UPSHUR COUNTY DEVELOPMENT AUTHORITY
UPSHUR COUNTY, WEST VIRGINIA

FIRST FLOOR - LAW OFFICE FIT-OUT

ADDENDUM #2

March 19, 2021

THRASHER PROJECT #060-10200

TO WHOM IT MAY CONCERN:

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated March 5, 2021. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

A. GENERAL - NONE

B. SPECIFICATIONS

1. A revised Index is included with this Addendum.
2. ADDED: Specification Section 087100 Door Hardware

C. DRAWINGS – NONE

D. QUESTIONS AND RESPONSES - NONE

E. CLARIFICATIONS - NONE

Sincerely,

THE THRASHER GROUP, INC.

Philip Freeman
Architect

REVISED:
Addendum No. 2

UPSHUR COUNTY DEVELOPMENT AUTHORITY
UPSHUR COUNTY, WESTVIRGINIA
PROPOSED
FIRST FLOOR – LAW OFFICE FIT-OUT
UPSHUR COUNTY INNOVATION CENTER

- I N D E X -

BIDDING DOCUMENTS

REVISED:
Addendum No. 2

SPECIFICATIONS

Non-Structural Metal Framing	092216
Gypsum Board	092900
Ceramic Tiling	093013
Acoustical Panel Ceilings	095113
Suspended Wood Ceilings	095426
Resilient Base and Accessories	096513
Tile Carpeting	096813
Interior Painting	099123
Toilet, Bath, and Laundry Accessories	102800
Fire Protection Cabinets	104413
Fire Extinguishers	104416
Metal Storage Shelving	105613
Residential Appliances – Under Beverage Counter	113013
Roller Window Shades	122413
Manufactured Wood-Veneer-Faced Casework	123213
Manufactured Plastic-Laminate-Clad Casework	123216
Solid Surfacing Countertops	123661.16
Wet-Pipe Fire-Suppression Sprinklers	211313
Common Work Results for Plumbing	220511
Meters and Gages for Plumbing Piping	220519
General-Duty Valves for Plumbing Piping	220523
Hangers and Supports for Plumbing Piping and Equipment	220529
Identification for Plumbing Piping and Equipment	220553
Plumbing Insulation	220719

Domestic Water Piping	221116
Domestic Water Piping Specialties	221119
Domestic Water Pumps	221123
Drainage Waste and Vent Piping	221316
Sanitary Waste Piping Specialties	221319
Facility Natura-Gas Piping	221416
Electric Water Heaters	223300
Plumbing Fixtures	224213
Common Work Results for HVAC	230511
Common Motor Requirements for HVAC Equipment	230513
Hangers and Supports for HVAC Piping and Equipment	230529
Vibration Controls for HVAC	230548.13
Identification for HVAC Piping and Equipment	230553
Testing, Adjusting, and Balancing	230593
HVAC Insulation	230713
Refrigerant Piping	232300
Metal Ducts	233113
Duct Accessories	233300
Power Ventilators	233423
Diffusers, Register, and Grilles	233713
Gas Furnaces	235416
Packaged Compressor and Condenser Units	236200
Unit Heaters	238239
Common Work Results for Electrical	260500

Low-Voltage Electrical Power Conductors and Cables	260519
Grounding and Bonding for Electrical Systems	260526
Hangers and Supports for Electrical Systems	260529
Raceway and Boxes for Electrical Systems	260533
Identification for Electrical Systems	260553
Lighting Control Devices	260923
Panelboards	262416
Wiring Devices	262726
Fuses	262813
Enclosed Switches	262816
Conductors and Cables for Electronic Safety and Security	280513
Digital, Addressable Fire-Alarm System	283111

SECTION 08 71 00 – DOOR HARDWARE

GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

A. Section includes:

1. Mechanical and electrified door hardware for:

a. Swinging doors.

2. Electronic access control system components, including:

a. Electronic access control devices.

3. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier's responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.

B. Exclusions: Unless specifically listed in hardware sets, hardware is not specified in this section for:

1. Windows
2. Cabinets (casework), including locks in cabinets
3. Signage
4. Toilet accessories
5. Overhead doors

C. Related Sections:

1. Division 07 Section "Joint Sealants" for sealant requirements applicable to threshold installation specified in this section.
2. Division 09 sections for touchup, finishing or refinishing of existing openings modified by this section.
3. Division 26 sections for connections to electrical power system and for low-voltage wiring.

4. Division 28 sections for coordination with other components of electronic access control system.

1.03 REFERENCES

A. UL - Underwriters Laboratories

1. UL 10B - Fire Test of Door Assemblies
2. UL 10C - Positive Pressure Test of Fire Door Assemblies
3. UL 1784 - Air Leakage Tests of Door Assemblies
4. UL 305 - Panic Hardware

B. DHI - Door and Hardware Institute

1. Sequence and Format for the Hardware Schedule
2. Recommended Locations for Builders Hardware
3. Key Systems and Nomenclature

C. ANSI - American National Standards Institute

1. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties

1.04 SUBMITTALS

A. General:

1. Submit in accordance with Conditions of Contract and Division 01 requirements.
2. Highlight, encircle, or otherwise specifically identify on submittals deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.
3. Prior to forwarding submittal, comply with procedures for verifying existing door and frame compatibility for new hardware, as specified in PART 3, “EXAMINATION” article, herein.

B. Action Submittals:

1. Product Data: Technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
2. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:

a. Wiring Diagrams: For power, signal, and control wiring and including:
1) Details of interface of electrified door hardware and building safety and security systems.
2) Schematic diagram of systems that interface with electrified door hardware.
3) Point-to-point wiring.
4) Risers.

3. Samples for Verification: If requested by Architect, submit production sample of requested door hardware unit in finish indicated, and tagged with full description for coordination with schedule.

    a. Samples will be returned to supplier. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.

4. Door Hardware Schedule: Submit schedule with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule as published by the Door and Hardware Institute. Indicate complete designations of each item required for each door or opening, include:

    a. Door Index; include door number, heading number, and Architects hardware set number.
    b. Opening Lock Function Spreadsheet: List locking device and function for each opening.
    c. Quantity, type, style, function, size, and finish of each hardware item.
    d. Name and manufacturer of each item.
    e. Fastenings and other pertinent information.
    f. Location of each hardware set cross-referenced to indications on Drawings.
    g. Explanation of all abbreviations, symbols, and codes contained in schedule.
    h. Mounting locations for hardware.
    i. Door and frame sizes and materials.
    j. Name and phone number for local manufacturer's representative for each product.
    k. Operational Description of openings with any electrified hardware (locks, exits, electromagnetic locks, electric strikes, automatic operators, door position switches, magnetic holders or closer/holder units, and access control components). Operational description should include operational descriptions for: egress, ingress (access), and fire/smoke alarm connections.
        1) Submittal Sequence: Submit door hardware schedule concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work that is critical in Project construction schedule.

