

QV/01, QV/02 & QV/04 In-line Charge to Voltage converter

Miniature two wire charge/voltage converter; low impedance line driver maintains data integrity over distances up to several hundred meters; x0.1, x1 and x10 gain options.

In-line charge to voltage converters provide users with the ability to use charge accelerometers with all their benefits of high temperature etc. whilst using the built in IEPE (ICP) signal conditioning power available in many off-the-shelf vibration controller/analysers and data acquisition front ends.

Connector options include:

- 10/32 microdot to BNC
- 10/32 microdot to TNC
- 10/32 microdot to 10/32 microdot

The QV range can be supplied with a number of different gain settings which are factory set, x0.1, x1 or x10.

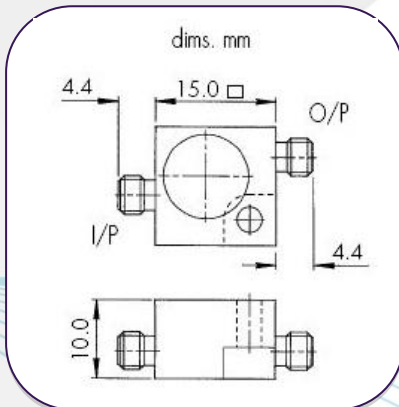
The QV can be installed anywhere in the signal line between the accelerometer and the acquisition front end using low noise cable between the QV and the accelerometer to minimise triboelectric noise.

Voltage sensitivity can be calculated from:

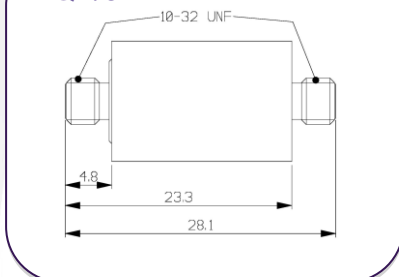
$(\text{pC/g sensitivity}) \times (\text{QV gain}) = \text{Voltage sensitivity}$

e.g.
 $(30\text{pC/g}) \times (\text{x1 gain}) = 30\text{mV/g output}$

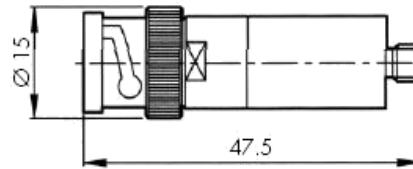
QV/01



QV/04

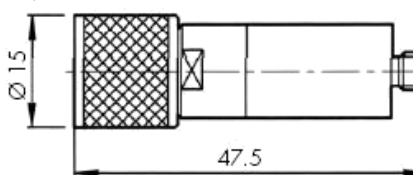


QV/02



Inline converter joiner for
BNC socket & Microdot plug

QV/02/T



Inline converter joiner for
TNC socket & Microdot plug



Type	QV/01/0.1 QV/02/0.1 QV/04/0.1	QV/01/1 QV/02/1 QV/04/1	QV/01/10 QV/02/10 QV/04/10
Gain, mV/pC±2% @500Hz	0.1	1	10
Max input charge, nC	50	5	0.5
Input cap. loading, nF/1% gain reduction		20	2
Noise level, pC r.t.i. i/p cap, 1nf		0.01	0.005
Peak O/P voltage, V	5		
Bandwidth (-3dB), Hz		0.35/100k	5/100k
Startup time, secs	<2		
Supply voltage, V	+15/35 for 5V pk. O/P		
Max current, mA	20 @ 20.C, 10 @125.C		
Operating temperature range, °C	-50/+125		
Case material	QV/01 - Aluminum QV/02 – Stainless Steel QV/04 – Stainless Steel		
Case seal	Epoxy		
Weight, gm	5.5 (QV/01 ; 20 (QV/02)		
I/P, O/P connectors	As detailed		

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