

超音波感應器

Maxcess (Fife)





WEB WIDTHS CHANGE. YOUR SENSOR SHOULDN'T HAVE TO

Increase uptime, line speed and profits with the new Digital DSE-45 Wideband sensor from Fife.

Controlling web width variation, working in harsh environments and guiding multiple webs is easy when you have the right sensor for the job.

With a manual sensor, an operator must manually reposition both sensors, increasing downtime while decreasing profits.

The DSE-45 requires no repositioning with web width changes, increasing uptime, throughput and profits.



GENERAL SPECIFICATIONS

Part Number

DSE-45 Ultrasonic Sensor

Power Required

+12 to +48 VDC

Output Signal

Analog: 0 to 20 mA
Digital: Modbus/TCP over Ethernet

Class

IP65

Sensor Signal Source

Ultrasonic at 300 KHz

Certification

CE

Proportional Band Width

66 mm (2.6 inches)
107 mm (4.2 inches)
178 mm (7.0 inches)
311 mm (12.2 inches)
515 mm (20.3 inches)

Temperature Range

0° to 60° C (32° to 140° F)

Linearity

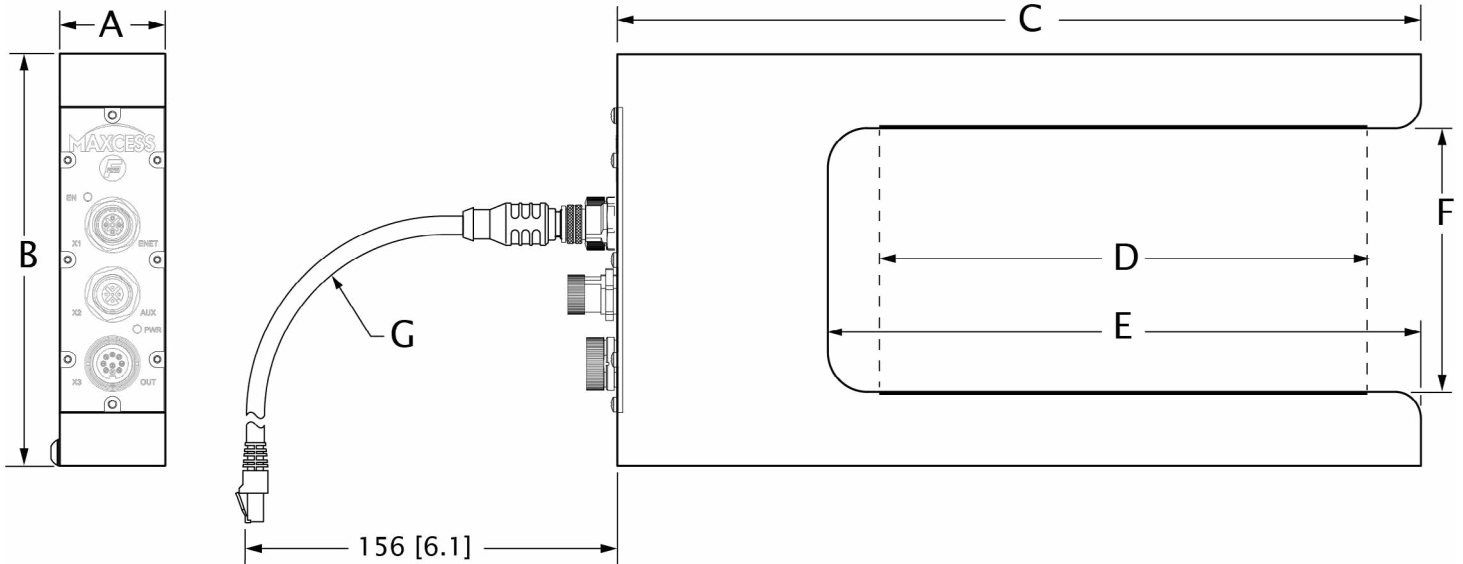
0.37% (over entire sensor band width)

KEY FEATURES

- No repositioning needed for web width changes
- IP65 rating for use in harsh environments
- Ability to track up to 16 web edges or 8 webs, reducing the number of sensors needed
- Industry 4.0 connectivity for performance data monitoring and automation
- Either-edge and web width detection
- 5 models – proportional band width ranges from 66 to 515 mm (2.6 to 20.3 inches)
- Efficient maintenance – transducers can be replaced independently
- Part of a complete family of sensors to increase efficiency and accuracy where web widths and materials change often

DSE-45 WIDEBAND ULTRASONIC SENSOR

DSE-45 CONNECTIONS & DIMENSIONS



Dimensions shown in mm (inches)

MODEL NUMBER	A WIDTH	B HEIGHT	C LENGTH	D BAND WIDTH	E THROAT	F GAP	G* CABLE RADIUS (MINIMUM)
DSE-45-7	40 (1.6)	156 (6.1)	193 (7.6)	66 (2.6)	113 (4.5)	100 (3.9)	90 (3.5)
DSE-45-11	40 (1.6)	156 (6.1)	234 (9.2)	107 (4.2)	154 (6.1)	100 (3.9)	90 (3.5)
DSE-45-18	40 (1.6)	156 (6.1)	305 (12.0)	178 (7.0)	225 (8.9)	100 (3.9)	90 (3.5)
DSE-45-31	40 (1.6)	156 (6.1)	438 (17.2)	311 (12.2)	358 (14.1)	100 (3.9)	90 (3.5)
DSE-45-52	40 (1.6)	156 (6.1)	642 (25.3)	515 (20.3)	562 (22.2)	100 (3.9)	90 (3.5)

* The minimum bend for output and auxiliary cables is less.
The minimum space required for the optional Ethernet cable is 156 (6.1).



**NORTH, CENTRAL
AND SOUTH AMERICA**
Tel +1.405.755.1600
Fax +1.405.755.8425
sales@maxcessintl.com
www.maxcessintl.com

INDIA

Tel +91.22.27602633
Fax +91.22.27602634
india@maxcessintl.com
www.maxcess.in

EUROPE, MIDDLE EAST AND AFRICA

Tel +49.6195.7002.0
Fax +49.6195.7002.933
sales@maxcess.eu
www.maxcess.eu

JAPAN

Tel +81.43.421.1622
Fax +81.43.421.2895
japan@maxcessintl.com
www.maxcess.jp

CHINA

Tel +86.756.881.9398
Fax +86.756.881.9393
info@maxcessintl.com.cn
www.maxcessintl.com.cn

KOREA, TAIWAN AND SE ASIA

asia@maxcessintl.com
www.maxcessintl.asia



Because of its compact size and temperature stability, the digital ultrasonic sensor DSE-41 is the ideal solution for guiding clear films and most opaque webs.