5. Key Schedule:

    a. After Keying Conference, provide keying schedule listing levels of keying as well as explanation of key system's function, key symbols used and door numbers controlled.
    b. Use ANSI/BHMA A156.28 “Recommended Practices for Keying Systems” as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
    c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.
    d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
    e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion.

1) Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.

f. Prepare key schedule by or under supervision of supplier, detailing Owner's final keying instructions for locks.

6. Templates: After final approval of hardware schedule, provide templates for doors, frames and other work specified to be factory or shop prepared for door hardware installation.

C. Informational Submittals:

1. Qualification Data: For Supplier, Installer and Architectural Hardware Consultant.
2. Product data for electrified door hardware:

a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.

3. Warranty: Special warranty specified in this Section.

D. Closeout Submittals:

1. Operations and Maintenance Data: Provide in accordance with Division 01 and include:

a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
b. Catalog pages for each product.
c. Factory order acknowledgement numbers (for warranty and service)
d. Name, address, and phone number of local representative for each manufacturer.
e. Parts list for each product.
f. Final approved hardware schedule, edited to reflect conditions as-installed.
g. Final keying schedule
h. Copies of floor plans with keying nomenclature
i. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.
j. Copy of warranties including appropriate reference numbers for manufacturers to identify project.

1.05 QUALITY ASSURANCE

A. Supplier Qualifications and Responsibilities: Recognized architectural hardware supplier with record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project and that provides certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.

1. Warehousing Facilities: In Project's vicinity.
2. Scheduling Responsibility: Preparation of door hardware and keying schedules.

3. Engineering Responsibility: Preparation of data for electrified door hardware, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.
4. Coordination Responsibility: Assist in coordinating installation of electronic security hardware with Architect and electrical engineers and provide installation and technical data to Architect and other related subcontractors.

    a. Upon completion of electronic security hardware installation, inspect and verify that all components are working properly.

B. Architectural Hardware Consultant Qualifications: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:

1. For door hardware, DHI-certified, Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC).
2. Can provide installation and technical data to Architect and other related subcontractors.
3. Can inspect and verify components are in working order upon completion of installation.
4. Capable of producing wiring diagrams.
5. Capable of coordinating installation of electrified hardware with Architect and electrical engineers.

C. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.

D. Fire-Rated Door Openings: Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction. Provide only items of door hardware that are listed products tested by Underwriters Laboratories, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.

E. Electrified Door Hardware: Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.

F. Accessibility Requirements: For door hardware on doors in an accessible route, comply with governing accessibility regulations cited in “REFERENCES” article, herein.

G. Keying Conference

1. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:

    a. Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
    b. Preliminary key system schematic diagram.
    c. Requirements for key control system.
    d. Requirements for access control.
    e. Address for delivery of keys.

H. Pre-installation Conference

1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
2. Inspect and discuss preparatory work performed by other trades.
3. Inspect and discuss electrical roughing-in for electrified door hardware.
4. Review sequence of operation for each type of electrified door hardware.
5. Review required testing, inspecting, and certifying procedures.

I. Coordination Conferences:

1. Installation Coordination Conference: Prior to hardware installation, schedule and hold meeting to review questions or concerns related to proper installation and adjustment of door hardware.
2. Electrified Hardware Coordination Conference: Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site.

B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package.

1. Deliver each article of hardware in manufacturer’s original packaging.

C. Project Conditions:

1. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.
2. Provide secure lock-up for door hardware delivered to Project. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.

D. Protection and Damage:

1. Promptly replace products damaged during shipping.
2. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work.
3. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.

E. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

F. Deliver keys and permanent cores to Owner by registered mail or overnight package service.

1.07 COORDINATION

A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.

B. Installation Templates: Distribute for doors, frames, and other work specified to be factory or shop prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.

D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

E. Existing Openings: Where existing doors, frames and/or hardware are to remain, field verify existing functions, conditions and preparations and coordinate to suit opening conditions and to provide proper door operation.

1.08 WARRANTY

A. Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.

1. Warranty Period: Beginning from date of Substantial Completion, for durations indicated.

a. Closers:
1) Mechanical: 25 years.

b. Locksets:
1) Mechanical: 10 years.

c. Key Blanks: Lifetime

2. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.

1.09 MAINTENANCE

A. Maintenance Tools: Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

PRODUCTS

2.01 MANUFACTURERS

A. The Owner requires use of certain products for their unique characteristics and project suitability to insure continuity of existing and future performance and maintenance standards. After investigating available product offerings, the Awarding Authority has elected to prepare proprietary specifications. These products are specified with the notation: “No Substitute.”

1. Where “No Substitute” is noted, submittals and substitution requests for other products will not be considered.

B. Approval of manufacturers and/or products other than those listed as “Scheduled Manufacturer” or “Acceptable Manufacturers” in the individual article for the product category shall be in accordance with QUALITY ASSURANCE article, herein.

C. Approval of products from manufacturers indicated in “Acceptable Manufacturers” is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer’s product.

D. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.02 MATERIALS

A. Fasteners

1. Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation.
2. Furnish screws for installation with each hardware item. Finish exposed (exposed under any condition) screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
3. Provide concealed fasteners for hardware units exposed when door is closed except when no standard units of type specified are available with concealed fasteners. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work unless thru-bolts are required to fasten hardware securely. Review door specification and advise Architect if thru-bolts are required.
4. Install hardware with fasteners provided by hardware manufacturer.

B. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.

1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.

C. Cable and Connectors: Hardwired Electronic Access Control Lockset and Exit Device Trim:

1. Data: 24AWG, 4 conductor shielded, Belden 9843, 9841 or comparable.
2. DC Power: 18 AWG, 2 conductor, Belden 8760 or comparable.
3. Provide type of data and DC power cabling required by access control device manufacturer for this installation.
4. Where scheduled in the hardware sets, provide each item of electrified hardware and wire harnesses with sufficient number and wire gauge with standardized Molex plug connectors to accommodate electric function of specified hardware. Provide Molex connectors that plug directly into connectors from harnesses, electric locking and power transfer devices. Provide through-door wire harness for each electrified locking device installed in a door and wire harness for each electrified hinge, electrified continuous hinge, electrified pivot, and electric power transfer for connection to power supplies.

2.03 HINGES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Ives 5BB series.
2. Acceptable Manufacturers and Products: Hager BB series, McKinney TA/T4A series, Stanley FBB Series.

