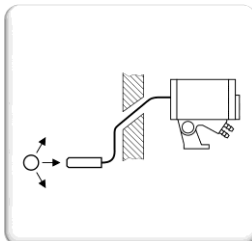


Stato-Sonde

Z56



High sensitivity : 300 °C

High temperature optic

Metallic sheath to protect the fibre

Different fibre lengths / optics



Presentation and operating principle

The **Stato-Sonde Z56** is a Hot Metal Detector for material at temperatures over 300 °C.

Thanks to its optical fibre, it is able to detect products even in areas with high ambient temperature or in difficult areas due to physical obstructions, limited space, steam etc... Its rugged design enables the Stato-Sonde Z56 to withstand the very severe environmental conditions of the steel industry or rolling mills or continuous casting machine.

The infrared radiation emitted by the hot product is collected by the optic, transmitted through the optical fibre and send to the photosensitive element. The signal is processed by the electronic circuit which outputs the detection signal.

Features

The Stato-Sonde Z56 is composed of three major elements:

- **Sensor head**
 - 3 different detection angles: **4°** or **12°** or **Spot** 10 mm at 0.5 m (very small precise detection point).
 - standard optic type **N** or optic with water cooling type **C** or optic with water cooling and air purging and additional hood/glass type **CA**.
 - an **external diaphragm** is available for applications with very hot product and background
- **Optical fibre:**
 - Fibre optic bundle with flexible stainless steel protection, length from 2 to 25 m
 - Available with additional protective sheath. Air can be supplied at the electronic unit. The air flow through the sheath and optics keeps the optical fibre and lens assembly at lower temperature.
- **Electronic Unit**
 - Sensitivity adjustment potentiometer
 - Multicolour LED indicator: Product Presence, low detection margin, alarm
 - **Test function**

Specifications of Optic



Optic	Z56-...-.../S	Z56-...-.../4	Z56-...-.../12
Detection field			
Operating temperature	-20 °C to 250 °C (0 °F to 480 °F) up to 400 °C (752 °F) with fibre with metallic sheath type G, air purging 40 l/min at 1 bar up to 500 °C (930 °F) with water-cooling, water at about 25 °C (77 °F), 1-2 bar and 1-2 l/min		
Air purging with G fibre Ait purging with F fibre	About 40 l/min @ 1 bar (1,5scfm @ 14 psi), instrument air (clean, dry, no oil) or nitrogen About 10 l/min @ 0.1 bar (0,3scfm @ 2psi), instrument air (clean, dry, no oil) or nitrogen		

Detection temperature (1) °C [°F]	% (2)	Fibre Length (Z56-...-.../...)						
		2 m	3 m	5 m	9 m	12 m	15 m	25 m
4 and 12° without diaphragm	100%	300 [580]	310 [590]	320 [610]	340 [640]	350 [660]	360 [680]	370 [700]
	20%	360 [680]	370 [690]	380 [720]	400 [760]	420 [780]	430 [810]	440 [830]
	5%	420 [790]	430 [810]	440 [830]	470 [880]	490 [910]	500 [940]	520 [970]
Spot	100%	430 [800]	440 [820]	450 [850]	480 [900]	500 [930]	510 [950]	530 [990]
	20%	520 [960]	530 [980]	550 [1010]	580 [1080]	600 [1110]	620 [1150]	640 [1190]
	5%	610 [1120]	620 [1150]	640 [1190]	680 [1260]	710 [1310]	730 [1350]	760 [1400]

(1): at sensitivity max 7 and product emissivity > 0.9
(2): percentage of field of view filled by hot product

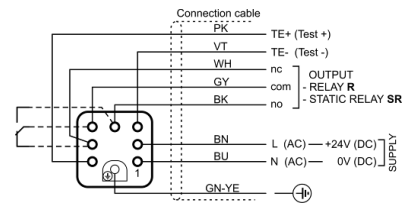
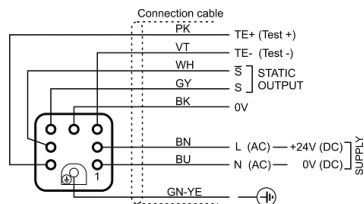
For applications with very hot product and background, a diaphragm is provided and can be inserted in front of the optic to reduce the sensitivity by about 100°C.

Fibre	Z56-...-.../F	Z56-...-.../G
Type	Fibre alone	Fibre + stainless steel sheath protection-Air conduit
Diameter	10 mm	22 mm
Length	2, 3, 5, 9, 12, 15, 25 m	

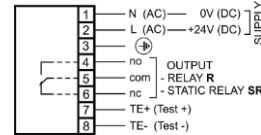
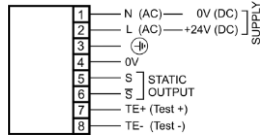


Connection

Z56-•C



Z56-•B



Reference for order

Stato-Sonde Z56 - ••••• / ••••• / ••••• L=•

Mounting	Connection	Output	Fibre Length	Fibre protection	Detection angle	Optic	Power input	Cable length
L Bracket	B Terminal Block	SP Static	2 2 m 3 3 m 5 5 m 9 9 m 12 12 m 15 15 m 25 25 m	F Fibre alone 	S Spot 4 4° 12 12°	N Standard 	115-230 VAC 24 VDC	2 2 m 3 3 m 5 5 m 8 8 m
		SR Static Relay				C Water cooling 		
J Mounting stand & cooling jacket	C Connector with 2m cable	R Relay	G Fibre with stainless steel sheath protection and air conduit 	CA Water cooling + air + hood/glass 				
Electronic Unit			Fibre		Optic			

Example: Z56-JC-SR/5G/4CA 115-230V L=2: Z56 with mounting stand and cooling jacket, connector with 2m cable, Static Relay output, optical fibre length 5 m protected in metallic sheath, optic 4° in water cooling unit with air and additional hood/glass, power supply 115-230 VAC.

Accessories

- Battery powered radiant Bar **BR4000**
- Stainless steel Heat Shield, for **Z56-J-••** models ; Ref: 7093146



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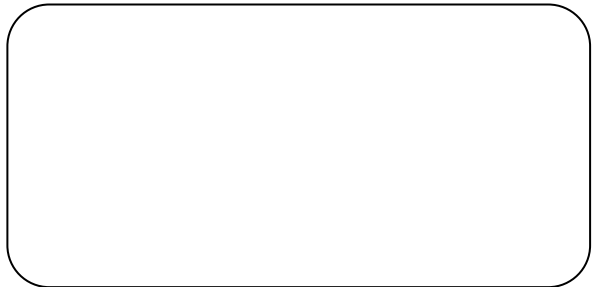
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