The DSE-41 uses ultrasonic waves to measure the lateral position of the web material. The proportional band allows significant guide point adjustment. The DSE-41 is often used in pairs for centre guiding when web width variations are limited. The DSE-41 is insensitive to ambient light and it's used to guide most of the opaque material and clear films. When used with acoustically permeable material a calibration between the sensor and the material is necessary.

It is possible to operate the DSE-41 with either a supply voltage of 12V or 24V. The output signal would automatically be switched over in that case.

In 12V supply mode the sensor provides an output signal from 0 to 10mA and can be connected to all available Fife web guide processors.

In 24V supply mode the sensor supplies an output signal between 4 and 20mA and can be easily connected to a PLC as well.

The DSE-41 has a built-in LED display, visible from both sides, and shows directly on the sensor information about the operating status like for instance the existence of the supply voltage, position of the edge of the web inside the field of view or error messages.

An optional digital production data acquisition to Fife D-MAXE controller extends the range of applications for the DSE-41 inside the digital network environment. Additional sensor data can be provided to other hardware equipment if the Fife D-MAXE is linked appropriately to the network.



GENERAL SPECIFICATIONS

Proportional band

7,6 mm

Source

Ultrasonic
150kHz

Weight

340g

Operating temperature

5° - 60°C

Protection class

IP54

Power supply

10 - 28V

Output signal

0 - 10 mA
4 - 20 mA optional
digital data exchange RS-485

Linearity

5% maximum error (at 10% to 90% of signal)

Plane change

5% maximum error (at 20% to 80% of gap width)

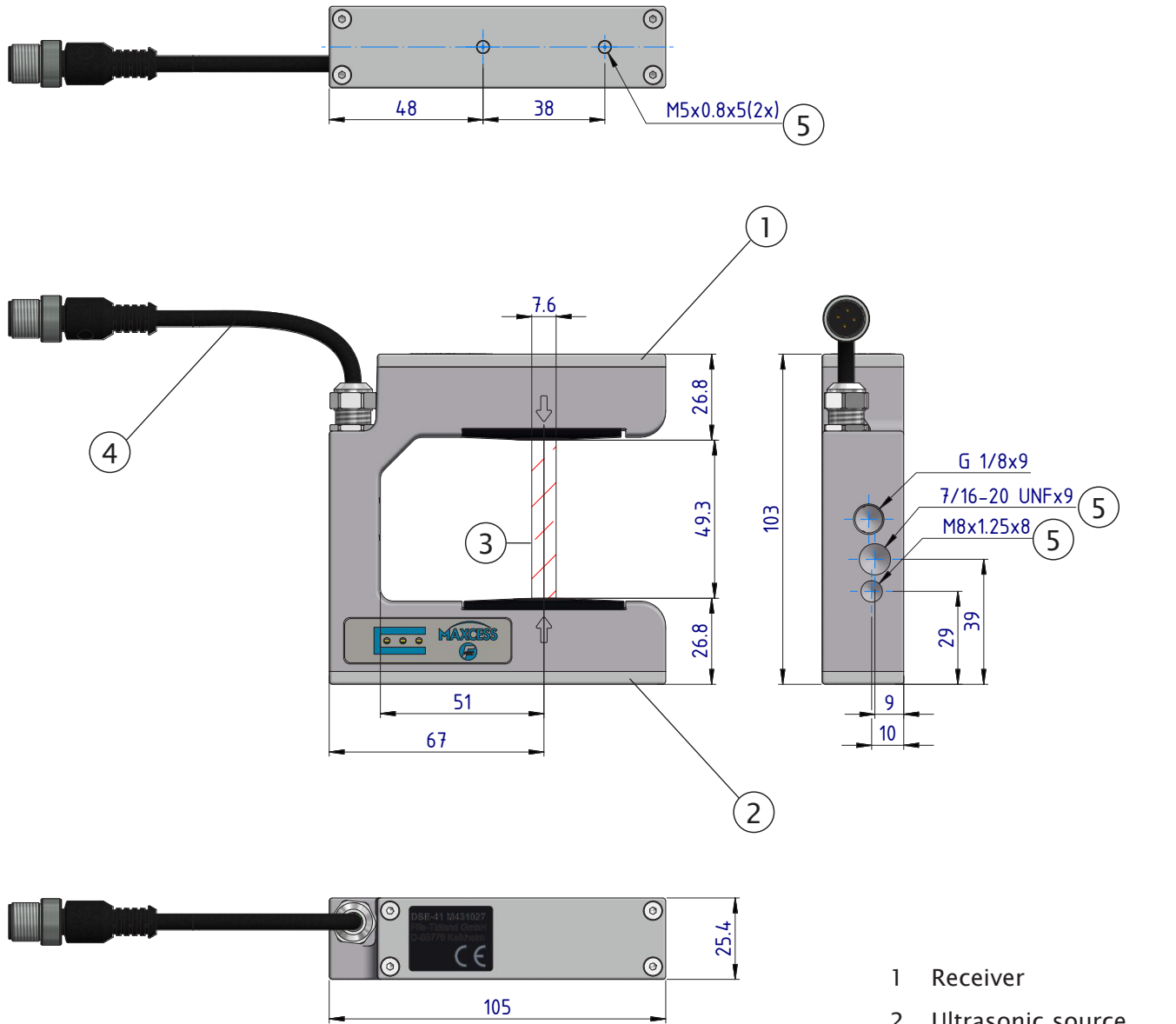
Temperature drift

5% maximum error (at 10°C to 40°C)

KEY FEATURES

- Insensitive to ambient light
- Insensitive to electrostatic discharge
- Temperature stabilized
- Low power consumption
- It doesn't affect photosensitive paper or film
- Suitable for thin and clear film or foil
- Can be used for new guiding systems as well as for an upgrade of existing systems
- Fast, easy and robust mounting due to multiple mounting brackets and sensor positioners
- Can be connected to all available Fife web guide processors

DIMENSIONS



- 1 Receiver
- 2 Ultrasonic source
- 3 Proportional band
- 4 Connection cable
- 5 Threading for sensor bracket

Dimension shown in mm.