B. Requirements:

1. Provide hinges conforming to ANSI/BHMA A156.1.
2. 1-3/4 inch (44 mm) thick doors, up to and including 36 inches (914 mm) wide:

    a. Exterior: Standard weight, bronze or stainless steel, 4-1/2 inches (114 mm) high
    b. Interior: Standard weight, steel, 4-1/2 inches (114 mm) high

3. 1-3/4 inch (44 mm) thick doors over 36 inches (914 mm) wide:

    a. Exterior: Heavy weight, bronze/stainless steel, 5 inches (127 mm) high
    b. Interior: Heavy weight, steel, 5 inches (127 mm) high

4. 2 inches or thicker doors:

    a. Exterior: Heavy weight, bronze or stainless steel, 5 inches (127 mm) high
    b. Interior: Heavy weight, steel, 5 inches (127 mm) high

5. Provide three hinges per door leaf for doors 90 inches (2286 mm) or less in height, and one additional hinge for each 30 inches (762 mm) of additional door height.
6. Where new hinges are specified for existing doors or existing frames, provide new hinges of identical size to hinge preparation present in existing door or existing frame.
7. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:

    a. Steel Hinges: Steel pins
    b. Non-Ferrous Hinges: Stainless steel pins
    c. Out-Swinging Exterior Doors: Non-removable pins
    d. Out-Swinging Interior Lockable Doors: Non-removable pins
    e. Interior Non-lockable Doors: Non-rising pins

8. Width of hinges: 4-1/2 inches (114 mm) at 1-3/4 inch (44 mm) thick doors, and 5 inches (127 mm) at 2 inches (51 mm) or thicker doors. Adjust hinge width as required for door, frame, and wall conditions to allow proper degree of opening.
9. Provide hinges with electrified options as scheduled in the hardware sets. Provide with sufficient number and wire gage to accommodate electric function of specified hardware. Locate electric hinge at second hinge from bottom or nearest to electrified locking component.
10. Provide mortar guard for each electrified hinge specified.
11. Provide spring hinges where specified. Provide two spring hinges and one bearing hinge per door leaf for doors 90 inches (2286 mm) or less in height. Provide one additional bearing hinge for each 30 inches (762 mm) of additional door height.

2.04 CYLINDRICAL LOCKS – GRADE 1

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: Schlage ND series.
2. Acceptable Manufacturers and Products: No substitutions

B. Requirements:

1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1, and UL Listed for 3 hour fire doors.
2. Cylinders: Refer to “KEYING” article, herein.
3. Provide locks with standard 2-3/4 inches (70 mm) backset, unless noted otherwise, with 1/2 inch latch throw. Provide proper latch throw for UL listing at pairs.
4. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
5. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
6. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
7. Provide electrified options as scheduled in the hardware sets.
8. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.

    a. Lever Design: Schlage Sparta.

2.05 EXIT DEVICES

A. Manufacturers and Products:

1. **Scheduled Manufacturer and Product: Von Duprin 99/33 series**
2. Acceptable Manufacturers and Products: No Substitute

B. Requirements:

1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1, and UL listed for Panic Exit or Fire Exit Hardware. Cylinders: Refer to “KEYING” article, herein.
2. Provide touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.

3. Touchpad: Extend minimum of one half of door width. Match exit device finish, stainless steel for US26, US26D, US28, US32, and US32D finishes; and for all other finishes, provide compatible finish to exit device. Provide compression springs in devices, latches, and outside trims or controls; tension springs also acceptable.
4. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
5. Provide exit devices with manufacturer's approved strikes.
6. Provide exit devices cut to door width and height. Locate exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
7. Mount mechanism case flush on face of doors, or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
8. Provide cylinder dogging at non-fire-rated exit devices, unless specified less dogging.
9. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion that is removed by use of a keyed cylinder, which is self-locking when re-installed.
10. Where lever handles are specified as outside trim for exit devices, provide heavy-duty lever trims with forged or cast escutcheon plates. Provide vandal-resistant levers that will travel to 90-degree down position when more than 35 pounds of torque are applied, and which can easily be re-set.

    a. Lever Style: Match lever style of locksets.
    b. Tactile Warning (Knurling): Where required by authority having jurisdiction. Provide on levers on exterior (secure side) of doors serving rooms considered to be hazardous.

11. Concealed Vertical Cable Exit Devices: provide cable-actuated concealed vertical latch system in two-point for non-rated or fire rated wood doors up to a 90 minute rating and less bottom latch (LBL) configuration for non-rated or fire rated wood doors up to 20 minute rating. Vertical rods not permitted.

    a. Cable: Stainless steel with abrasive resistant coating. Conduit and core wire ends snap into latch and center slides without use of tools.
    b. Wood Door Prep: Maximum 1 inch x 1.1875 inch x 3.875 inches top latch pocket and 1 inch x 1.1875 inch x 5 inches bottom latch pocket which does not require the use of a metal wrap or edge for non-rated or fire rated wood doors up to a 45 minute rating.
    c. Latchbolts and Blocking Cams: Manufactured from sintered metal low carbon copper- infiltrated steel, with molybdenum disulfide low friction coating.
    d. Top Latchbolt: Minimum 0.38 inch (10 mm) and greater than 90 degree engagement with strike to prevent door and frame separation under high static load.
    e. Bottom Latchbolt: Minimum of 0.44 inch (11 mm) engagement with strike.
    f. Product Cycle Life: 1,000,000 cycles.
    g. Latch Operation: Top and bottom latch operate independently of each other. Top latch fully engages top strike even when bottom latch is compromised. Separate trigger mechanisms not permitted.
    h. Latch release does not require separate trigger mechanism.
    i. Cable and latching system characteristics:
        1) Installed independently of exit device installation, and capable of functioning on door prior to device and trim installation.

2) Connected to exit device at single point in steel and aluminum doors, and two points for top and bottom latches in wood doors.
3) Bottom latch height adjusted, from single point for steel and aluminum doors and two points for wood doors, after system is installed and connected to exit device, while door is hanging
4) Bottom latch position altered up and down minimum of 2 inches (51 mm) in steel and aluminum doors without additional adjustment. Bottom latch deadlocks in every adjustment position in wood doors.
5) Top and bottom latches in steel and aluminum doors and top latch in wood doors may be removed while door is hanging.
6) Top latch mounting: double or single tab mount for steel doors, face mount for aluminum doors eliminating requirement of tabs, and double tab mount for wood doors.

12. Provide UL labeled fire exit hardware for fire rated openings.
13. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
14. Provide electrified options as scheduled.

2.06 KEYING

A. Provide a factory registered keying system, complying with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference.

B. Provide cylinders/cores keyed into Owner's existing Schlage factory registered keying system.

C. Comply with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference.

D. Requirements:

1. Provide permanent cylinders/cores keyed by the manufacturer according to the following key system.

   a. Master Keying system as directed by the Owner.

2. Forward bitting list and keys separately from cylinders, by means as directed by Owner. Failure to comply with forwarding requirements will be cause for replacement of cylinders/cores involved at no additional cost to Owner.
3. Provide keys with the following features:

   a. Material: Nickel silver; minimum thickness of .107-inch (2.3mm)

4. Identification:

   a. Mark permanent cylinders/cores and keys with applicable blind code per DHI publication "Keying Systems and Nomenclature" for identification. Do not provide blind code marks with actual key cuts.
   b. Identification stamping provisions must be approved by the Architect and Owner.

c. Stamp cylinders/cores and keys with Owner's unique key system facility code as established by the manufacturer; key symbol and embossed or stamped with "DO NOT DUPLICATE" along with the "PATENTED" or patent number to enforce the patent protection.
d. Failure to comply with stamping requirements will be cause for replacement of keys involved at no additional cost to Owner.
e. Forward permanent cylinders/cores to Owner, separately from keys, by means as directed by Owner.

