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Haijun

HSS
HEAVY TRANSDUCER GPT3 INTRODUCTION

Honeywell

— HONEYWELL HEAVY TRANSDUCER INTRODUCTION FOR INDUSTRY

Oil Filled Silicon



13 mm Series



19 mm Series



Mips Series

Glass micro-melt



GPT3 Series

Advanced Thick Film



MLH Series

Backside Sensing Silicon



PX2 Series



PX3 Series

Bonded Strain Gauge



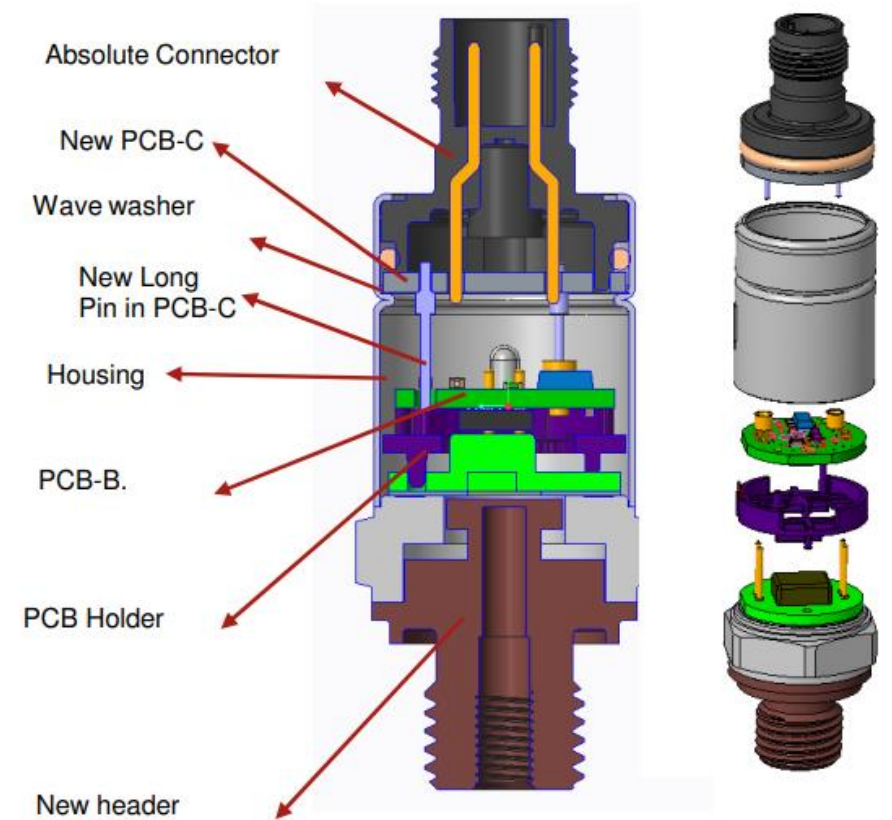
SST Line



SPT Series

二. GPT3 SERIES--Glass micro-melt transducer Overview

The glass micro-melt pressure sensor is made by melting glass at a temperature above 500°C and sintering silicon strain gauges on the back of a 17-4PH stainless steel sensing elastic body. After the elastic body is deformed under pressure, an electrical signal is generated. The cavity is machined as a whole from 17-4PH stainless steel.



≡. GPT3 PERFORMANCE AND BENEFITS

PERFORMANCE

- Fully media isolated
- Pressure range: 10MPa - 70MPa (sealed gage)
- Output: 4-20mA, Ratiometric and Regulated
- Fully calibrated and temperature compensated
- Total Error Band: $\pm 1.5\%$ FSS @ $-40\text{ }^{\circ}\text{C} \sim 125\text{ }^{\circ}\text{C}$
- EMC: Heavy Industrial Level
- Response time:
- Insulation resistance: >100 Mohm, 500 Vdc

BENEFITS

Multiple configuration possibilities with the right combination of features provide flexibility of use in the application; configurability on standard ports, pressure reference type, and pressure range and output