EUROPE, MIDDLE EAST
AND AFRICA
Tel +49.6195.7002.0
sales@maxcess.eu
www.maxcess.eu

NORTH, CENTRAL
AND SOUTH AMERICA
Tel +1.405.755.1600
sales@maxcessintl.com
www.maxcessintl.com

CHINA
Tel +86.756.881.9398
info@maxcessintl.com.cn
www.maxcessintl.com.cn

JAPAN
Tel +81.43.421.1622
japan@maxcessintl.com
www.maxcess.jp

INDIA
Tel +91.22.27602633
india@maxcessintl.com
www.maxcess.in





由于其紧凑的尺寸和工作温度稳定，数字式超声波感应器DSE-41是透明薄膜和大多数不透明卷材的理想纠偏产品。

DSE-41使用超声波来测量纠偏中的卷材横向位置。比例带可实现显著地调整纠偏点。当卷材边缘位置变化不超过感应器感应范围时，DSE-41也可以成对用于卷材对中纠偏。DSE-41对环境光不敏感，可用于大多数不透明的材料和透明膜的纠偏中。检测透声材料时，需进行校准。

DSE-41电源电压支持12V或24V。在这种情况下，输出信号将自动切换。

在12V供电模式下，感应器提供0到10mA范围内的输出信号，可以连接到所有现有的Fife卷材纠偏控制器。

在24V供电模式下，感应器提供4到20mA范围内的输出信号，可以轻松地直接与PLC结合使用。

DSE-41具有一个内置的LED显示器，可从两侧查看内置显示器，并直接在感应器上显示有关工作状态的信息，例如电源电压的存在，视野中卷材边缘位置或故障信息。

与Fife D-MAXE控制器连接使用，可选的数字式生产数据采集功能扩展了DSE-41感应器在数字网络环境中的应用范围。如果Fife D-MAXE成功连接到网络，则可以向其他硬件设备提供额外的感应器数据。

规格总览

比例带宽

7.6mm

信号源

超声波150kHz

重量

340g

工作温度

5° -60° C

防护等级

IP 54

电源要求

10-28 V

输出信号

0-10mA

4-20mA可选

数字数据交换RS-485
(仅D-MAXE控制器)

线性度

相对误差最大5%

(在信号的10%至90%范围内)

表面变化

相对误差最大5%

(在间隙的20%至80%范围内)

温度误差

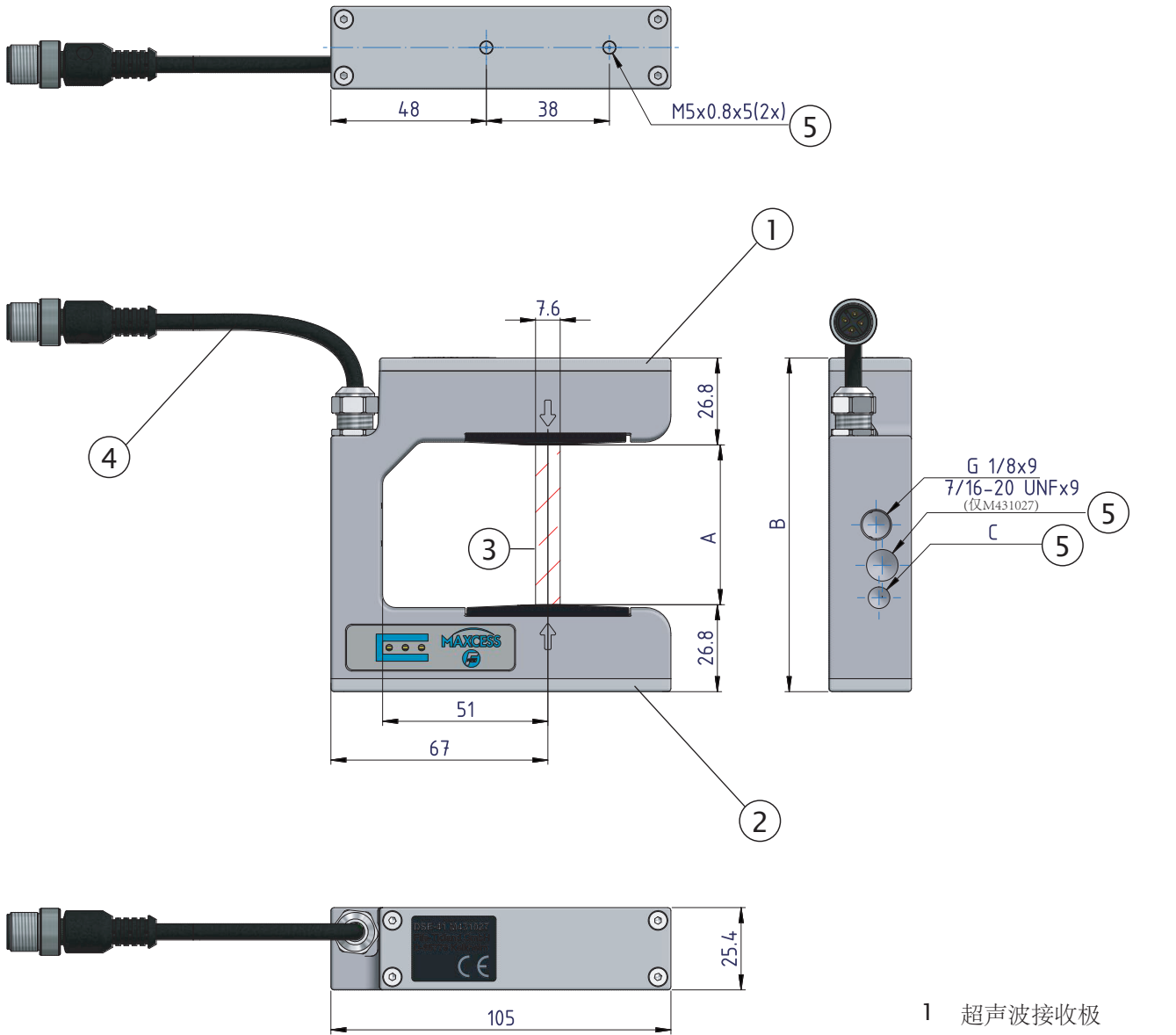
相对误差最大5%

(在10° C至40° C时)