5. Quantity: Furnish in the following quantities.

a. Change (Day) Keys: 3 per cylinder/core.
b. Permanent Control Keys: 3.
c. Master Keys: 6.

2.07 DOOR CLOSERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product: LCN 4050 series.
2. Acceptable Manufacturers and Products: No substitutions

B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. ISO 9000 certify closers. Stamp units with date of manufacture code.
2. Provide door closers with fully hydraulic, full rack and pinion action with cast aluminum cylinder.
3. Closer Body: 1-1/2 inch (38 mm) diameter with 11/16 inch (17 mm) diameter heat-treated pinion journal and full complement bearings.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and all weather requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and back check.
7. Pressure Relief Valve (PRV) Technology: Not permitted.
8. Provide stick on templates, special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

2.08 DOOR TRIM

A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Rockwood.

B. Requirements:

1. Provide push plates 4 inches (102 mm) wide by 16 inches (406 mm) high by 0.050 inch (1 mm) thick and beveled 4 edges. Where width of door stile prevents use of 4 inches (102 mm) wide plate, adjust width to fit.
2. Provide push bars of solid bar stock, diameter and length as scheduled. Provide push bars of sufficient length to span from center to center of each stile. Where required, mount back to back with pull.
3. Provide offset pulls of solid bar stock, diameter and length as scheduled. Where required, mount back to back with push bar.
4. Provide flush pulls as scheduled. Where required, provide back-to-back mounted model.
5. Provide pulls of solid bar stock, diameter and length as scheduled. Where required, mount back to back with push bar.
6. Provide pull plates 4 inches (102 mm) wide by 16 inches (406 mm) high by 0.050 inch (1 mm) thick, beveled 4 edges, and prepped for pull. Where width of door stile prevents use of 4 inches (102 mm) wide plate, adjust width to fit.
7. Provide wire pulls of solid bar stock, diameter and length as scheduled.
8. Provide decorative pulls as scheduled. Where required, mount back to back with pull.

2.09 PROTECTION PLATES

A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Rockwood.

B. Requirements:

1. Provide kick plates, mop plates, and armor plates minimum of 0.050 inch (1 mm) thick, beveled four edges as scheduled. Furnish with sheet metal or wood screws, finished to match plates.
2. Sizes of plates:

    a. Kick Plates: 10 inches (254 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs
    b. Mop Plates: 4 inches (102 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs
    c. Armor Plates: 36 inches (914 mm) high by 2 inches (51 mm) less width of door on single doors, 1 inch (25 mm) less width of door on pairs

2.10 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

A. Manufacturers:

1. Scheduled Manufacturers: Glynn-Johnson.
2. Acceptable Manufacturers: Rixson, Sargent.

B. Requirements:

1. Provide heavy duty concealed mounted overhead stop or holder as specified for exterior and interior vestibule single acting doors.
2. Provide heavy duty concealed mounted overhead stop or holder as specified for double acting doors.
3. Provide heavy or medium duty and concealed or surface mounted overhead stop or holder for interior doors as specified. Provide medium duty surface mounted overhead stop for interior doors and at any door that swings more than 140 degrees before striking wall, open against equipment, casework, sidelights, and where conditions do not allow wall stop or floor stop presents tripping hazard.
4. Where overhead holders are specified provide friction type at doors without closer and positive type at doors with closer.

2.11 DOOR STOPS AND HOLDERS

A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Rockwood.

B. Provide door stops at each door leaf:

1. Provide wall stops wherever possible. Provide convex type where mortise type locks are used and concave type where cylindrical type locks are used.
2. Where a wall stop cannot be used, provide universal floor stops for low or high rise options.
3. Where wall or floor stop cannot be used, provide medium duty surface mounted overhead stop.

2.12 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

A. Manufacturers:

1. Scheduled Manufacturer: Zero International.
2. Acceptable Manufacturers: National Guard, Reese.

B. Requirements:

1. Provide thresholds, weather-stripping (including door sweeps, seals, and astragals) and gasketing systems (including smoke, sound, and light) as specified and per architectural details. Match finish of other items.
2. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
3. Size of thresholds:

    a. Saddle Thresholds: 1/2 inch (13 mm) high by jamb width by door width

b. Bumper Seal Thresholds: 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width

4. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.

2.13 SILENCERS

A. Manufacturers:

1. Scheduled Manufacturer: Ives.
2. Acceptable Manufacturers: Burns, Rockwood.

B. Requirements:

1. Provide "push-in" type silencers for hollow metal or wood frames.
2. Provide one silencer per 30 inches (762 mm) of height on each single frame, and two for each pair frame.
3. Omit where gasketing is specified.

2.14 FINISHES

A. Finish: BHMA 626/652 (US26D); except:

1. Push Plates, Pulls, and Push Bars: BHMA 630 (US32D)
2. Protection Plates: BHMA 630 (US32D)
3. Overhead Stops and Holders: BHMA 630 (US32D)
4. Door Closers: Powder Coat to Match
5. Wall Stops: BHMA 630 (US32D)

EXECUTION

3.01 EXAMINATION

A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

A. Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.

1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
2. Custom Steel Doors and Frames: HMMA 831.
3. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."

B. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.

C. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.

D. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.

E. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.

F. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.

G. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated or one hinge for every 30 inches (750 mm) of door height, whichever is more stringent, unless other equivalent means of support for door, such as spring hinges or pivots, are provided.

H. Lock Cylinders: Install construction cores to secure building and areas during construction period.

1. Replace construction cores with permanent cores as indicated in keying section.

I. Wiring: Coordinate with Division 26, ELECTRICAL sections for:

1. Conduit, junction boxes and wire pulls.
2. Connections to and from power supplies to electrified hardware.
3. Connections to fire/smoke alarm system and smoke evacuation system.
4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
5. Testing and labeling wires with Architect's opening number.

J. Door Closers: Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Mount closers so they are not visible in corridors, lobbies and other public spaces unless approved by Architect.

K. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.

L. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.

3.03 FIELD QUALITY CONTROL

A. Engage qualified manufacturer trained representative to perform inspections and to prepare inspection reports.

1. Representative will inspect door hardware and state in each report whether installed work complies with or deviates from requirements, including whether door hardware is properly installed and adjusted.

3.04 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

1. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.

B. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, Installer's Architectural Hardware Consultant must examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

3.05 CLEANING AND PROTECTION

A. Clean adjacent surfaces soiled by door hardware installation.

B. Clean operating items as necessary to restore proper function and finish.

C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.06 DOOR HARDWARE SCHEDULE

A. Hardware items are referenced in the following hardware. Refer to the above-specifications for special features, options, cylinders/keying, and other requirements.

