```
SafeguardedCodec(
    codec=codec,  # any numcodecs codec
    safeguards=[
        # guarantee that the global minimum and maximum are preserved
        dict(kind="sign", offset="$x_min"),
        dict(kind="sign", offset="$x_max"),
        dict(
            kind="qoi_eb_pw",
            qoi="""
                # the above sign safeguards guarantee that
                #  min(data) = min(corrected) and
                #  max(data) = max(corrected)
                v["smin"] = c["$x_min"];
                v["smax"] = c["$x_max"];
                v["r"] = v["smax"] - v["smin"];

                # re-scale to [0-1] and quantise to 256 bins
                v["sc_a2"] = round_ties_even(
                    ((x - v["smin"]) / v["r"]) * 255
                ) / 255;

                # force the quantised value to stay the same
                return v["sc_a2"];
            """,
            type="abs",
            eb=0,
        ),
    ],
)
```