主要特点

- 不受环境光线影响
- 不受静电放电影响
- 工作温度稳定
- 低功耗
- 对光敏纸/膜片不产生影响
- 适用于薄而透明的薄膜或金属箔材
- 可用于新的纠偏系统以及现有系统的升级
- 灵活的安装和定位组件可实现快速、简易的安装
- 兼容所有FIFE控制器

尺寸



- 1 超声波接收极
- 2 超声波发射极
- 3 比例带 (控制范围)
- 4 连接电缆
- 5 感应器安装支架螺纹

物料号	型号	A (mm)	B (mm)	C (mm)
M431027	DSE-41	49.3	103	M8*8
M447032	DSE-41-4	101	153	M8*6

尺寸以毫米为单位。



欧洲, 中东和非洲
Tel +49.6195.7002.0
sales@maxcess.eu
www.maxcess.eu

北美, 中南美洲
Tel +1.405.755.1600
sales@maxcessintl.com
www.maxcessintl.com

中国
Tel +86.756.881.9398
info@maxcessintl.com.cn
www.maxcessintl.com.cn

日本
Tel +81.43.421.1622
japan@maxcessintl.com
www.maxcess.jp

印度
Tel +91.22.27602633
india@maxcessintl.com
www.maxcess.in





The DSE-31 digital ultrasonic sensor is the smallest ultrasonic sensor available from Fife. Because of its compact size, light weight, and temperature stability, it is used to guide both clear films and most opaque webs.

The DSE-31 uses ultrasonic waves to measure the lateral position of the web material. The proportional band allows significant guide point adjustment. The DSE-31 is often used in pairs for centre guiding when web width variations are limited. The DSE-31 is insensitive to ambient light and it's used to guide most of the opaque material and clear films. When used with acoustically permeable material a calibration between the sensor and the material is necessary.

It is possible to operate the DSE-31 with either a supply voltage of 12V or 24V. The output signal would automatically be switched over in that case.

In 12V supply mode the sensor provides an output signal from 0 to 10 mA and can be connected to all available Fife web guide processors.

In 24V supply mode the sensor supplies an output signal between 4 and 20 mA and can be easily connected to a PLC as well.

The DSE-31 has a built-in LED display, visible from both sides, and shows directly on the sensor information about the operating status like for instance the existence of the supply voltage, position of the edge of the web inside the field of view or error messages.

An optional digital production data acquisition to Fife D-MAXE controller extends the range of applications for the DSE-31 inside the digital network environment. Additional sensor data can be provided to other hardware equipment if the Fife D-MAXE is linked appropriately to the network.

GENERAL SPECIFICATIONS

Proportional band

7,6 mm

Source

Ultrasonic
150 kHz

Weight

200 g

Operating temperature

5° - 60°C

Protection class

IP54

Power supply

10 - 28V

Output signal

0 - 10 mA
4 - 20 mA optional
digital data exchange RS-485

Linearity

5% maximum error (at 10% to 90% of signal)

Plane change

5% maximum error (at 20% to 80% of gap width)

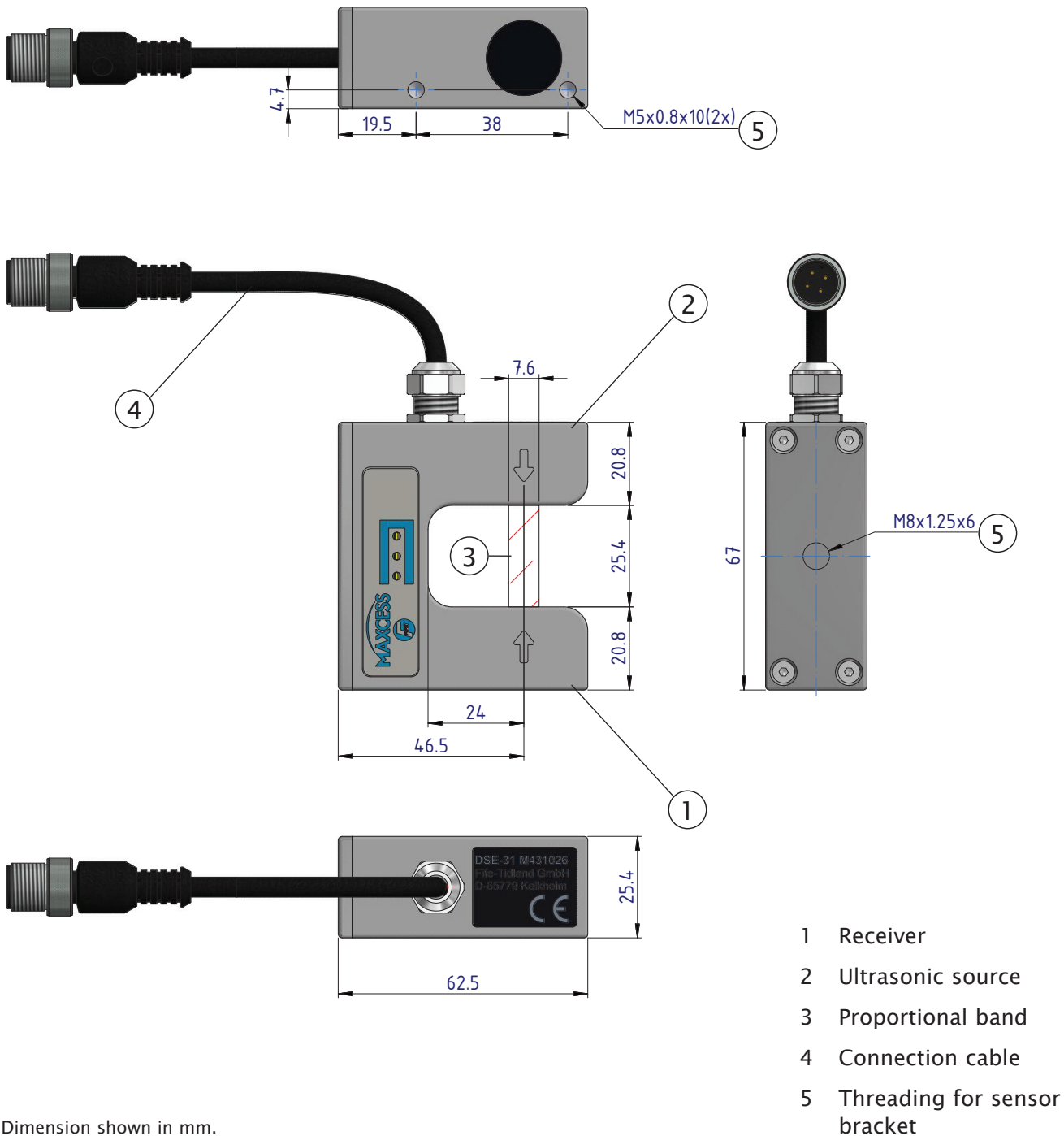
Temperature drift

5% maximum error (at 10°C to 40°C)

KEY FEATURES

- Insensitive to ambient light
- Insensitive to electrostatic discharge
- Temperature stabilized
- Low power consumption
- It doesn't affect photosensitive paper or film
- Suitable for thin and clear film or foil
- Can be used for new guiding systems as well as for an upgrade of existing systems
- Fast, easy and robust mounting due to multiple mounting brackets and sensor positioners
- Can be connected to all available Fife web guide processors

DIMENSIONS



Dimension shown in mm.