B. Hardware Sets:

Hardware Group No. 01

For use on Door #(s):

111 112 118

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	WIRELESS ACCESS CONTROL LOCK	FURNISHED BY OTHERS	626	SAL
1	EA	SURFACE CLOSER	4050A RW/PA	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	MOP PLATE	8400 4" X 1" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	188SBK PSA	BK	ZER

Hardware Group No. 02

For use on Door #(s):

104

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	WIRELESS ACCESS CONTROL LOCK	FURNISHED BY OTHERS	626	SAL
1	EA	SURFACE CLOSER	4050A EDA	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	MOP PLATE	8400 4" X 1" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 03

For use on Door #(s):

108 109 114 115 116 117
120

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	WIRELESS ACCESS CONTROL LOCK	FURNISHED BY OTHERS	626	SAL
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 04

For use on Door #(s):

102 103

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CASED OPENING	NO HARDWARE REQUIRED		

Hardware Group No. 05

For use on Door #(s):

105 119 120A

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	PRIVACY LOCK	L9040 17A L583-363 L283-722	626	SCH
1	EA	SURFACE CLOSER	4050A RW/PA	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	MOP PLATE	8400 4" X 1" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	SILENCER	SR64	GRY	IVE

Hardware Group No. 06

For use on Door #(s):

106 107

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	ENTRANCE/OFFICE LOCK	ND50TD SPA	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	SURFACE CLOSER	4050A RW/PA	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	MOP PLATE	8400 4" X 1" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	188SBK PSA	BK	ZER

Hardware Group No. 07

For use on Door #(s):

121

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
1	EA	WIRELESS ACCESS CONTROL LOCK	FURNISHED BY OTHERS	626	SAL
1	EA	FIRE EXIT HARDWARE	99-EO-F	626	VON
1	EA	FSIC CORE	23-030	626	SCH
1	EA	OH STOP	100S	630	GLY
1	EA	SURFACE CLOSER	4050A EDA	689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1	EA	GASKETING	188SBK PSA	BK	ZER

Hardware Group No. 08

For use on Door #(s):

101

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	HARDWIRED ACCESS CONTROL LOCK	FURNISHED BY OTHERS	626	SAL
1	EA	MORTISE CYLINDER	20-060 X K510-711	626	SCH
1	EA	FSIC CORE	23-030	626	SCH
1	EA	MAGNETIC LOCK	M492P 12/24 VDC	628	SCE
1	EA	PUSH BUTTON	623RD	630	SCE
1	EA	KEY SWITCH	653-04 L2 12/24 VDC	626	SCE
1	EA	MOTION SENSOR	SCANII 12/24 VDC	WHT	SCE
1	EA	POWER SUPPLY	PS902 900-2RS-FA 120/240 VAC	LGR	SCE
1			BALANCE OF HARDWARE EXISTING		

OPERATION: AFTER HOURS.VAILD CRENTIAL RELEASES MAGNET AND ALLOWS MECHANICAL KEY TO OPEN DOOR. DURING BUISNESS HOURS PANICS ARE MECHANICALLY DOGGED DOWN AND LOCKED BY MAGNETS. VALID CREDENTIAL RELEASES MAGNET AND ALLOWS ENTRY. KEYSWITCH TURNS MAGNETS OFF AND ON. DURING FIRE EVENT MAGNETS ARE TURNED OFF BY FIRE ALARM PANEL.
FREE EGRESS AT ALL TIMES.

Hardware Group No. 09

For use on Door #(s):

100A-E 100C 101-E 110 120B

Provide each OPENING with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	HARDWIRED ACCESS CONTROL LOCK	FURNISHED BY OTHERS	626	SAL
1	EA	ELECTRIC STRIKE	6300 FSE 12/24 VAC/VDC	630	VON
1	EA	POWER SUPPLY	PS902 900-2RS-FA 120/240 VAC	LGR	SCE
1			BALANCE OF HARDWARE EXISTING		

DOOR HARDWARE SET ATTACHED FOR REFERENCE ONLY. CONTRACTOR TO VERIFY HARDWARE SETS WITH DOOR SCHEDULE.

DOOR NUMBERS	HWSET#
100A-E	09
100C	09
101	08
101-E	09
102	04
103	04
104	02
105	05
106	06
107	06
108	03
109	03
110	09
111	01
112	01
114	03
115	03
116	03
117	03
118	01
119	05
120	03
120A	05
120B	09
121	07

Salto Wireless System Door Access Control Specifications

HARDWIRED DOOR SYSTEM(S):
Total of (6) Hardwired Doors needed

Any wall mounted reader that needs to cover an electrical box.
- WRDB0A4B

Any reader needed to be mounted on the frame of the door.
- WRDB0M4B
- See Data Sheet XS4 Wall Reader 2.0 WRDBxxx (WRDBx_eng-05_16.pdf)
- See Data Sheet Wall Reader On-Line/Technical Specifications: Mullion Reader (WRMULLION-ENG-04-18.pdf)

(3) Hardwired door controllers are needed.
(1) CU42E0US
(2) CU400US
- See Data Sheet XS4 2.0 Controller CU42xx (XS4CU42xx_eng.pdf)

Power Supply Cabinet that houses the Salto Controllers and provides power for all locking hardware in one cabinet

(1) fpo75-b100c8d8e2-3sl1
- See Data Sheet Flex Power FPO75-B100C8D8E2-3SL1 Six Door Salto Unified Power System (ds_fpo75-b100c8d8e2-3sl1.pdf)

WIRELESS DOOR SYSTEMS
(14) CB250N60CSB38
- See Data Sheet XS4 MINI-ANSI Ci2x0 (XS4Mini_Ci2x0_eng_09_16)

(1) GATEWAYW3CUS
- See Data Sheet GATEWAYx3C Technical Specifications | Gateway x3C – Wireless Salto Bluenet (Gatewayx3C-ENG-17-12.pdf)

(2) RFNODE3
- See Data Sheet RFNODE3 Technical Specifications | RFNODE3 – Wireless SaltoBluenet (RFNODE3-ENG-17-12.pdf)

(14) SPACE-OPT-0033
- Part number above is for 2 3/8" backset. If 2 3/4" backset is needed just replace the "60" in the part number to "70".

Existing access control system was installed by: NewTech Systems, Inc. / 420 16th Street / Dunbar, WV25064 / 304-766-0000

All doors requiring card readers shall match Owner's existing system: Salto Wireless Door Access Control. Contact Ken Costello / SVC Marketing / 304-288-8814 / ken@svcmarketinginc.com

//DATASHEET

XS4 Wall READER 2.0

Cutting-edge design + Outstanding technology:

The SALTO XS4 Wall Reader 2.0 incorporates the cutting edge design standard of the XS4 2.0 product range in this technological powerhouse.

