WARNER ELECTRIC EUROPE
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MOUNTING INSTRUCTIONS

SCALABLE ULTRASONIC SENSOR

1. FEATURES

Type SCUA-130

Power supply	15 to 30 VDC/ max 30 mA
Analogue output	see SETTING section
Min distance	100 mm
Max distance	1000 mm
Accuracy	+/- 1 mm
Housing	IP 67
Accessory delivered	5 m cable

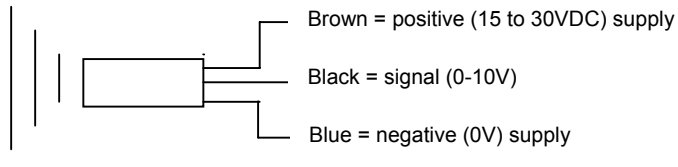
2. SETTING

The output is 0-10 V or 10V to 0V for a measured distance comprised between 100 and 1000 mm
Two operation are required for setting:

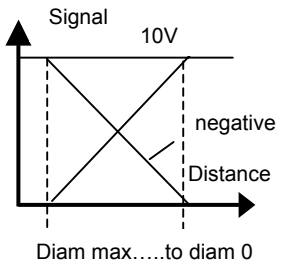
- **First to determine the measure range you need (diameter zero to max diameter)**
  1. Press SET button between 2 and 4 seconds. LED should blink RED
  2. Read the min distance. Press SET. LED should blink GREEN. (0v is stored)
  3. Read the max distance. Press SET.LED should come GREEN (10V is stored)
- **Second to determine the output slope**
  1. Press SET button more than 4 seconds until LED yellow (amber) blink fast.
  2. Release SET, slope polarity is positive (LED is green)
  3. Press SET again, slope polarity changes to negative (LED is RED)
  4. Press SET until amber blinks fast to confirm. (LED is green in the scaled range)

Default setting : 100 mm = output 0V
1000 mm = output 10V

3. WIRING



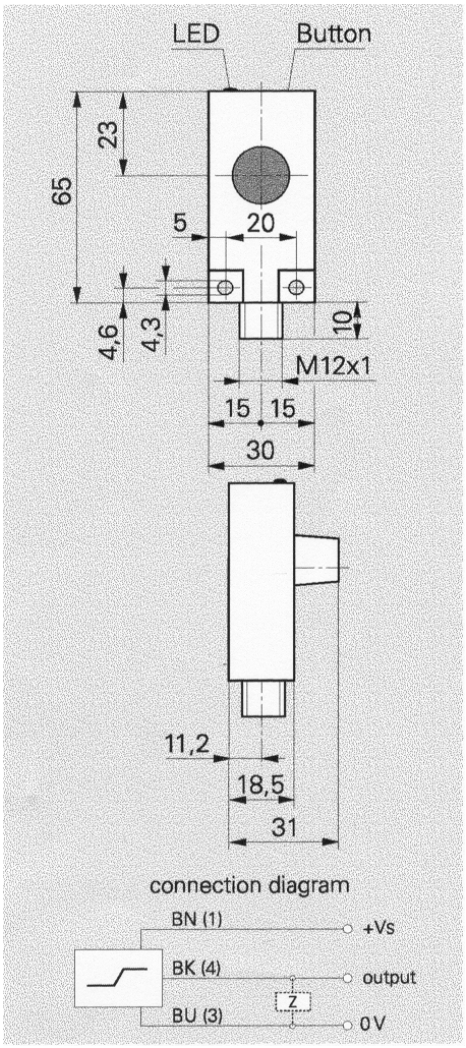
Any programmable curve on the cell (positive or negative



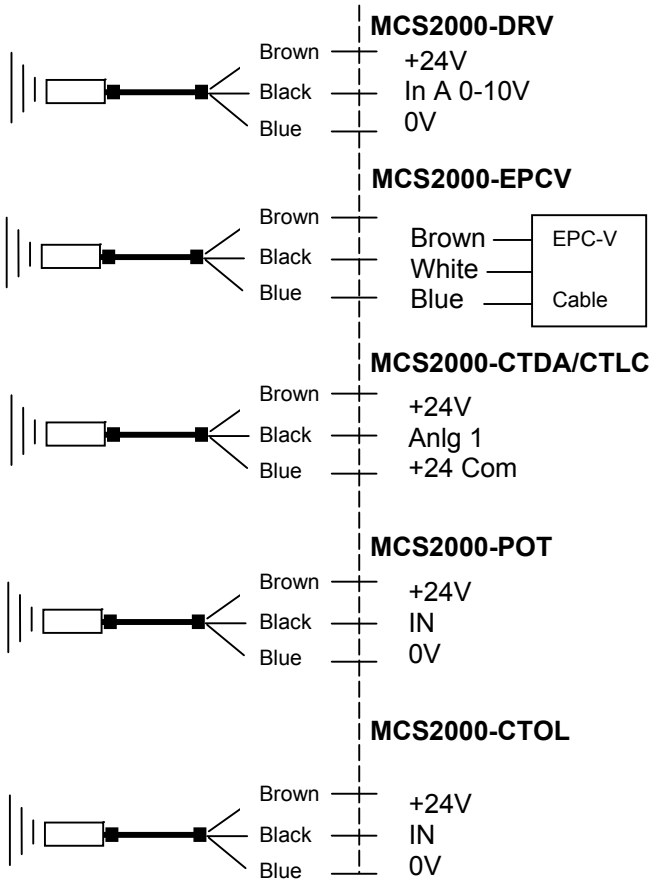
Signal compatible with any 0-10V input, in particular on :

