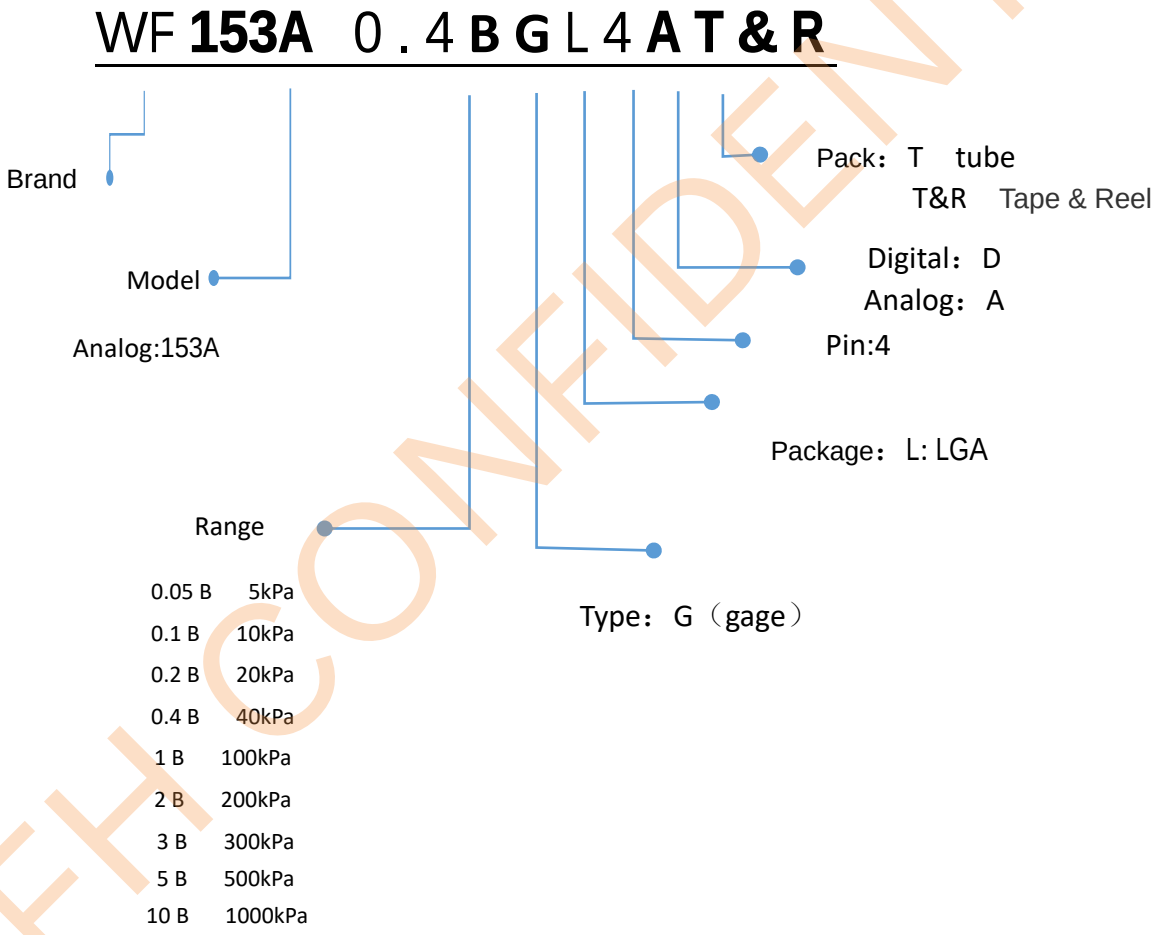
Unit: mm







5. ORDER INFORMATION



6. SOLDERING RECOMMENDATION

The recommended soldering profile is shown in Figure 1 , followed by a description of the profile features in Table 3 .

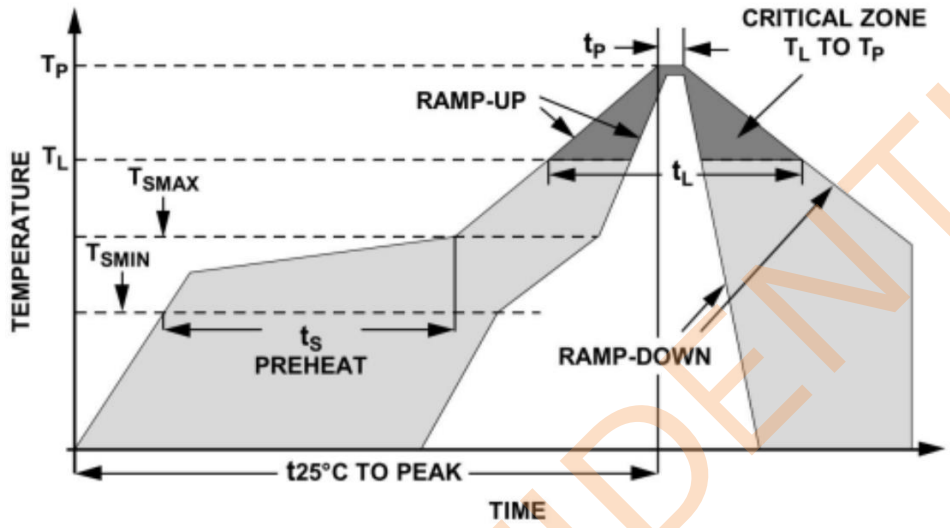


Figure 1 Recommended Soldering Profile

Table 3 Recommended Soldering Profile

Profile Feature	Pb-Free
Average ramp-up rate(TsMax to TP)	3℃/sec max.
Preheat: -Temperature Min.(TsMin) -Temperature Max.(TxMax) -Time.(TsMin to TsMax)(Ts)	 150℃ 200℃ 60 sec to 180 sec
Time maintained above: -Temperature(TL) -Time(tL)	 217℃ 60 sec to 150 sec
Peak temperature(TP)	250℃
Time within 5℃ of actual peak temperature(TP)2	20 sec to 40 sec
Ramp-down rate	4℃/sec max.
Time 25℃ to peak temperature	8 minutes max.