XS4 2.0 READER
WRDBxxx

SALTO
inspiredaccess

MIFARE DESFire

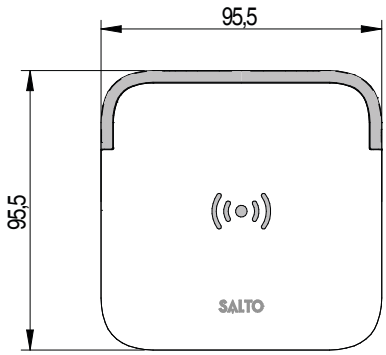
Bluetooth® SMART

SALTO XS4
WALL READER

The SALTO XS4 Wall Reader 2.0 incorporates the cutting-edge design standard of the XS4 2.0 product range in this technological powerhouse. The SALTO XS4 Wall Reader 2.0 in combination with the SALTO XS4 2.0 Controller, facilitates the integration of the wall reader with almost any SALTO interface such as SALTO ProAccess SPACE, to provide your facility with a complete security solution.

XS4 WALL READER 2.0: STANDARD

WRDB0E04



MAIN FEATURES:

- Modern aesthetic design with clear LED signaling.
- Conical shape.
- Fully integrated with the SALTO XS4 platform.
- Virtual network capable through SALTO Virtual Network technology.
- ID technologies available: DESfire, DESfire EV1, Mifare, Mifare plus, Mifare Ultralight C, SKIDATA and Bluetooth Low Energy.
- NFC compatible.
- All communications between the carrier and the wall reader are encrypted and secure[2].
- Acoustic and optical signalling, dual colour green/red to indicate access authorisation.
- Available in 2 different finishes: White and Black.
- Concealed fixing screw for greater security and improved aesthetics.
- Contactless reading of the carrier, Reading distance up to 35mm (depending on the credential).

MECHANICAL ASPECTS:

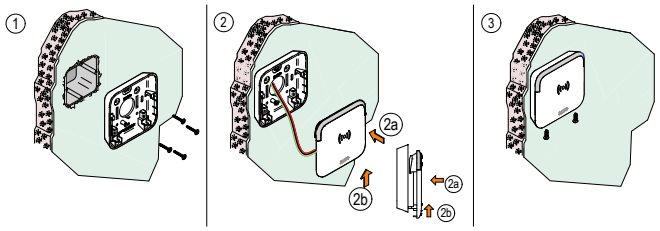
- Dimensions: 95,5mm x 95,5mm x 22mm (W x H x D).

CERTIFICATIONS:

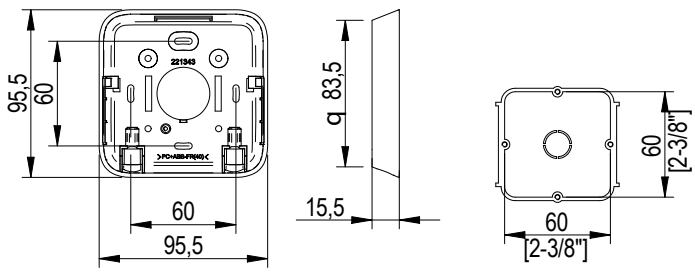
- IP 66 compliant, suitable for outdoor and indoor use.
- CE comform (pending).
- UL 294 (pending).
- FCC certified (pending)..

- The maximum cable length between the door controller and the wall reader is 400meters[1]. using a twisted pair cable.
- Connection to the door controller using AWG24 twisted pair or AWG18 cable connection.
- Powered by the controller.
- Emergency opening by means of contactless portable programming device (PPD).

INSTALLATION:



COMPATIBLE WITH STANDARD EUROPEAN ELECTRICAL BOX



[1] Depending on the cable.
[2] Depending on the card and the RFID technology

SALTO inspiredaccess

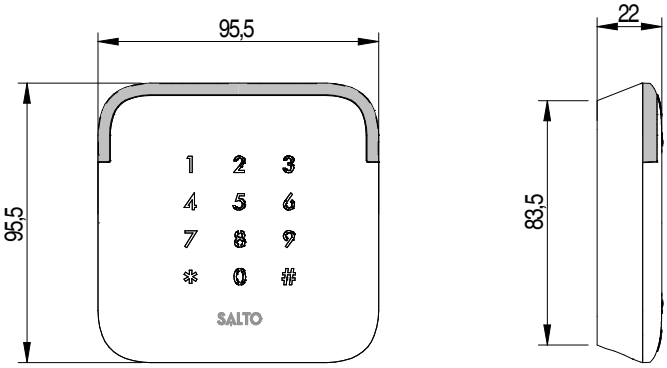
SALTO XS4
WALL READER WITH KEYPAD

The SALTO XS4 Wall Reader 2.0 with keypad incorporates the cutting-edge design standard of the XS4 2.0 product range in this technological powerhouse. The SALTO XS4 Wall Reader 2.0 in combination with the SALTO XS4 2.0 Controller, facilitates the integration of the wall reader with almost any SALTO interface such as SALTO ProAccess SPACE, to provide your facility with a complete security solution.

This product allows for the additional use of a Personal Identification Number (PIN) key pad option increasing the security by using a double autentication and enhanced more opening modes.

XS4 WALL READER 2.0: READER + KEYPAD

WRDB0E04WK



MAIN FEATURES:

- Modern aesthetic design with clear LED signaling.
- Conical shape.
- Capacitive keypad.
- Fully integrated with the SALTO XS4 platform.
- Virtual network capable through SALTO Virtual Network technology.
- ID technologies available: DESfire, DESfire EV1, Mifare, Mifare plus, Mifare Ultralight C, SKIDATA and Bluetooth Low Energy.
- NFC compatible.
- Permits additional opening modes and user authentication through a user PIN.
- All communications between the carrier and the wall reader are encrypted and secure[2].
- Acoustic and optical signalling, dual colour green/red to indicate access authorisation.
- Available in 2 different finishes: White and Black.
- Keys are iluminatd for better usability (intelligent lightening).

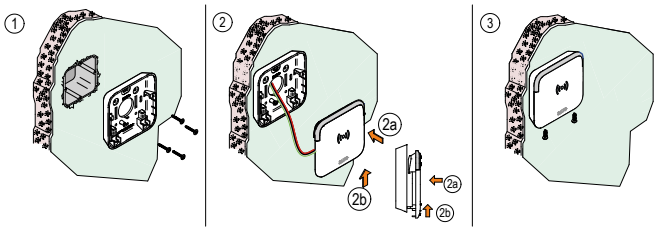
SPECIFIC OPENING MODES:
- Opening through key card.
- Opening Card plus personal PIN.
- Opening through doorr code.
-

MECHANICAL ASPECTS:
- Dimensions: 95,5mm x 95,5mm x 22mm (W x H x D).

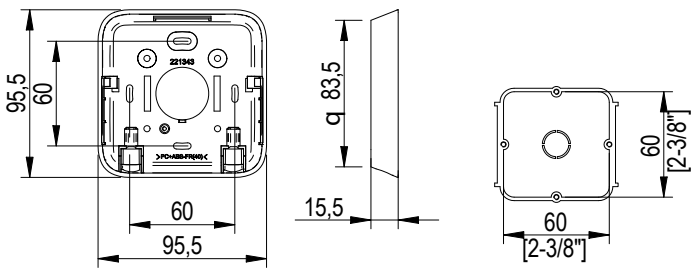
CERTIFICATIONS:
- IP 66 compliant, suitable for outdoor and indoor use.
- CE comform (pending).
- UL 294 (pending).
- FCC certified (pending).

