

QSxx and QVxx

Charge Converter and Charge Amplifier

Uses

- Measuring of acceleration
- Measuring of vibration
- Under water measuring with Hydrophone

Features

- Charge converter for piezoelectric transducer
- Series QVxx with switchable gain and overload indication
- Optional with Filter
- Up to 8 identical channels
- Battery-operated

The battery-operated charge converters of the series QSxx supply an output voltage of 1mV/pC. They are thus suitable for a large number of commercial charge transducer. The charge converters are optimized on smallest self-noise.

The devices of the series QVxx are also equipped with a switchable gain and an overload indicator.

Optionally the charge converters can be equipped also with high and/or low-pass filters.

All devices can be operated with rechargeable battery or external 9V...15V DC voltage.

Types QSxx

Item	QS10	QS20	QS30	QS40
Number of Inputs / Outputs	1	2	3	4
Gain	-	-	-	-
Filter	Optional	Optional	Optional	Optional
Cabinet dimensions	105 x 45 x 85 mm	105 x 65 x 85 mm	105 x 65 x 85 mm	105 x 65 x 85 mm

Types QVxx

Item	QV10	QV20	QV30	QV40
Number of Inputs / Outputs	1	2	3	4
Gain	0 dB, +20 dB, +40 dB	0 dB, +20 dB, +40 dB	0 dB, +20 dB, +40 dB	0 dB, +20 dB, +40 dB
Filter	Optional	Optional	Optional	Optional
Cabinet dimensions	105 x 45 x 85 mm	105 x 65 x 85 mm	105 x 65 x 85 mm	105 x 65 x 85 mm

Technical Data

Charge inputs

Number: up to 8 channels
Connector: 10-32 UNF Microdot*

Outputs

Number: see Inputs
Connector: BNC*

Input sensitivity: 1mV/pC
Output impedance: 50Ω

QSxx

Frequency range: 0,2 Hz – 100 kHz (-3 dB)
Gain: 0 dB

QVxx

Frequency range: 0,2 Hz – 100 kHz (-3 dB)
Gain: 0 dB, +20 dB, +40 dB

Accuracy: ± 1 % typical, ± 2 % maximal

Inherent noise at 0 dB +20 dB +40 dB
Linear: < 80 μV < 250 μV < 300 μV

LED Indication

„Batt“ red / green, Battery voltage
„Ext.“ yellow, External Supply
„Ovld.“ (QVxx only) red, Overload

Power supply

Battery-operation

Batteries: 4 x batteries 1.5 V
Lifetime battery: > 8 h
Current consumption: >100 mA
depends on number of channels

External Supply / Charging

AC adapter 9 V... 18 V DC
External Power socket: .2.1 mm coaxial power
connector

Operating conditions

Operating temperature
range: +/- 0°C to +50°C

Mechanical Data

Cabinet material: Aluminum
Dimensions (W x H x D): ... 105 x 65 x 85 mm
Weight: ca. 600 g

Accessories included

External AC adapter, 100-240 VAC / 12 VDC

Optional Accessories

Transducers
Low Noise cable

* others possible

Messelektronik Ulrich Falm reserves the right to change specifications and accessories without notice.