- MCS2000-DRV
- EPC-V
- MCS2000-CTDA
- MCS2000-CTLC
- MCS2000-POT
- MCS2000-CTOL

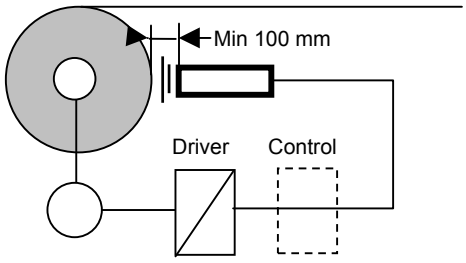
5. DIMENSIONS



7. MAIN WIRING



6. TYPICAL APPLICATION



Reading roll diameter in the Web Tension Control application in order to exploit diameter information as torque reference or as PID compensation in closed loop solution with control. In this case setting should be :
Max roll diameter (min distance) = output 10VDiameter zero (max distance) = output 0V
(This is the typical case where we need negative curve)

8. REMARK & RECOMMENDATIONS

- In scaling phase, always start with minimum distance registration. Must be min. 100 mm
- For typical application where we need to sense the diameter of the roll we need negative curve in order to get zero diam=0V and max diam=10V
- After 5 minutes operating for scaling the process is blocked. Switch off the power supply and ON again to release another 5 minutes scaling time.
- It is not recommended to use the sonic sensor on reflecting material such as moss, carpet ..

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MOUNTING INSTRUCTIONS

SCALABLE ULTRASONIC SENSOR

1. FEATURES

Type SCUA-140

Power supply	15 to 30 VDC/ max 30 mA
Analogue output	see SETTING section
Min distance	400 mm
Max distance	2500 mm
Accuracy	+/- 1 mm
Housing	IP 67
Accessory delivered	5 m cable

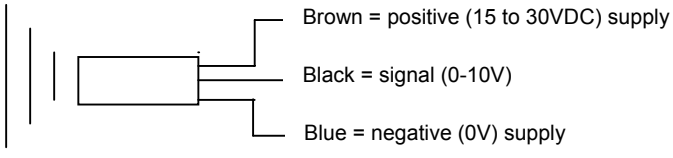
2. SETTING

The output is 0-10 V or 10V to 0V for a measured distance comprised between 400 and 2500 mm
Two operation are required for setting:

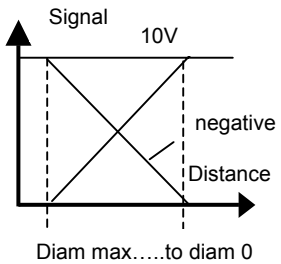
- **First to determine the measure range you need (diameter zero to max diameter)**
  1. Press SET button between 2 and 4 seconds. LED should blink RED
  2. Read the min distance. Press SET. LED should blink YELLOW (amber) (0v is stored)
  3. Read the max distance. Press SET.LED should come YELLOW (10V is stored)
- **Second to determine the output slope**
  1. Press SET button more than 4 seconds until LED YELLOW blink fast.
  2. Release SET, slope polarity is positive (LED is YELLOW)
  3. Press SET again, slope polarity changes to negative (LED is RED)
  4. Press SET until amber blinks fast to confirm. (LED is YELLOW in the scaled range)