- Concealed fixing screw for greater security and improved aesthetics.
- Contactless reading of the carrier, Reading distance up to 35mm (depending on the credential).
- The maximum cable length between the door controller and the wall reader is 400meters[1]. using a twisted pair cable.
- Connection to the door controller using AWG24 twisted pair or AWG18 cable connection.
- Powered by the controller.
- Emergency opening by means of contactless portable programming device (PPD).

INSTALLATION:



COMPATIBLE WITH STANDARD EUROPEAN ELECTRICAL BOX



[1] Depending on the cable.
[2] Depending on the card and the RFID technology

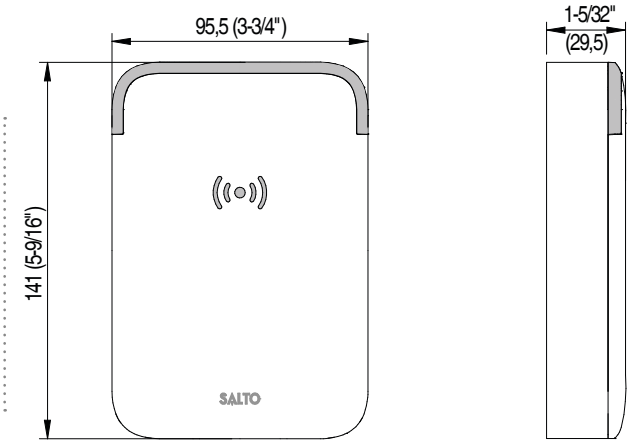
SALTO
inspiredaccess

SALTO XS4
WALL READER

The SALTO XS4 Wall Reader 2.0 incorporates the cutting-edge design standard of the XS4 2.0 product range in this technological powerhouse. The SALTO XS4 Wall Reader 2.0 in combination with the SALTO XS4 2.0 Controller, facilitates the integration of the wall reader with almost any SALTO interface such as SALTO ProAccess SPACE, to provide your facility with a complete security solution.
This wall reader has been designed to fit on standard ANSI electrical box.

XS4 WALL READER 2.0: STANDARD

WRDB0A04



MAIN FEATURES:

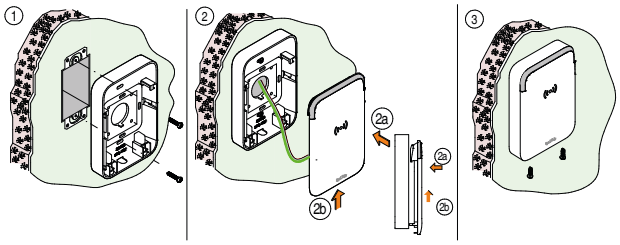
- Modern aesthetic design with clear LED signaling.
- Conical shape.
- Fully integrated with the SALTO XS4 platform.
- Virtual network capable through SALTO Virtual Network technology.
- ID technologies available: DESfire, DESfire EV1, Mifare, Mifare plus, Mifare Ultralight C, SKIDATA and Bluetooth Low Energy.
- NFC compatible.
- All communications between the carrier and the wall reader are encrypted and secure[2].
- Acoustic and optical signalling, dual colour green/red to indicate access authorisation.
- Available in 2 different finishes: White and Black.
- Concealed fixing screw for greater security and improved aesthetics.
- Contactless reading of the carrier, Reading distance up to 35mm (depending on the credential).

MECHANICAL ASPECTS:
- Dimensions: 95,5mm x 141mm x 29,5mm (W x H x D).

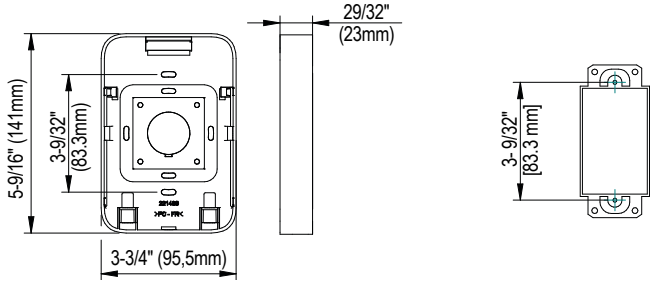
CERTIFICATIONS:
- IP 66 compliant, suitable for outdoor and indoor use.
- CE comform (pending).
- UL 294 (pending).
- FCC certified (pending).

- The maximum cable length between the door controller and the wall reader is 400meters[1]. using a twisted pair cable.
- Connection to the door controller using AWG24 twisted pair or AWG18 cable connection.
- Powered by the controller.
- Emergency opening by means of contactless portable programming device (PPD).

INSTALLATION:



COMPATIBLE WITH STANDARD ANSI ELECTRICAL BOX



[1] Depending on the cable.
[2] Depending on the card and the RFID technology

SALTO
inspiredaccess

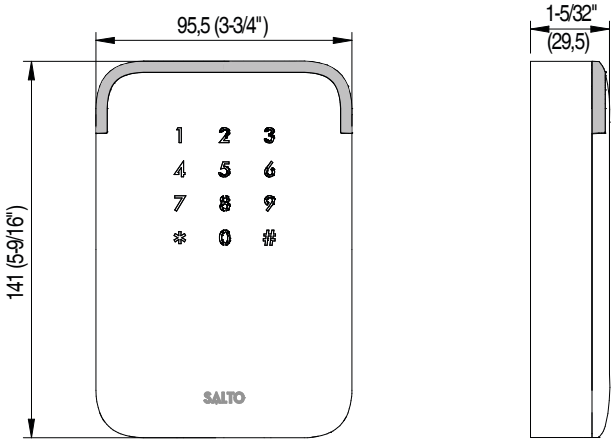
SALTO XS4
WALL READER WITH KEYPAD

The SALTO XS4 Wall Reader 2.0 incorporates the cutting-edge design standard of the XS4 2.0 product range in this technological powerhouse. The SALTO XS4 Wall Reader 2.0 in combination with the SALTO XS4 2.0 Controller, facilitates the integration of the wall reader with almost any SALTO interface such as SALTO ProAccess SPACE, to provide your facility with a complete security solution.

This product allows for the additional use of a Personal Identification Number (PIN) key pad option increasing the security by using a double autentication and enhanced more opening modes.

XS4 2.0 READER: READER + KEYPAD

WRDB0A04WK



MAIN FEATURES:

- Modern aesthetic design with clear LED signaling.
- Conical shape.
- Capacitive keypad.
- Fully integrated with the SALTO XS4 platform.
- Virtual network capable through SALTO Virtual Network technology.
- ID technologies available: DESfire, DESfire EV1, Mifare, Mifare plus, Mifare Ultralight C, SKIDATA and Bluetooth Low Energy.
- NFC compatible.
- Permits additional opening modes and user authentication through a user PIN.
- All communications between the carrier and the wall reader are encrypted and secure[2].
- Acoustic and optical signalling, dual colour green/red to indicate access authorisation.
- Available in 2 different finishes: White and Black.
- Keys are iluminatd for better usability (intelligent lightening).

