DISPLACEMENT SENSORS FOR INDUSTRIAL APPLICATIONS

DS-Series

*Elasti*Sense

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DS - SERIES DISPLACEMENT SENSORS

PRODUCT DESCRIPTION

Displacement sensing, especially in aggressive applications, can be a real challenge. The choice between non-contact sensors requiring a clean and predictable environment, and cylinder-based sensors being sensitive to vibration and misalignment, can make the choice difficult. The DS series sensor combines the robustness of non-contact sensors by being solid-state while enabling measurement in "dirty" and unpredictable applications.

Your installation, operation, maintenance effort and cost can be substantially reduced as there is no need for special mounting, protection or cleaning of the sensors. DS series sensors add value in a wide variety of applications, including those within structural health monitoring, factory automation and off road vehicles, to mention just a few.

INDUSTRIAL INTERNET OF THINGS

- Condition monitoring
- Predictive maintenance
- Damage prevention
- Feedback control

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FEATURES AND OPTIONS

- Misalignment and overstroke tolerant

- Water-proof and submersible (IP68)

- Built-in environmental compensation

- Tolerates aggressive use

- Withstands harsh environments

- Weather (including UV) resistant coating

- No moving parts

- No maintenance

- Choice of signal outputs

- Multitude of customisation possibilities

SPECIFICATIONS

	DS5	DS20	DS50	DS100	DS250
Measurement range	5mm	20mm	50mm	100mm	250mm
Power supply	2.5-5.25V, or 12-24V				
Output signal	4-20mA, 0-5V, 0-10V, RS-232, or RS-485				
Accuracy	0.5% F.S.				
Resolution	0.01% F.S.				
Output signal update rate	1000 updates/second				
Temperature Coefficient	<0.01% F.S. / °C				
Force at max. displacement	120N				
Operating temperature	-40 to 85°C, or -40 to 105°C				
Protection rating	IP68 Equivalent				
Colour	Black, White, Grey (other colors on request)				
Approximate weight	50g	76g	84g	97g	136g

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PART NUMBER

DSAAABBCDEFFGH   Example: DS100BK12C01C2

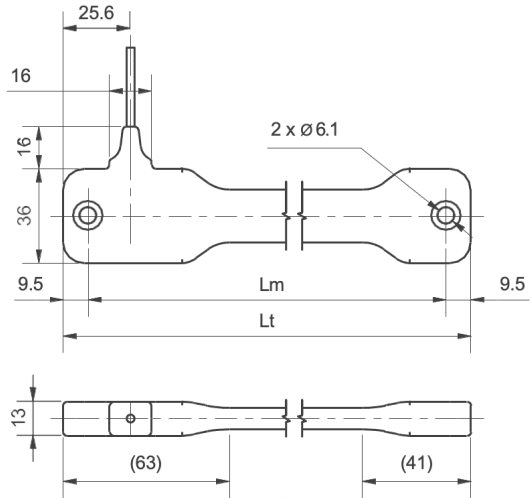|	
AAA - Stroke range	5 = 5 mm
	20 = 20mm
	50 = 50mm
	100 = 100mm
	250 = 250mm
BB - Colour	BK = Black (RAL 9011)
	WH[1] = White (RAL 9010)
	GY[1] = Grey (RAL 7000)
C - Power supply	1 = 2.5-5.25V
	2 = 12-24V
D - Signal output	1 = 4-20mA[2]
	2 = 0-5V
	3 = 0-10V[2]
	4 = RS-232[3]
	5 = RS-485[3]
E - Cable entry type	A = M8 6pin[1]
	B = M12 6pin[1]
	C = Flying lead
FF - Cable length	01 = 1m
	03 = 3m[1]
	10 = 10m[1]
G - Mounting hole	C = Alu 6061 Single 6.1mm hole
	D = Alu 6061 Twin 6.2mm holes
	E = Stainless steel 316 Single 6.1mm hole[1]
	F = Stainless steel 316 Twin 6.2mm hole[1]
H - Temperature	2 = -40°C - 85°C
	3 = -40°C - 105°C[1]

[1] Made to order with added cost
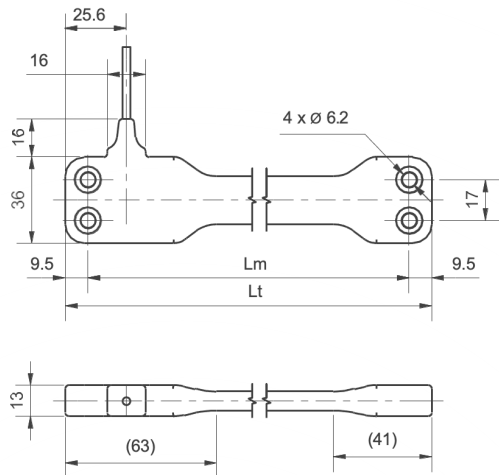
[2] Available with 12-24V power supply only

[3] With ElastiSense standard protocol. Other protocols e.g. Profibus or Modbus can be requested.

PRODUCT DIMENSIONS

SINGLE HOLE TYPE

TWIN HOLE TYPE

ZERO STROKE INSTALLATION DIMENSIONS - All dimensions in mm.

Model	Lt	Lm
DS5	80	61
DS20	116	97
DS50	159	140

Model	Lt	Lm
DS100	244	225
DS250	474	455

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ELECTRICAL CONNECTIONS

Signal output type = 1,2,3

Colour	Signal
Black	Ground
Red	Power Supply
White	Analogue Output
Blue	Analogue Output Ground
Yellow	Reserved
Green	Reserved

Signal output type = 4 (RS232)

Colour	Signal
Black	Ground
Red	Power Supply
White	Reserved
Blue	Reserved
Yellow	TX
Green	RX

Signal output type = 5 (RS485)

Colour	Signal
Black	Ground
Red	Power Supply
White	A
Blue	B
Yellow	Y
Green	Z

TERMS OF USE

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