Default setting : 400 mm = output 0V
2500 mm = output 10V

3. WIRING



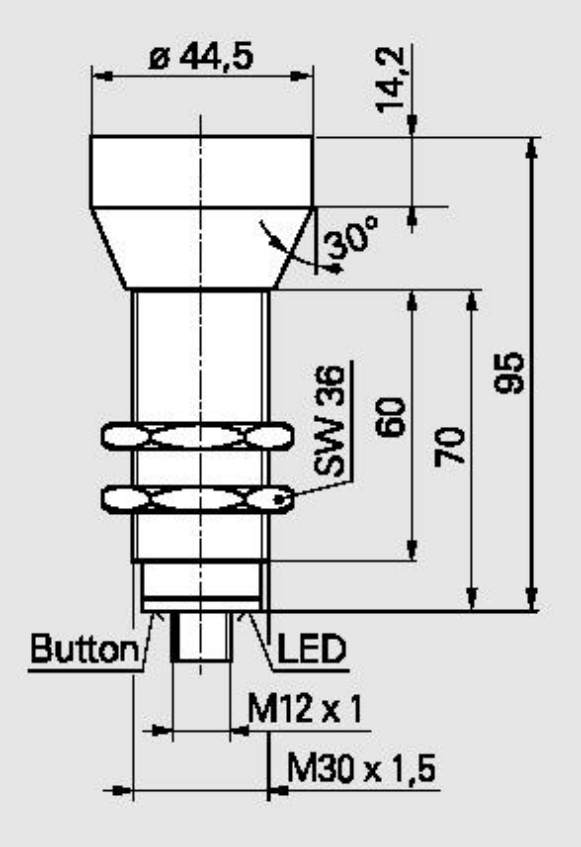
Any programmable curve on the cell (positive or negative slope)



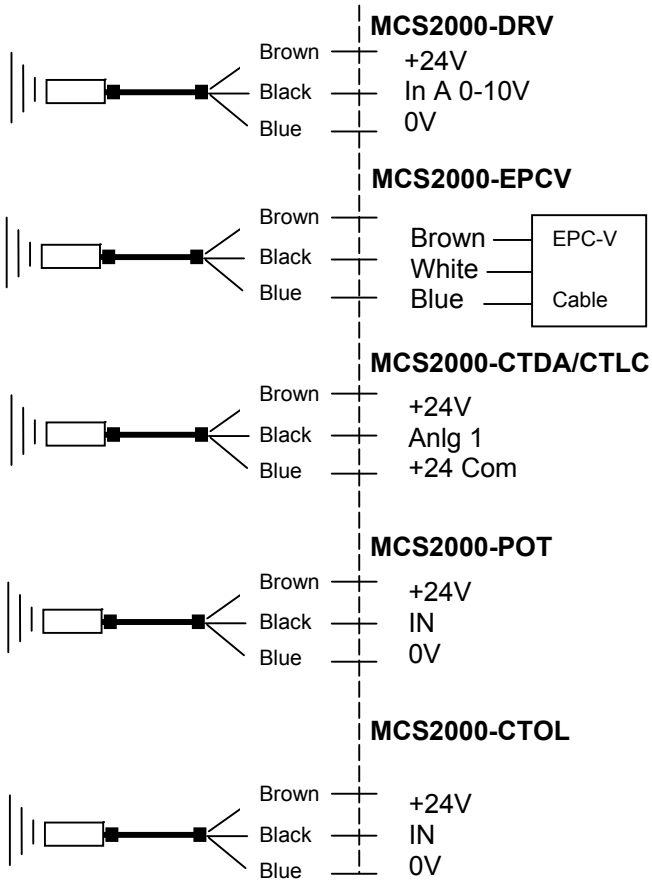
Signal compatible with any 0-10V input, in particular on :

- MCS2000-DRV
- EPC-V
- MCS2000-CTDA
- MCS2000-CTLC
- MCS2000-POT
- MCS2000-CTOL

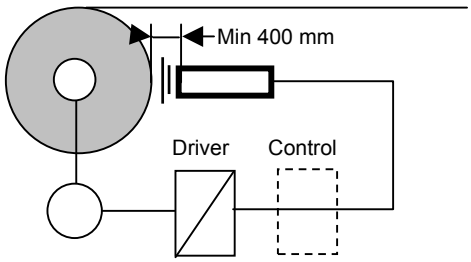
5. DIMENSIONS



7. MAIN WIRING



6. TYPICAL APPLICATION



Reading roll diameter in the Web Tension Control application in order to exploit diameter information as torque reference or as PID compensation in closed loop solution with control. In this case setting should be :
Max roll diameter (min distance) = output 10V
Diameter zero (max distance) = output 0V
(This is the typical case where we need negative curve)

8. REMARK & RECOMMENDATIONS

- In scaling phase, always start with minimum distance registration. (Must be min 400 mm)
- For typical application where we need to sense the diameter of the roll we need negative curve in order to get zero diam=0V and max diam=10V
- After 5 minutes operating for scaling the process is blocked. Switch off the power supply and ON again to release another 5 minutes scaling time.
- It is not recommended to use the sonic sensor on reflecting material such as moss, carpet ..