EUROPE, MIDDLE EAST
AND AFRICA
Tel +49.6195.7002.0
sales@maxcess.eu
www.maxcess.eu

NORTH, CENTRAL
AND SOUTH AMERICA
Tel +1.405.755.1600
sales@maxcessintl.com
www.maxcessintl.com

CHINA
Tel +86.756.881.9398
info@maxcessintl.com.cn
www.maxcessintl.com.cn

JAPAN
Tel +81.43.421.1622
japan@maxcessintl.com
www.maxcess.jp

INDIA
Tel +91.22.27602633
india@maxcessintl.com
www.maxcess.in





DSE-31数字式超声波感应器是Fife提供的最小的超声波感应器。由于其紧凑的尺寸，重量轻和工作温度稳定，可用于透明薄膜和大多数不透明的卷材纠偏应用中。

DSE-31使用超声波来测量纠偏中卷材横向位置。工作范围（比例带）内可调整纠偏点位置。当卷材边缘位置变化不超过感应器范围时，DSE-31也可以成对用于卷材对中纠偏。DSE-31对环境光不敏感，可用于引导大多数不透明的材料和透明膜纠偏。检测透明材料时，需进行校准。

DSE-31电源电压支持12V或24V。在这种情况下，输出信号将自动切换。

在12V供电模式下，感应器提供0到10mA范围内的输出信号，可以连接到所有现有的Fife卷材纠偏控制器。在24V供电模式下，感应器提供4到20mA范围内的输出信号，可以轻松直接地与PLC结合使用。

DSE-31具有一个内置的LED显示器，可从两侧查看内置显示器，并直接在感应器上显示有关工作状态的信息，例如电源电压的存在，视野中卷材边缘位置或故障信息。

与Fife D-MAXE控制器连接使用，可选的数字式生产数据采集功能扩展了DSE-31感应器在数字网络环境中的应用范围。如果Fife D-MAXE成功连接到网络，则可以向其他硬件设备提供额外的感应器数据。



规格总览

比例带宽度

7.6mm

信号源

超声波
150kHz

重量

200g

工作温度

5° -60° C

防护等级

IP 54

电源要求

10-28 V

输出信号

0-10mA

4-20 mA可选

数字数据交换RS-485
(仅D-MAXE控制器)

线性度

相对误差最大5%

(在信号的10%至90%范围内)

表面变化

相对误差最大5%

(在间隙的20%至80%范围内)

温度误差

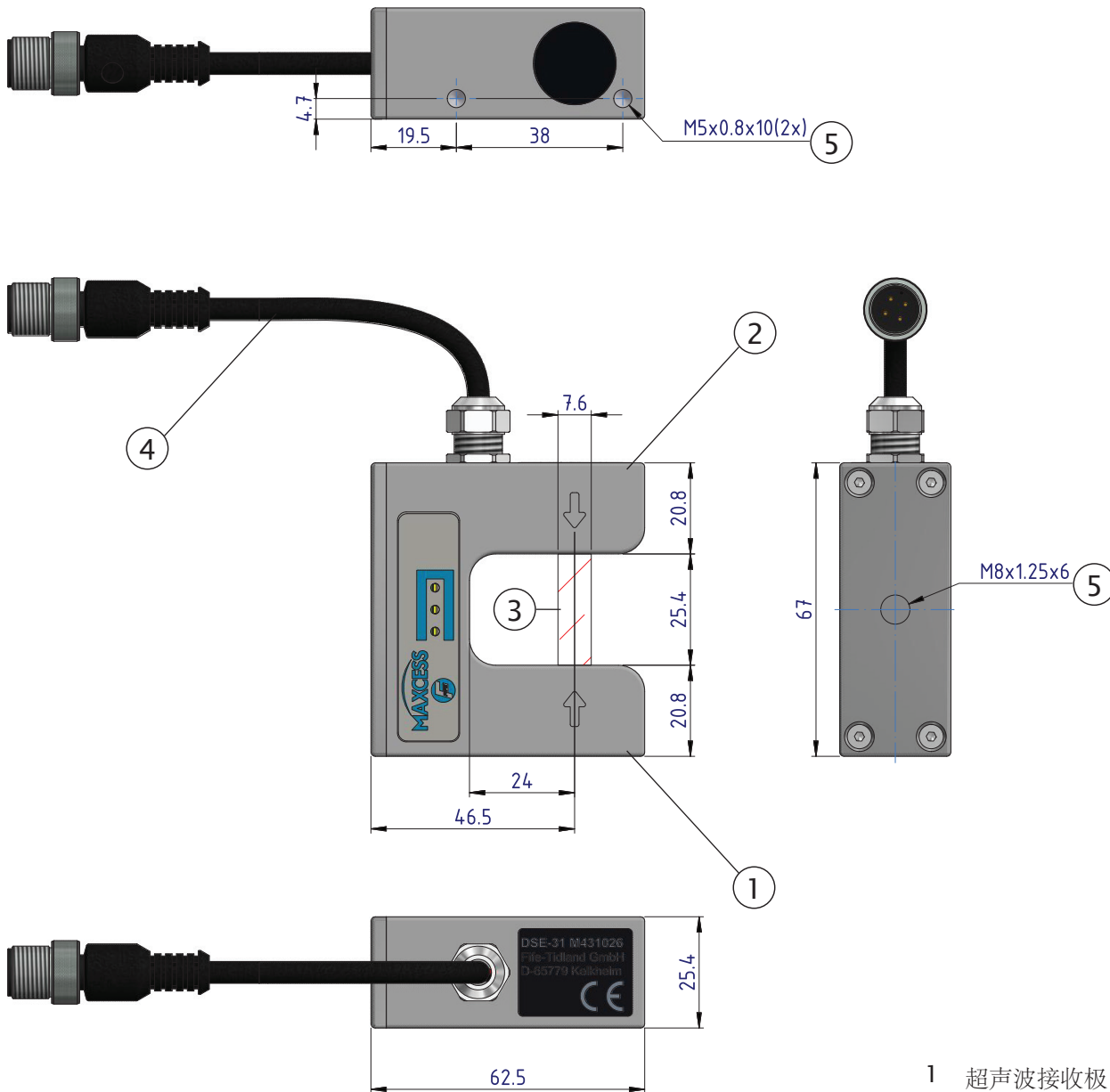
相对误差最大5%

(在10° C至40° C时)