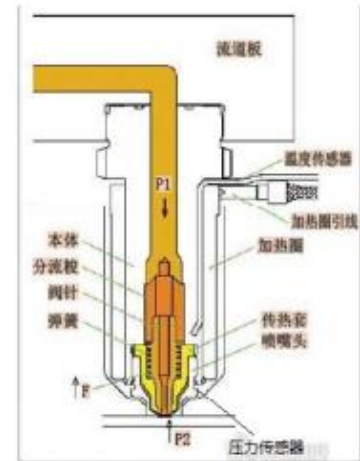
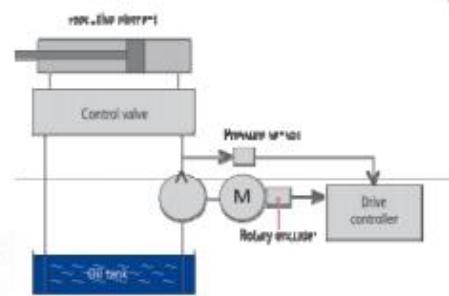
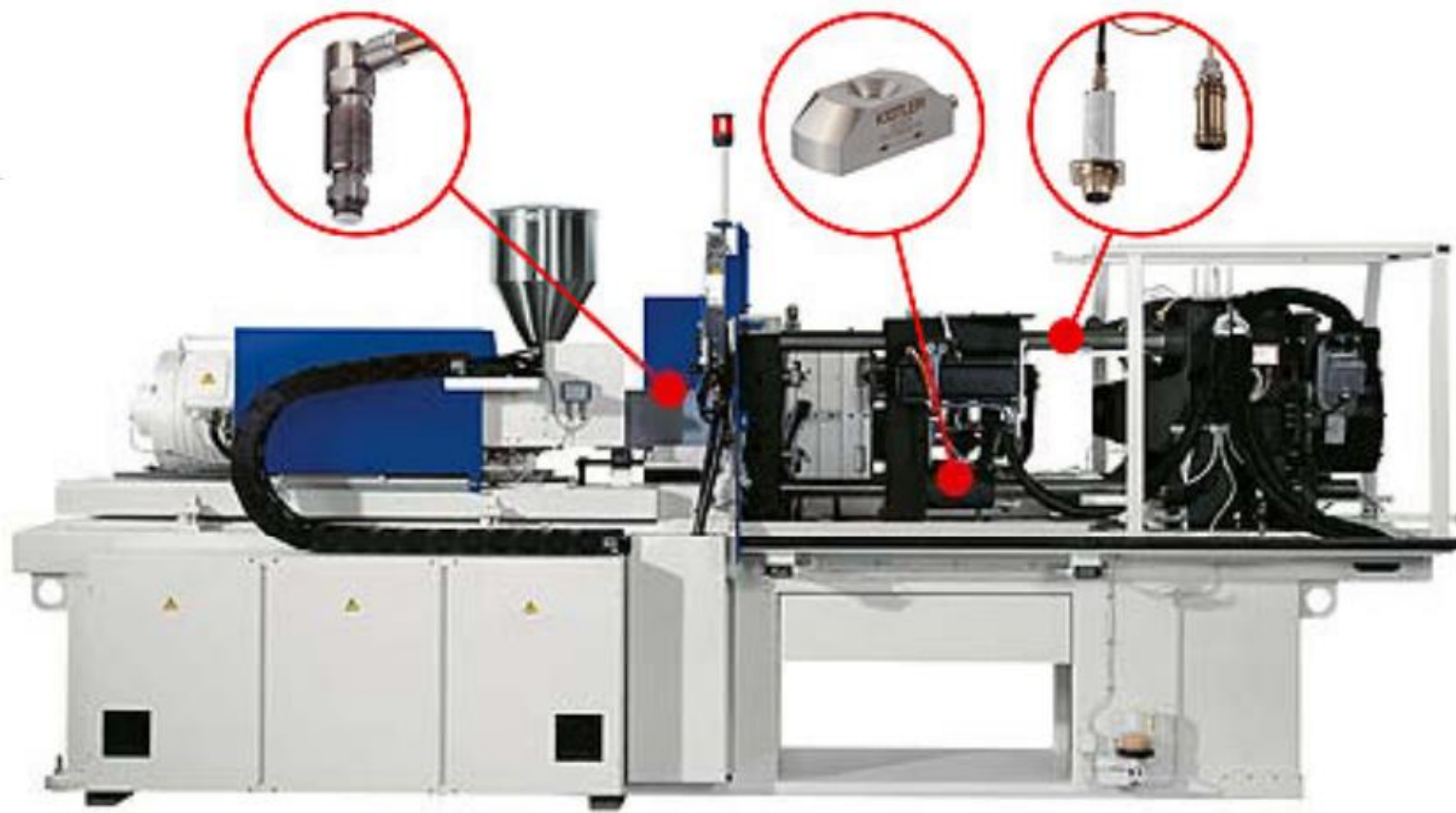
Provides the tough environmental specs needed, including insulation resistance and dielectric strength, and EMC performance.



四. COMPARISON

Characteristic	GPT3	MBS1250	PT9541	M5100
Accuracy				
Total Error Band2	±0.5%FSS, ±0.25%FSS Optional	0.5%FSS	0.55%FSS	0.25%FSS
Operating temperature range	-40 °C~125°C	-40 °C~125°C	-25 °C~90°C	-40 °C~125°C
Compensated temperature range	-40 °C~125°C	-40 °C~125°C	-25°C~90°C	-20 °C~85°C
Response time	<1ms	0.5ms		1ms
EMC	HEAVY INDUSTRY	HEAVY INDUSTRY	HEAVY INDUSTRY	HEAVY INDUSTRY
Vibration/SHOCK	20g/100g	20g/100g	20g/50g	20g/200g
LIFE	10M	10M	50M	10M

五. Application1: Plastic Injection Machin



- Pressure sensors is one of the key sensor to ensure the precision and keep good productivity in plastic injection molding machines.
- Pressure sensor use to be installed in nozzle, hot runner, cooling runner and mold housing to check the pressure during the injection, packing, and metering processes . More description in notes.
- Normally, mold supplier use two pressure sensor for process and mold housing pressure monitor. It will ensure the injection process and increase molding process precision. And it will help supplier to increase their profit and value.

五. Application2: Transportation and Potential Industries

- Heavy equipment and alternative fuel vehicles

- ◆ System pressure
- ◆ Fluid power, flow and level
- ◆ Pneumatics
- ◆ Light hydraulics
- ◆ Brake and engine oil pressure
- ◆ Transmission
- ◆ Truck/trailer air braking



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