# 22 mm Pushbuttons and Emergency Stops — Harmony XB4/XB5, SIRIUS 3SU1 and Eaton M22 Compared

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How the modular 22 mm pushbutton systems work — head, mounting collar and snap-on contact blocks ordered separately or as complete units — what separates Harmony XB4 from XB5 and SIRIUS 3SU1 from Eaton's M22/RMQ line, and the non-negotiable rules for emergency-stop devices: latching, NC positive-opening contacts and release by twist, pull or key.

## One hole size, three ecosystems

Panel pushbuttons standardised on the 22 mm mounting hole decades ago, and the three dominant systems all build the same way: an operator head through the panel, a fixing collar or holder behind it, and contact blocks (NO, NC, or lamp) snapped on in rows. Complete assembled units exist for the common configurations — a Harmony XB4 black head with 1 NO + 1 NC is one reference — but the modular logic is what lets a panel shop stock heads and blocks separately.

System | Bezel | Notes from the catalogue |

Schneider Harmony XB4 | Chromed metal | The industrial default; ATEX-capped and multi-head variants included — over 1,100 line items |

Schneider Harmony XB5 | Dark plastic | Same heads-and-blocks logic, lighter and cheaper; blocks interchange with XB4 |

Siemens SIRIUS 3SU1 | Metal or plastic front rings | A thousand-plus items from complete units down to sunshades and label holders — prefixes in the Siemens decoder |

Eaton M22 (RMQ-Titan) | Silver or black | 1,100+ items; emergency-stop operators like the M22-PVL45P plus tags and accessories |

Compact 16 mm lines exist where panel space rules — the SIRIUS 3SB2 range here — but blocks and heads never interchange across hole sizes or across makers.

## Emergency stops are not ordinary red buttons

Latching is mandatory: the mushroom must lock down and release only by deliberate twist, pull or key — a key-release ZB5AS934 is the tamper-resistant grade for public-access machinery.

NC contacts with positive opening carry the safety function (IEC 60947-5-5 territory): the mechanism forces the contact apart rather than relying on a spring. A typical spec is the 40 mm head with 2 NC — two channels for monitored safety circuits.

Red operator, yellow background; the legend ring or a yellow enclosure supplies the yellow — surface-mounted stations like the Harmony XALK box arrive complete.

Replacement discipline: heads (ZB4 e-stop head) and contact blocks replace separately — after any fault, verify the block is still clipped home, since a dropped NC block is an invisible dead safety channel.

Around 1,400 emergency-stop line items are quotable across the three systems and the legacy Telemecanique references that preceded Harmony — send the machine's old reference, in any vintage, and the current equivalent plus the right contact blocks come back within 24 hours.

Frequently asked questions
Are Harmony XB4 and XB5 parts interchangeable?Contact blocks and most heads interchange — the difference is the collar and bezel material, metal on XB4 and plastic on XB5. A mixed panel works, but the bezel look will differ.How many contact blocks fit behind one 22 mm head?Typically three abreast and up to two or three deep depending on the system and enclosure depth — six circuits behind one head is realistic; deeper stacks need the maker's extended holders.Does an emergency stop need one NC contact or two?The machine's risk assessment decides: single-channel stops use one NC, monitored dual-channel safety circuits need 2 NC — and e-stop contacts must be positive-opening NC, never NO logic.Can I replace just the head of a pushbutton?Yes — heads, collars and blocks are separate spare parts in all three systems; keep the old contact blocks if they test clean and swap only the damaged operator.What is RMQ on Eaton part labels?Eaton's name for the M22 pilot-device family (RMQ-Titan) — M22-prefixed references all belong to it, from operators to marking tags.

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