

Data Sheets

LED-line

Analogue Display

General Information

LED-line is a highly economical and versatile process indicating bargraph indicator that may be mounted horizontally or vertically.

The high visibility LEDs allow the signal value and its trend to be determined at a glance.

The display may be configured to act as moving dot or accumulating bar format, to suit such applications as position monitoring or level indication.

The "Units-of-Measure" and scale graduation label may be customised as an added service to give greater meaning to the displayed information.

LED-line instruments have many advantages including simple installation, ease of use, high noise immunity.

Advantages

- Dot and Bar display respectively
- Zero and Span adjustment (Offset)
- Compact, space saving
- Choice of LED colour (red or green)
- Alarm indication
- Choice of Housing colour (black or beige)
- High input impedance
- Expanded measuring range possible
- Completely solid state
- Easy mounting and wiring
- Various self-adhesive scales available

Applications

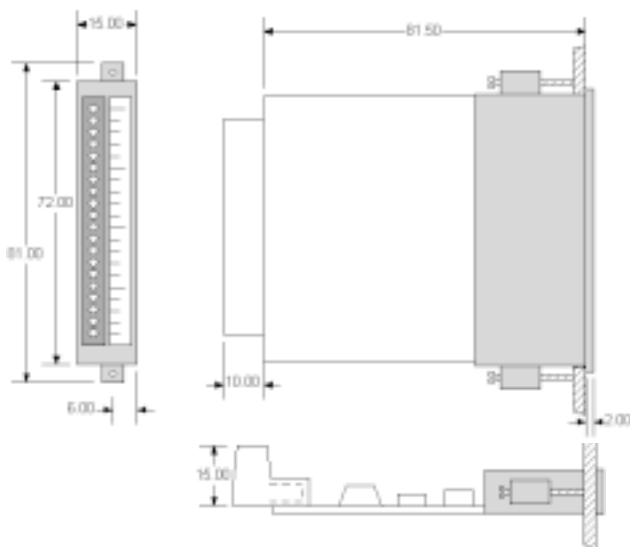
Voltage and current measurement

Display of process measurement signals in installations as;

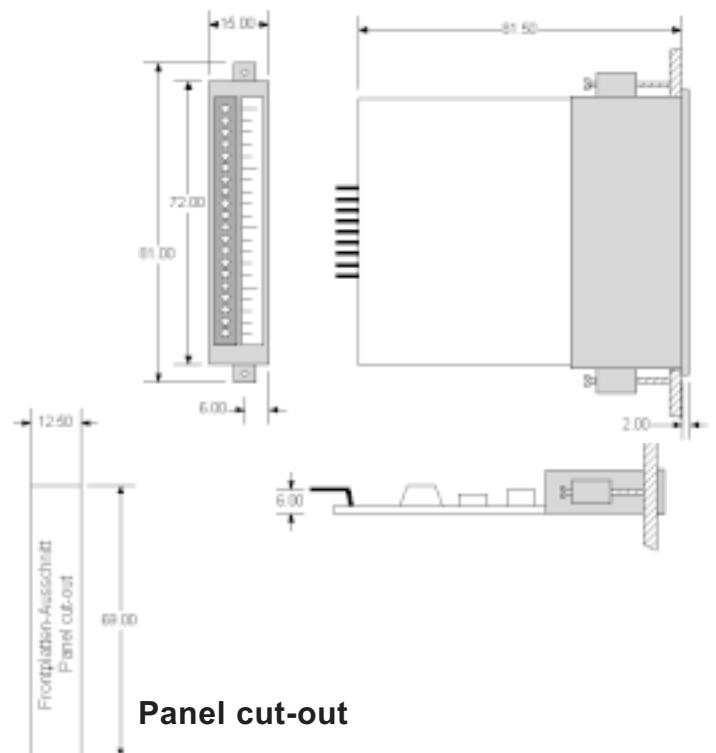
- | | |
|----------------|---------------------------------|
| - Fluid Levels | - Number of revolutions |
| - Pressure | - Supervisory monitoring |
| - Temperature | - Amplitude and balance control |
| - Viscosity | - Signal comparison |
| - Flow speed | - Tolerance check |



