

Summing Box

Туре 5417 Туре 5417Q01

With the summing box, the electrical charges of a maximum of four 3-component force sensors are interconnected.

IP65, single and dynamometer signal summation

The assignment of the individual sensor connections corresponds to the sensor arrangement of a dynamometer.

A maximum of 8 measuring signals are available at the output socket, equal to the Kistler standard dynamometers.

The connection to the charge amplifier is made with a 3-wire cable (for triaxial force measurement) or with an 8-wire cable (for 6-component measurement).

If connections are not used, the sockets must be closed with a cover.

The summing box is NOT ground insulated.

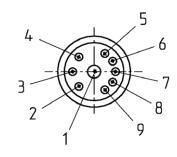


Technical data

Operating temperature range	°C	-40 80
Protection class / EN60529 Unplugged		IP63
Plugged together with cable connector		IP65
Insulation resistance	Ω	≥1E13Ω

Output signal

Mass	1
X ₁₊₂	2
X ₃₊₄	3
Y ₁₊₄	4
Y ₂₊₃	5
Ζ ₁	6
Z 2	7
Ζ ₃	8
Z 4	9



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This information corresponds to the current state of knowledge. Kistler reserves the right to make technical changes. Liability for consequential damage resulting from the use of Kistler products is excluded.

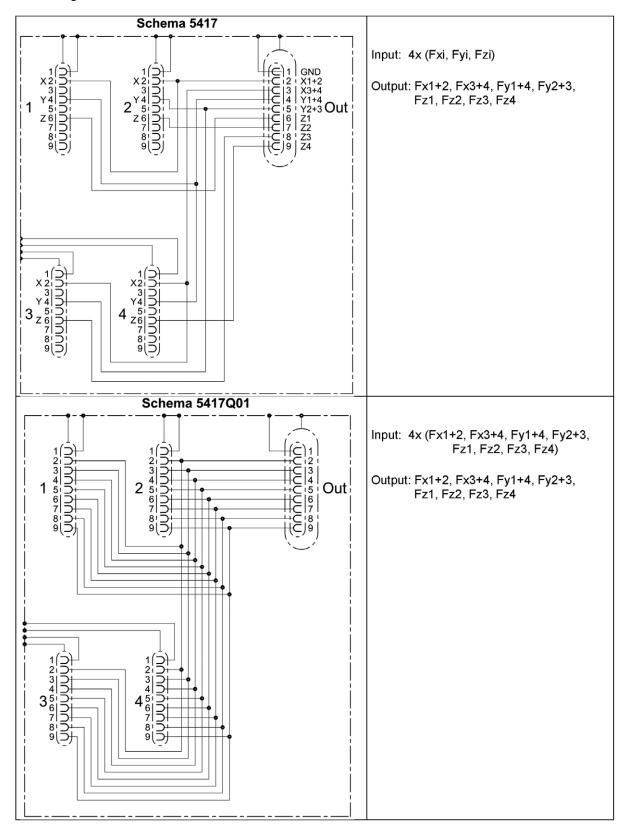
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Summing Box Type 5417 Summin



Circuit diagram

5417_003-475e-01.20



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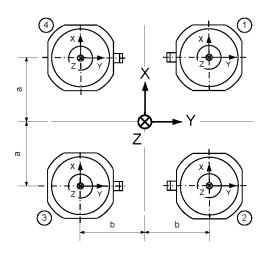
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KISTLER measure. analyze. innovate.

Force/Moment calculation (Type 5417 only!)

$$\begin{split} Fx &= Fx_{1+2} + Fx_{3+4} \\ Fy &= Fy_{1+4} + Fy_{2+3} \\ Fz &= Fz_1 + Fz_2 + Fz_3 + Fz_4 \\ Mx &= a \bullet (Fz_1 + Fz_2 - Fz_3 - Fz_4) \\ My &= b \bullet (-Fz_1 + Fz_2 + Fz_3 - Fz_4) \\ Mz &= b \bullet (-Fx_{1+2} + Fx_{3+4}) + a \bullet (Fy_{1+4} - Fy_{2+3}) \end{split}$$



Application

The parallel connections are routed as "single wire". To avoid crosstalk, the conditions are as follows:

All channels should be connected to a charge amplifier. If one or two input terminals are not used, the sockets must be closed with a cover.

Standard application: Summing box with all 4 cables connected.



Special application: Summing box with covers.



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