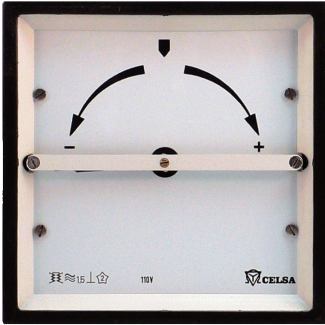
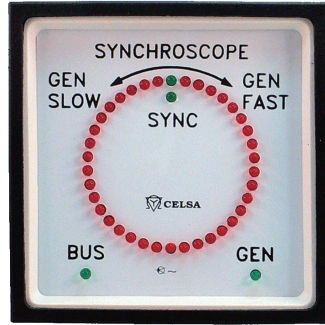


ANALOGUE MEASURING INSTRUMENTS

SQ - Synchrosopes



SQ...s



SQ96n

- For alternating current 50-60 Hz
- Analogue execution
- Digital LED execution

Description SQ... analogue

This instrument uses a moving-iron ratiometer, with eddy-current damping. Only when the pointer stops on the scale mark, the frequencies and phase angles of the voltages of both generators are the same. If it stops on another point, there is phase displacement between both voltages or at least one generator is disconnected. When the frequency difference is less than approximately 1.5Hz, the pointer rotates in the direction marked as "+" (if the frequency of the generator G2 is higher than the frequency of G1) or in the direction marked as "-" (if the frequency of G2 is lower).

Description SQ... digital

This instrument shows as well the phasing and the frequency of two current circuits to each other. Only if phasing and frequency are the same the green LEDs are flashing in the middle on the top. When there are different phasings or frequencies the red LEDs are flashing, depending on degree of deviation per size of difference more on the left or more on the right.

Technical Features

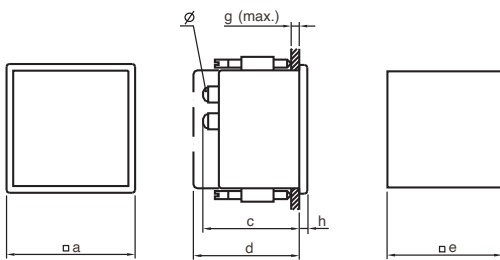
| Marco (mm) | 96 x 96 | 96 x 96 | 144 x 144 |
|-----------------------------------|---------------------|----------------------|----------------------|
| Measuring range U (V) | Digital type | Analogue type | Analogue type |
| Single-phase AC | SQ 96n/1 | SQ 96s/1 | SQ 144s/1 |
| Consumption | max.6 VA | 5 VA | max.25 mA |
| 100 / $\bar{A}3^*$ | ○ | ○ | ○ |
| 100 / $\bar{A}3^*$ | ○ | ○ | ○ |
| 100 - 110* | ● | ● | ○ |
| 230* | ● | ● | ○ |
| Three-phase, 3 wire balanced load | SQ 96n/2 | SQ 96s/2 | SQ 144s/2 |
| Consumption | max.6 VA | 5 VA | max.25 mA |
| 100 | ● | ● | ○ |
| 110 | ● | ● | ○ |
| 230* | ● | ● | ○ |
| 400* | ● | ● | ○ |
| 440* | ● | ● | ○ |
| Terminal covers | - | ● | - |

● available ○ on request

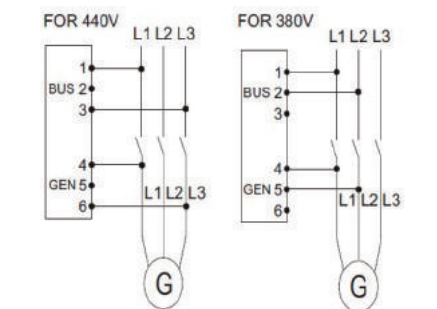
*with separated series resistor (external) / only analogue type

Dimensions in mm / Weight in gramme

| Type | a | c | d | e | g | h | Ø | Weight |
|--------------|-----|-----|-----|--------------------|----|-----|----|--------|
| SQ96n/1 -/2 | 96 | 107 | 119 | 92 ^{+0,8} | 40 | 5 | M4 | 680 |
| SQ96s/1 -/2 | 96 | 136 | 76 | 92 ^{+0,8} | 10 | 5 | M4 | 1100 |
| SQ144s/1 -/2 | 144 | 136 | 95 | 144 ⁺¹ | 1 | 5,5 | M4 | 1800 |



Connection diagrams: SQ96n LED execution



Connection diagrams: SQ96s/SQ144s analogue execution

