apply
$$(\langle \mathbf{R}_y \mathbf{R}_x, \mathbf{R}_y \mathbf{t}_x + \mathbf{t}_y \rangle, \mathbf{p}) = \mathbf{R}_y \mathbf{R}_x \mathbf{p} + \mathbf{R}_y \mathbf{t}_x + \mathbf{t}_y$$