Dimensions Type 06



Dimensions Type 01, 11, 02, 03, 14

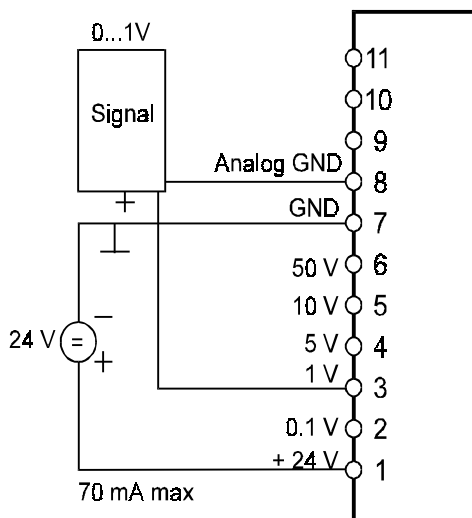


| Specifications and type summary | | | O1 | 11 | O2 | O3 | 14 | O6 |
|---|--------------|---------------------|----------------------|----------------------|---------------------|-------------|-----------------------------------|----|
| Type | | | | | | | | |
| Number of LEDs | | | 21 | 21 | 21 | 21 | 21 | 21 |
| Bar display | | | + | | + | + | | + |
| Dot display | | | | + | | | + | |
| Measuring range - Voltage DC | V | * 0...+1 0...+10 | * 0...+1 +0...+10 | * 0...+0.1 0...+1 | * 0...+5 0...+50 | -0.5...+0.5 | 0.1 1.0 5.0 10.0 50.0 | |
| - Current DC | mA | *0...+20 | *0...+20 | *0...+2 | | -10...+10 | 0...+20 | |
| Maximum input voltage | V | ±15 | ±15 | ±15 | ±50 | ±15 | ±15 | |
| Zero point oppression | | *...50% | *...50% | *...50% | | | | |
| Zero point (offset) | | | | | | ± 10% | ±10% | |
| Input impedance - voltage - current | K Ohm Ohm | 100 47 | 100 47 | 100 47 | 100 | 100 47 | 470 22 | |
| Supply voltage range | V | +10...18 | +10...18 | +10...18 | +10...18 | +10...18 | +18...30 | |
| Supply current at 24 V | mA | - | - | - | - | - | 70 | |
| Supply current at 12 V | mA | 70 | 55 | 70 | 70 | 55 | - | |
| Supply current at 5 V | mA | - | - | - | - | - | - | |
| Linearity in comparison with full scale | | 5% | 5% | 5% | 5% | 5% | 5% | |
| Operating temperature | | 0...+60 °C | | | | | | |
| Storage temperature | | -20...+80 °C | | | | | | |

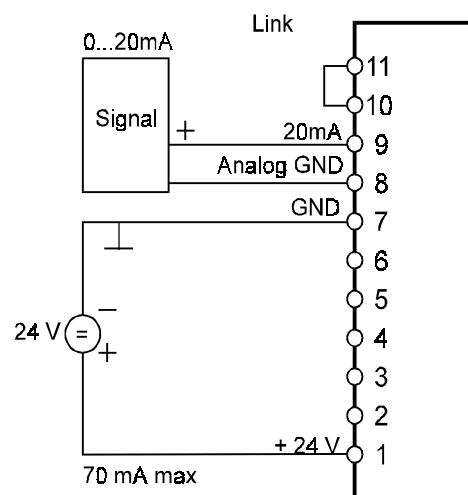
* Selectable or adjustable by user

Application example, type 06

Voltage measuring, signal 1 VDC



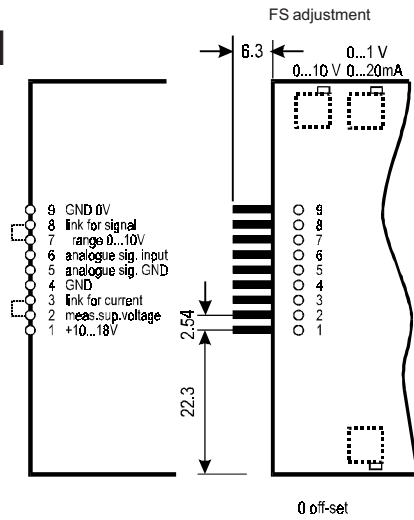
Current measuring



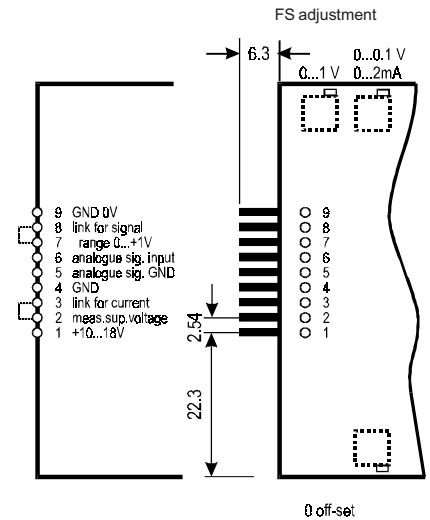
Important! No galvanic separation between supply voltage and measuring circuit!

