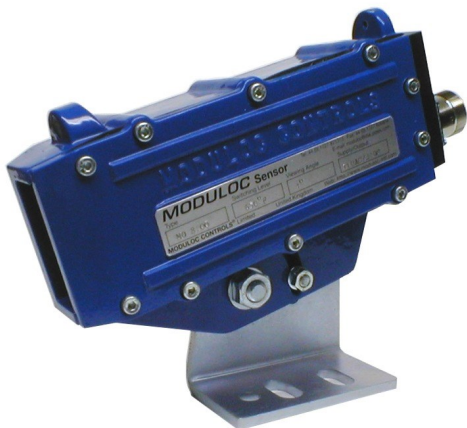




DTF6000 SERIES OPTICAL POSITION SCANNER

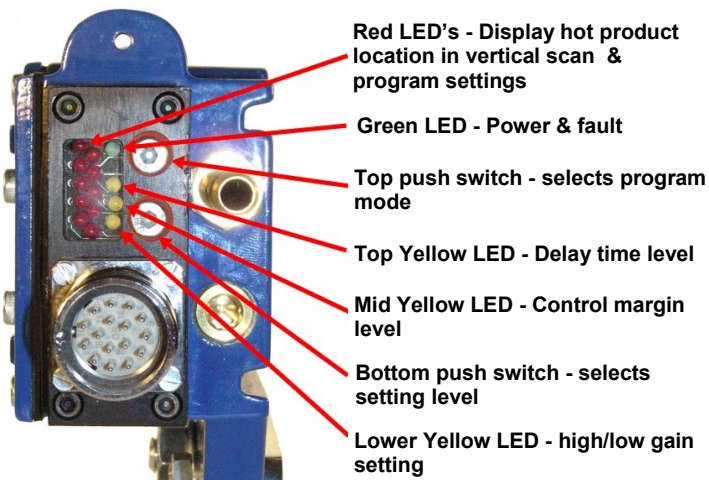
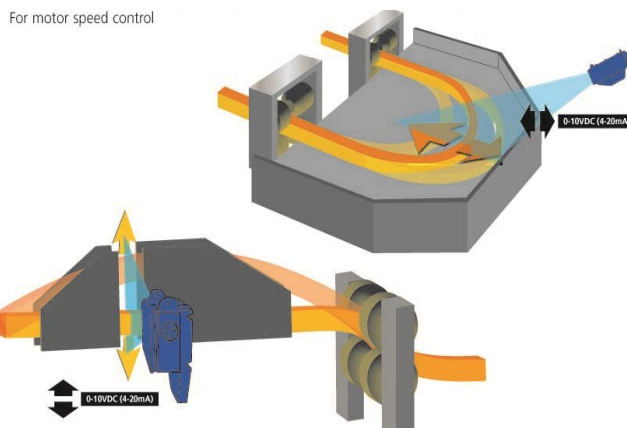


- Scanned view options of 18°, 30° and 45° deg provide analog output of hot bar loop position via multiplexed scanned InGaAs diode array.
- LED Bar Display shows product pass line
- Multiple product presence digital outputs
- Monitors hot bar down to 330 deg C
- Automatic Gain via control margin evaluation.
- Robust IP66 housing with gunsight alignment
- Analog options– 4-20mA, 0-10vdc
- Built-in water coolant chamber with non-instrument air purge facility.

Description

The Trailfinder operates via internal microprocessor and a multiplexed scanned InGaAs photodiode array. It provides an analog output of the hot bar loop position as well as display its position via bar display. Various analogue options are available as well as multiple digital outputs provided.

Whilst normal Scanners purely detect the product above a pre-set threshold the intelligent Trailfinder operates via a programmable control margin ensuring precise position output regardless of the product's size and temperature and is not adversely affected by lens contamination, hot scale, metalwork or steam. Consequently it provides very stable performance in difficult and variable environments such on Mill Stands can defeat other Scanners.



- Red LED's - Display hot product location in vertical scan & program settings
- Green LED - Power & fault
- Top push switch - selects program mode
- Top Yellow LED - Delay time level
- Mid Yellow LED - Control margin level
- Bottom push switch - selects setting level
- Lower Yellow LED - high/low gain setting

Being an intelligent digital device, the Trailfinder's response time may be precisely set to accommodate black spots, steam/water or hot scale in its field of view without detriment to its performance. Detects the product edge precisely and repeatability regardless of the product size and changes in temperature.

The Trailfinder operates via the internal 40 segmented diode array scanned in 2 ms for exceptionally fast output. Internal filtering blocks unwanted visible light. Multiple digital outputs accommodate most users needs for hot bar detection.