主要特点

- 不受环境光线影响
- 不受静电放电影响
- 工作温度稳定
- 低功耗
- 对光敏纸/膜片不产生影响
- 适用于薄而透明的薄膜或金属箔材
- 可用于新的纠偏系统以及现有系统的升级
- 灵活的安装和定位组件可实现快速、简易的安装
- 兼容所有FIFE控制器

尺寸



- 1 超声波接收极
- 2 超音波发射极
- 3 比例带 (控制范围)
- 4 连接电缆
- 5 感应器安装支架螺纹

尺寸以毫米为单位。

MAXCESS

欧洲, 中东和非洲
Tel +49.6195.7002.0
sales@maxcess.eu
www.maxcess.eu

北美, 中南美洲
Tel +1.405.755.1600
sales@maxcessintl.com
www.maxcessintl.com

中国
Tel +86.756.881.9398
info@maxcessintl.com.cn
www.maxcessintl.com.cn

日本
Tel +81.43.421.1622
japan@maxcessintl.com
www.maxcess.jp

印度
Tel +91.22.27602633
india@maxcessintl.com
www.maxcess.in



MAXCESS

MAGPOWR



TIDLAND

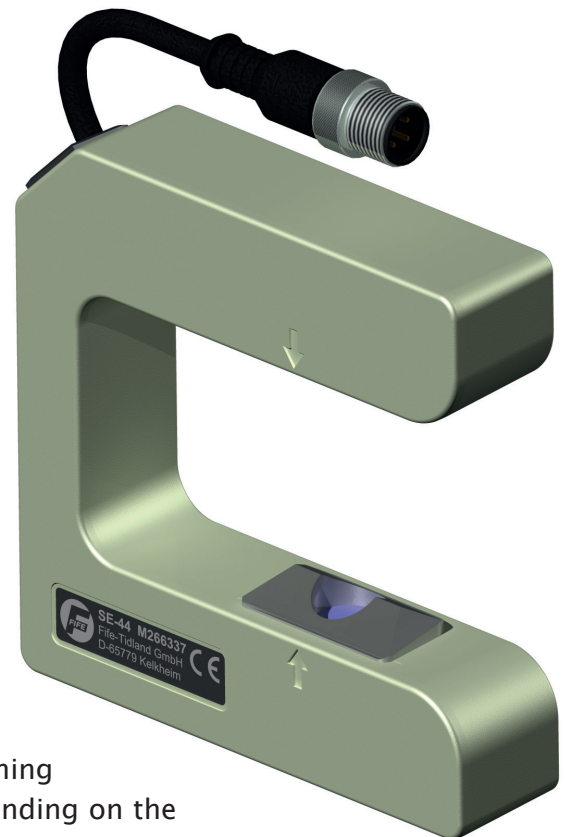
The sensor SE-44 uses ultrasonic sound to detect the web edge. Its light weight, small size, and insensitivity to ambient light make it ideal for most web guiding applications.

The SE-44 ultrasonic sensor measures the lateral position of the guided material. The sensor field of view (proportional band) is 10 mm, allowing significant guide point adjustment. The SE-44 is often used in pairs for center guiding when web width variations are limited. The SE-44 sensor can be used to control most opaque materials as well as transparent ones.

Fife offers a wide variety of sensor mountings and positioning assemblies for use with the SE-44 ultrasonic sensor. Depending on the application, standard or custom designed mounting brackets can be provided to ensure quick and easy installations.

The SE-44 can be used with any of our applicable guiding systems or as a retrofit/upgrade for existing systems.

The SE-44 can be connected to all available Fife web guide controllers.



GENERAL SPECIFICATIONS

Weight:

130g

Operating temperature:

0°– 60°C

Protection class:

IP40

Power supply:

10 to 15V

Output signal:

0 to 10mA

Linearity:

10% maximum error (at 10% to 90% of signal)

Plane change:

5% maximum error (at 45° angle between web and sensor)

Temperature drift:

7% maximum error (at 10°C to 50°C)

ESD protected:

designed to IEC/EN 61000-4-2

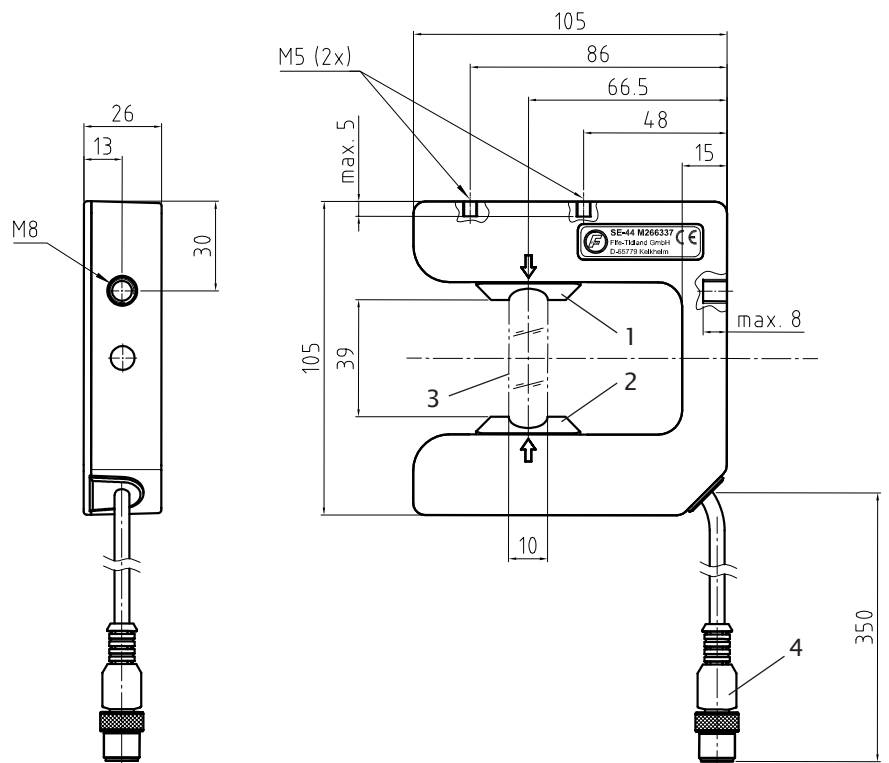
KEY FEATURES

- 10 mm proportional band
- Insensitive to ambient light
- Insensitive to electrostatic discharge
- Will not affect photosensitive paper/film
- Will sense the thinnest and clearest film
- Temperature stabilized
- Low power consumption
- Small and lightweight

