$$\left(\frac{1}{x^2+2xy}-\frac{1}{a^2-2ab}\right):\frac{4b^2}{4b^2-a^2}=\left(\frac{1}{x^2+2xy}-\frac{1}{a^2-2ab}\right)\frac{4b^2-a^2}{4b^2}=\left(\frac{1}{x^2+2xy}-\frac{1}{a^2-2ab}\right)\frac{-a^2+4b^2}{4b^2}=$$

$$=-\left(\frac{1}{x^2+2xy}-\frac{1}{a^2-2ab}\right)\frac{a^2-4b^2}{4b^2}=-\left(\frac{a^2-2ab}{(x^2+2xy)(a^2-2ab)}-\frac{x^2+2xy}{(a^2-2ab)(x^2+2xy)}\right)\frac{a^2-4b^2}{4b^2}=$$

$$=-\frac{(a^2-2ab)-(x^2+2xy)a^2-4b^2}{(x^2+2xy)(a^2-2ab)\ 4b^2}=-\frac{a^2-2ab-x^2-2xy\ \ a^2-4b^2}{(x^2+2xy)(a^2-2ab)\ \ 4b^2}=-\frac{(a^2-2ab-x^2-2xy)(a^2-4b^2)}{4(x^2+2xy)(a^2-2ab)b^2}=$$

$$=-\frac{(a^2-2ab-x^2-2xy)(a+2b)(a-2b)}{4(x^2+2xy)a(a-2b)b^2}=-\frac{(a^2-2ab-x^2-2xy)(a+2b)}{4(x^2+2xy)ab^2}$$

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Если нужно по действиям,тогда так:

1) $$\frac{1}{x^2+2xy}-\frac{1}{a^2-2ab}=\frac{a^2-2ab}{(x^2+2xy)(a^2-2ab)}-\frac{x^2+2xy}{(a^2-2ab)(x^2+2xy)}=$$

$$=\frac{(a^2-2ab)-(x^2+2xy)}{(x^2+2xy)(a^2-2ab)}=\frac{a^2-2ab-x^2-2xy}{(x^2+2xy)(a^2-2ab)}$$

2) $$\frac{a^2-2ab-x^2-2xy}{(x^2+2xy)(a^2-2ab)}:\frac{4b^2}{4b^2-a^2}=\frac{a^2-2ab-x^2-2xy\ \ 4b^2-a^2}{(x^2+2xy)(a^2-2ab)\ \ 4b^2}=\frac{(a^2-2ab-x^2-2xy)(4b^2-a^2)}{(x^2+2xy)(a^2-2ab)4b^2}=$$

$$=\frac{(a^2-2ab-x^2-2xy)(-a^2+4b^2)}{(x^2+2xy)(a^2-2ab)4b^2}=-\frac{(a^2-2ab-x^2-2xy)(a^2-4b^2)}{(x^2+2xy)(a^2-2ab)4b^2}=$$

$$=-\frac{(a^2-2ab-x^2-2xy)(a+2b)(a-2b)}{(x^2+2xy)a(a-2b)4b^2}=-\frac{(a^2-2ab-x^2-2xy)(a+2b)}{(x^2+2xy)a4b^2}=-\frac{(a^2-2ab-x^2-2xy)(a+2b)}{4(x^2+2xy)ab^2}$$