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DTF6000 SERIES OPTICAL POSITION SCANNER

Enclosure Specifications

Housing: Aluminum AL6, Oven baked blue paint
Housing Rating: IEC IP66, DIN 89011
Weight w/o Cable: 1.9 Kg
Connector: IP65 Plug/Socket
Cable Length: 2 M

Air & Water Specifications

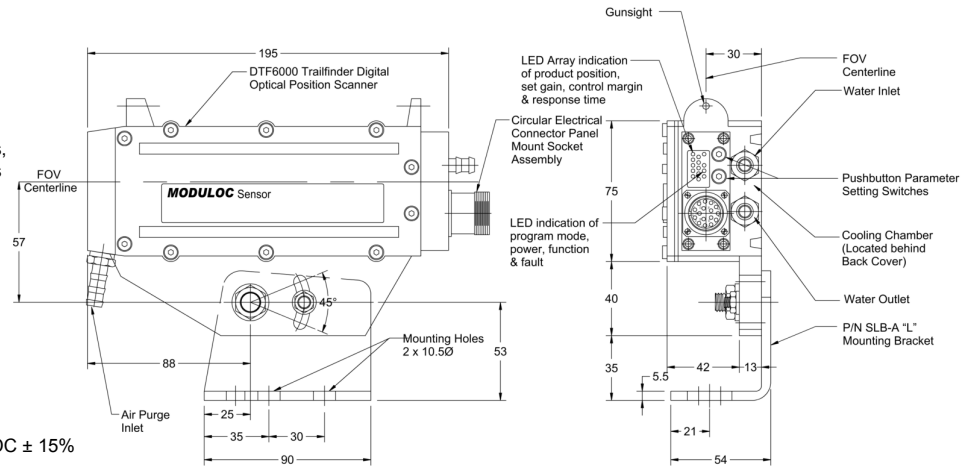
Air Pressure: 1 cu ft./min at 5 PSI for normal Conditions, non-instrument dry air and 0-15 PSI for severe conditions
Water Pressure: 5 to 10 PSI
Water Volume: Regulate between 0.2 - 0.3 liters/min.
Water Temp.: For Ambient Temperature up to 80°C use ambient water below 20°C.
 For Ambient Temperature up to 90°C use water chilled to 5°C.

Part Number Specifications

DTF6000-98-RTO-A

Scanned View: -6008 18° Degree
 -6015 30° Degree
 -6033 45° Degree
Supply Voltage: -98 110 VAC ± 15% 50/60 Hz or 24 VDC ± 15%
 -97 110 VAC ± 15% 50/60 Hz
 -95 220 VAC ± 15% 50/60 Hz
Cooling: -A Air Cooled & Air Purged
 -D Water Cooled & Air Purged

Dimensions



Performance

Model	DTF 6008	DTF 6015	DTF 6022
Vertical Field of View	18 degrees	30 degrees	45 degrees
Vertical Resolution	40 Bits	40 Bits	40 Bits
Horizontal Field of view	2 degrees	3 degrees	4 degrees
Reproducibility	Resolution	Resolution	Resolution

Technical Info

Product Presence Outputs (3 total)	Cradle Relay, SPNO, 250 VAC, 8A Rating NPN & PNP Outputs 400 mA, 24 V, 2A peak Opto-isolated Output 300 V, 150 mA Rated	Supply Voltage	24VDC ±10% Optional 110vAC - 240VAC
		Power Consumption	2 Watts
Analog Output	According to Order 0 -10 VDC or 4-20mA	Operating Temperature	-10°C to +45°C without cooling +2°C to 65°C with (20°C) water cooling
Linear resolution	±0.2% of full scale	Humidity	Max 90% RH (non condensing)
Response time	10 milliseconds	Storage Temperature	-20°C - +50°C
Product Temperature Limit	Minimum 330°C (626°F) Maximum 1200°C (2192°F)	Self Check	Continuous automatic self check & remote self check facility
Sensing Elements	InGaAs (IR filter removes visible spectrum)	Array Scan Time	2 mS

EU & USA Wire Diagram

Pin	EU & USA	Function/Rating
(1)	Brown	+24 VDC Supply
(2)	Blue	0 VDC Line
(3)	Red	PNP Transistor Output
(4)	White	NPN Transistor Output
(5)	Orange or Grey/Pink according to cable	Analogue Output * VDC - WRT-Ground, 4-20mA - WRT Yellow
(6)	Yellow	Analogue Output * 0-10 VDC Output
(7)	Pink	Self Test (Connect to pin 5)
(8)	Black	Opto-Isolated Collector
(9)	Light Blue or Red/Blue according to cable	Opto-isolated Emitter
(10)	Violet	Cradle Relay 8 Amp, 240 VAC rated
(11)	Grey	Cradle Relay 8 Amp, 240 VAC rated
(12)	Green	Earth/Ground (0-10VDC and PNP Ground)
	Yellow/Green	Chassis Ground

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