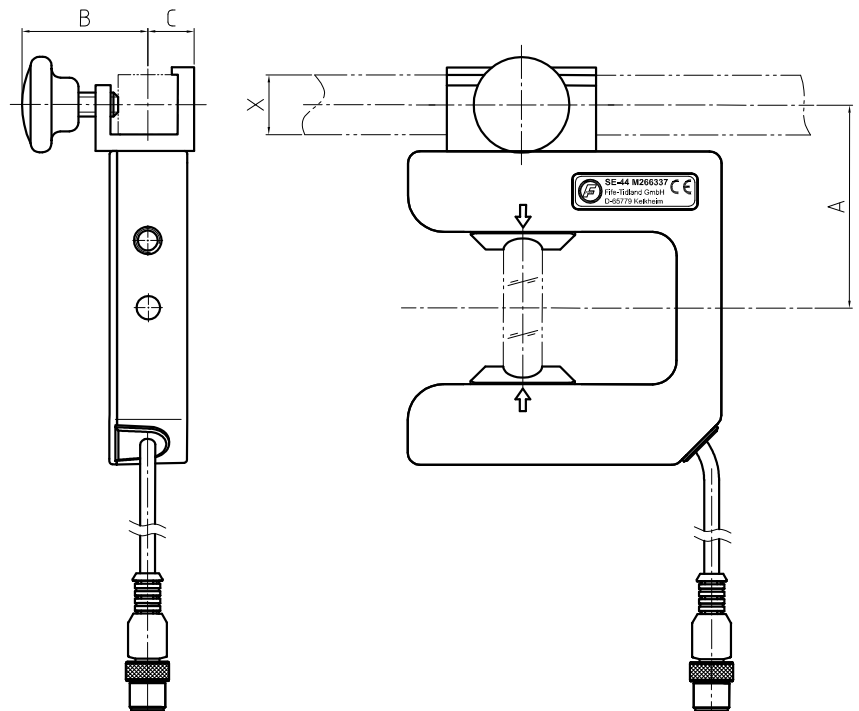
ULTRASONIC SENSOR

DIMENSIONS

- 1 Receiver
- 2 Source
- 3 Sensor field of view (proportional band)
- 4 Connection cable



SENSOR MOUNTING



SENSOR MOUNTING	X SQUARE BAR	A	B	C
MB-20	□ 20	68	42,5	15,5
MB-25	□ 25	71	46,5	18,5
MB-32	□ 32	76	51,5	23,5

Dimension shown in mm.

MAXCESS



EUROPE, MIDDLE EAST AND AFRICA

Tel +49.6195.7002.0
 Fax +49.6195.7002.933
 sales@maxcess.eu
 www.maxcess.eu

INDIA

Tel +91.22.27602633
 Fax +91.22.27602634
 india@maxcessintl.com
 www.maxcess.in

NORTH, CENTRAL AND SOUTH AMERICA

Tel +1.405.755.1600
 Fax +1.405.755.8425
 sales@maxcessintl.com
 www.maxcessintl.com

JAPAN

Tel +81.43.421.1622
 Fax +81.43.421.2895
 japan@maxcessintl.com
 www.maxcess.jp

CHINA

Tel +86.756.881.9398
 Fax +86.756.881.9393
 info@maxcessintl.com.cn
 www.maxcessintl.com.cn

KOREA, TAIWAN AND SE ASIA

Tel +65.9620.3883
 Fax +65.6235.4818
 asia@maxcessintl.com

FIFE SE-37 ULTRASONIC SENSOR

MAXCESS®

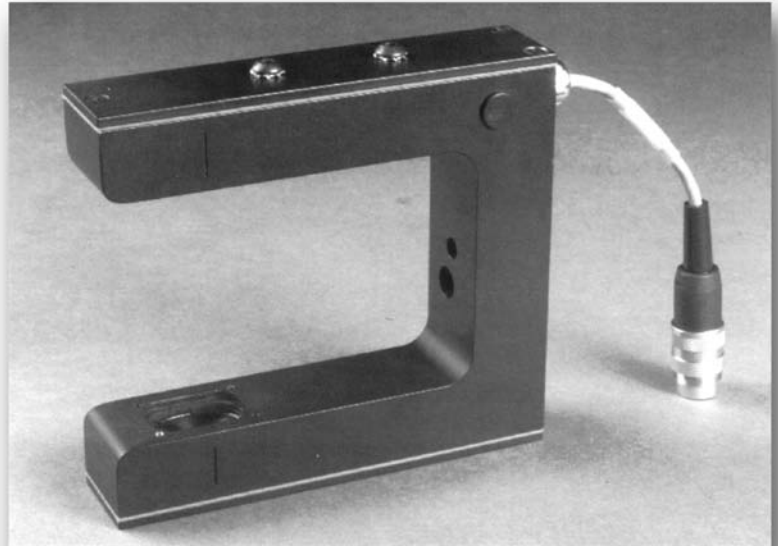
MAGPOWR



TIDLAND

With a control range of 25.4 mm (1 inch) and a sensing gap of 76.2 mm (3 inches), the SE-37 is our largest ultrasonic sensor. Temperature stabilized, this sensor is ideal for guiding both clear films and most opaque webs.

Because the SE-37 is unaffected by optical variation or ambient light, it eliminates the need for multiple sensors, resulting in decreased downtime and increased productivity. Improved circuitry reduces the effect of standing waves and temperature variations, which improves the overall operational performance.



