

S. Square was founded in 1980 and has been fully dedicated in developing and manufacturing high quality ultrasonic transducers for a variety of applications including security, automation, medical diagnostics and automobile.

S. Square now presents a series of ultrasonic proximity sensors using latest microprocessor-based electronics featuring full programmability, intelligent electronics and low cost. UPS series sensors cover a wide sensing range from few centimeters up to 20 meter by using different frequency transducers. UPS series sensors are cost-efficient which



incorporate programmability with one continuous analog current, 4-20mA, output and two adjustable PNP transistor switch point outputs and RS232 Protocol.

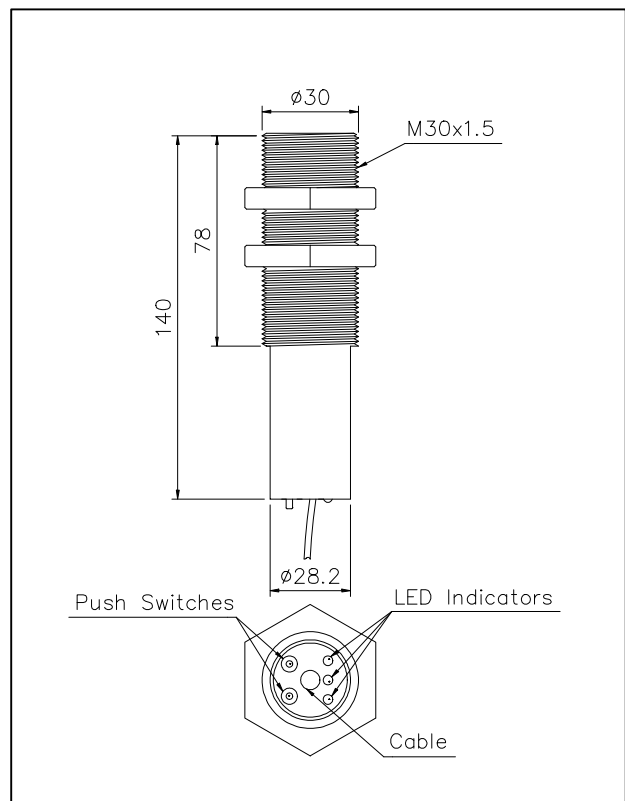
Features

- High frequency operation – 200KHz
- Sensitivity range: 10 cm to 200 cm
- Two types of programmability: push-button and through RS232 protocol
- 2 independently adjustable transistor outputs
- One analog current output, 4 – 20mA
- Temperature compensation
- Fully sealed stainless steel housing
- Operation status indication
- Short circuit and overload protection
- Reverse polarity protection

Applications

- Level measurement & control
- Web loop, diameter measurement and break detection
- Part sorting and counting
- Dynamic dimension measurement

Dimensions



Specification

		Set	RS232 Read	Manual Set
Operating frequency	200 KHz			
Beam Angle	±8 degree (-3dB)			
Transmit level	Adjustable	X	X	
Target type (Note 1)	Soft/Hard			
Range				
Minimum	100 mm			
Maximum (Note 2)	2000 mm			
Span distance minimum	75 mm			
Span start minimum	100 mm	X	X	X
Span end maximum	2000 mm	X	X	X
Output mode	Inch/mm	X	X	
Set Points				
Number	2	X	X	X
Mode	Independent/Window	X	X	X
Response time minimum	<32ms			
Response time maximum	User adjustable	X	X	
Hysteresis	0 – 15%	X	X	
Output type	PNP			
Output mode	N.O/N.C.	X	X	
Output maximum current	200 mA			
Over current/short circuit protection	Yes			
Reverse polarity protection	Yes			
Manual range set	Via 2 push buttons			
Current loop (4 – 20mA)				
Adjustable span	Yes	X	X	X
Resolution	1/256			
20 – 4 mA mode	Yes	X	X	X
Maximum load resistance	500 Ohm			
Temperature compensation				
Range	-25 to 70 °C			
On/off	Yes	X	X	
Temperature output	Yes	X	X	
Miscellaneous				
Measurement rate	Fixed, adjustable, random	X	X	
Signal filtering	4 modes	X	X	
Signal averaging	Up to 256 samples/2 modes	X	X	
LED #1	Power/fault			X
LED #2	Set point 1/window			X
LED #3	Set point 2			X
RS232 baud rate	9600			
Other				
Operating voltage	15 – 30 volts d.c.			
Operating current maximum	75 mA			
Operating temperature	0 to 60°C			
Mechanical				
Size	30mm Dia. x 110mm (L)			
Mounting	Threaded body			
Material	Stainless steel SUS304			
Environment	Water resistance			

Notes:

1. Hard target: Flat reflective 100mm x 100mm; Soft target: Felt covered cylindrical 100mm x 100mm
2. Hard target: 1500 mm; Soft target: 1000 mm; Highly reflective target: 2000 mm