Connections

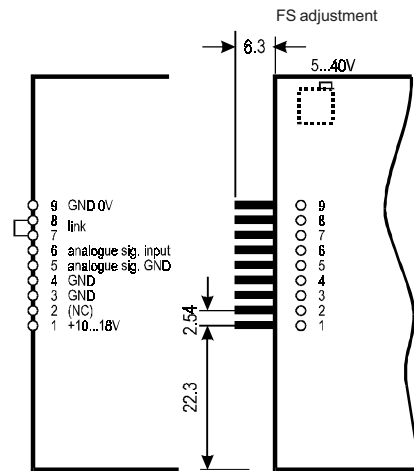
01,11



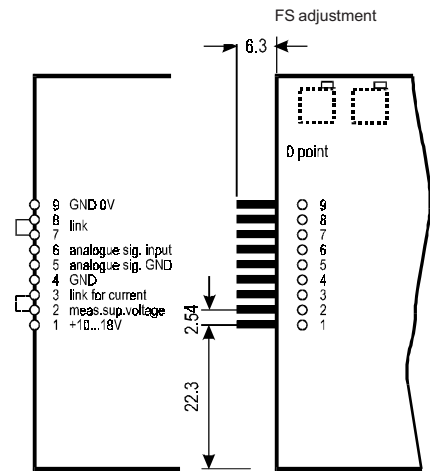
02



03



14



Overflow: On types 11 and 14 an additional dot indicates overflow.

Ordering codes

Example of ordering code: *L-2A01003B*

LED-line **L - 2 A 0 1 0 0 3 B**

Housing dimensions 2=72mm
Housing colour: A=grey, B=black
Type
Logic family 00=Analogue
01=zero diode on opposite side (types 01, 02, 03)
02=flashing rated value (Types 01, 02)*
LED colour: 1=green, 3=red
Connections: B=solder pins, C=removable screw terminals
*Rated value reached: last diode flashes
Rated value exceeded: last three diodes flash

LED-line Scales

| Order Number | Type | Range | Basic colour | Inscription | Orientation |
|--------------|----------------------------|------------------|--------------|-------------|-------------|
| CU309002C | Scale for LED-line Display | 0...0.5...1.0 | silver | black | horizontal |
| CU309002D | Scale for LED-line Display | 0...0.5...1.0 | black | silver | horizontal |
| CU309003A | Scale for LED-line Display | 0...1.0 | silver | black | vertical |
| CU309003B | Scale for LED-line Display | 0...1.0 | black | silver | vertical |
| CU309008C | Scale for LED-line Display | -50...0...+50 | silver | black | horizontal |
| CU309008D | Scale for LED-line Display | -50...0...+50 | black | silver | horizontal |
| CU309012A | Scale for LED-line Display | 0...10...20 | silver | black | vertical |
| CU309012B | Scale for LED-line Display | 0...10...20 | black | silver | vertical |
| CU309013C | Scale for LED-line Display | 0...5...10 | silver | black | horizontal |
| CU309013D | Scale for LED-line Display | 0...5...10 | black | silver | horizontal |
| CU309014A | Scale for LED-line Display | 0...5...10 | silver | black | vertical |
| CU309014B | Scale for LED-line Display | 0...5...10 | black | silver | vertical |
| CU309030C | Scale for LED-line Display | 0...50...100 | silver | black | horizontal |
| CU309030D | Scale for LED-line Display | 0...50...100 | black | silver | horizontal |
| CU309031A | Scale for LED-line Display | 0...50...100 | silver | black | vertical |
| CU309031B | Scale for LED-line Display | 0...50...100 | black | silver | vertical |
| CU309182A | Scale for LED-line Display | 0...10...20...10 | silver | black | vertical |
| CU309182B | Scale for LED-line Display | 0...10...20...10 | black | silver | vertical |
| CU309202A | Scale for LED-line Display | 0...5...10...15 | silver | black | vertical |
| CU309202B | Scale for LED-line Display | 0...5...10...15 | black | silver | vertical |
| CU309207A | Scale for LED-line Display | 0...125 % | silver | black | vertical |
| CU309207B | Scale for LED-line Display | 0...125 % | black | silver | vertical |
| CU309217A | Scale for LED-line Display | 0...100 % | silver | black | vertical |
| CU309217B | Scale for LED-line Display | 0...100 % | black | silver | vertical |