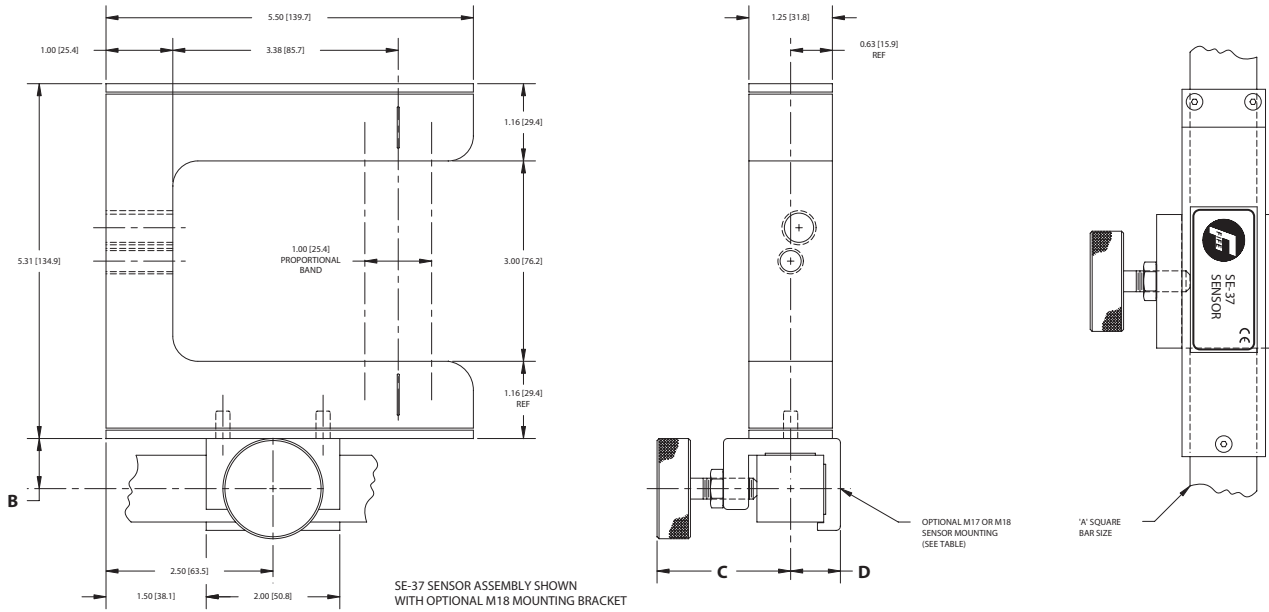
GENERAL SPECIFICATIONS

Product Name SE-37 Ultrasonic Sensor	Output Signal 0 to 10 mA
Linearity 5% nominal maximum error	Update Rate 6 ms
Plane Change 5% nominal maximum error	Weight 566 grams (20 ounces)
Power Required 10 to 15 VDC at <27 mA	Temperature Range 0° to 60° C (32° to 140° F)

KEY FEATURES

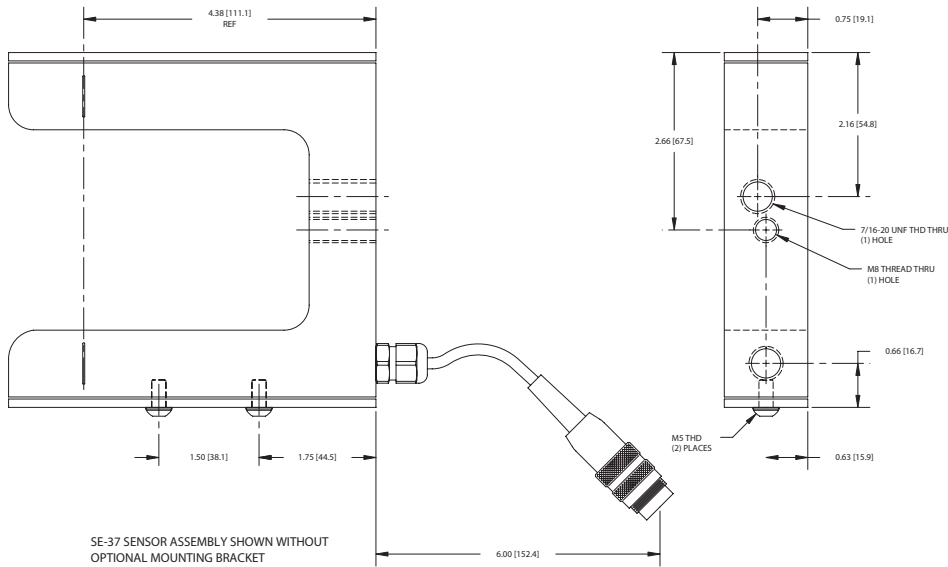
- The largest of the ultrasonic family, ideal for guiding the thinnest and clearest of films, as well as most opaque webs
- Immune to web plane changes and unaffected by optical variations or ambient light, including sunlight
- Will not affect photosensitive paper or film
- Compatible with all Fife controllers
- Flexible mounting and positioning assemblies ensure quick and easy installation
- Electrostatic discharge protected

FIFE SE-37 ULTRASONIC SENSOR



Dimensions shown in parenthesis are in inches

SENSOR MOUNTING	A SQUARE BAR	B	C	D
M-17	19.05 mm (0.75 inch)	15.9 mm (0.63 inch)	38.10 mm (1.50 inches)	16.00 mm (0.63 inch)
M-18	25.4 mm (1 inch)	19.10 mm (0.75 inch)	50.80 mm (2.00 inches)	19.1 mm (0.75 inch)



MAXCESS®



NORTH, CENTRAL AND SOUTH AMERICA

Tel +1.405.755.1600
Fax +1.405.755.8425
sales@maxcessintl.com
www.maxcessintl.com

INDIA

Tel +91.22.27602633
Fax +91.22.27602634
india@maxcessintl.com
www.maxcess.in

EUROPE, MIDDLE EAST AND AFRICA

Tel +49.6195.7002.0
Fax +49.6195.7002.933
sales@maxcess.eu
www.maxcess.eu

JAPAN

Tel +81.43.421.1622
Fax +81.43.421.2895
japan@maxcessintl.com
www.maxcess.jp

CHINA

Tel +86.756.881.9398
Fax +86.756.881.9393
info@maxcessintl.com.cn
www.maxcess.cn

KOREA, TAIWAN AND SE ASIA

Tel +65.9620.3883
Fax +65.6235.4818
asia@maxcessintl.com