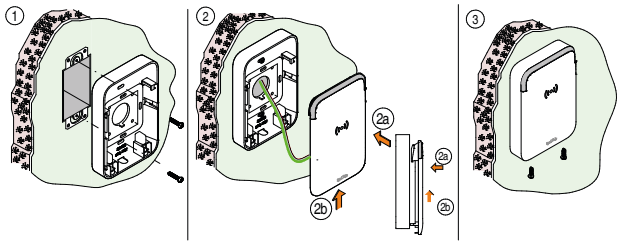
SPECIFIC OPENING MODES:
- Opening through key card.
- Opening Card plus personal PIN.
- Opening through doorr code.

MECHANICAL ASPECTS:
- Dimensions: 95,5mm x 141mm x 29,5mm (W x H x D).

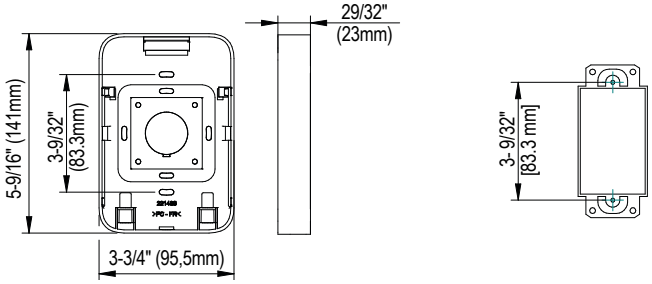
CERTIFICATIONS:
- IP 66 compliant, suitable for outdoor and indoor use.
- CE comform (pending).
- UL 294 (pending).
- FCC certified (pending).

- Concealed fixing screw for greater security and improved aesthetics.
- Contactless reading of the carrier, Reading distance up to 35mm (depending on the credential).
- The maximum cable length between the door controller and the wall reader is 400meters[1]. using a twisted pair cable.
- Connection to the door controller using AWG24 twisted pair or AWG18 cable connection.
- Powered by the controller.
- Emergency opening by means of contactless portable programming device (PPD).

INSTALLATION:



COMPATIBLE WITH STANDARD ANSI ELECTRICAL BOX



[1] Depending on the cable.
[2] Depending on the card and the RFID technology

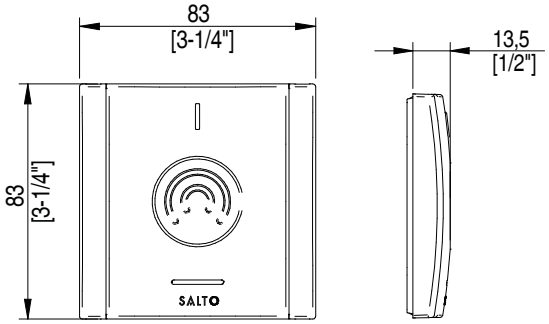
SALTO
inspiredaccess

SALTO XS4
MODULAR WALL READER

The SALTO Modular Wall Reader 2.0 incorporates the cutting-edge design standard of the XS4 2.0 product range in this technological powerhouse. The SALTO XS4 Modular Wall Reader 2.0 in combination with the SALTO XS4 2.0 Controller, facilitates the integration of the wall reader with almost any SALTO interface such as SALTO ProAccess SPACE, to provide your facility with a complete security solution for any kind of installations even from adverse and harsh environments thank to the posibility to install it in combination with the antivandalic frame.

XS4 MODULAR WALL READER 2.0: STANDARD

WRMB0E04x



MAIN FEATURES:

- Robust aesthetic design with clear LED signaling.
- Squared shape.
- Fully integrated with the SALTO XS4 platform.
- Virtual network capable through SALTO Virtual Network technology.
- ID technologies available: DESfire, DESfire EV1, Mifare, Mifare plus, Mifare Ultralight C, SKIDATA and Bluetooth Low Energy.
- NFC compatible.
- All communications between the carrier and the wall reader are encrypted and secure[2].
- Acoustic and optical signalling, dual colour green/red to indicate access authorisation.
- Available in 3 different finishes: White, Black and Silver.
- For flush or surface mounting depending on the base (base sold separately.
- Concealed fixing screw for greater security and improved aesthetics.

MECHANICAL ASPECTS:

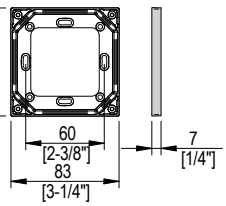
- Dimensions: 83mm x 83mm x 13,5mm (W x H x D). (excludes dimension of the base)

CERTIFICATIONS:

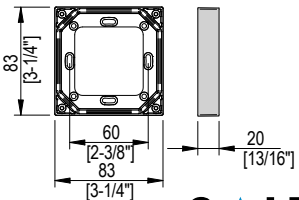
- IP 66 compliant, suitable for outdoor and indoor use.
- CE comform (pending).
- UL 294 (pending).
- FCC certified (pending).

INSTALLATION BASES - (sold separetely)

Base
WRMBL1
For flush
mounting

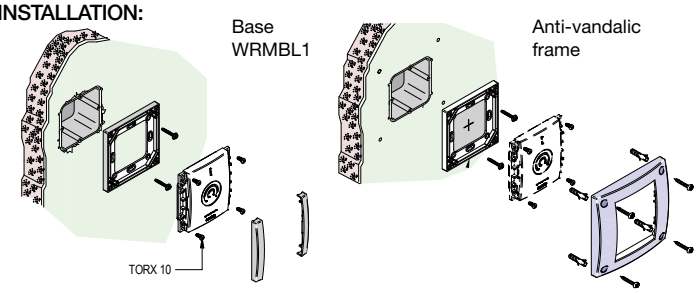


Base
WRMBH1
For surface
mounting

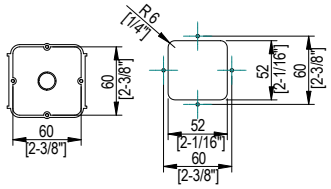


- Can be installed with an antivandalic frame (WRMFWAV for flush mounting or WRMFHAV for surface mounting) to protect the WRM wall reader from adverse and harsh environments.
- Contactless reading of the carrier, Reading distance up to 35mm (depending on the credential).
- The maximum cable length between the door controller and the wall reader is 400meters[1]. using a twisted pair cable.
- Connection to the door controller using AWG24 twisted pair or AWG18 cable connection.
- Powered by the controller.
- Emergency opening by means of contactless portable programming device (PPD).

INSTALLATION:



COMPATIBLE WITH STANDARD EUROPEAN ELECTRICAL BOX



SALTO
inspiredaccess

[1] Depending on the cable.
[2] Depending on the card and the RFID technology

DOOR CONTROLLER REQUIERED:

CU42E0 - ONLINE CONTROLLER

CU4200 - AUXILIAR OR OFFLINE CONTROLLER

The SALTO XS4 Wall Reader 2.0 needs to be used in combination with the XS4 2.0 Controller (CU42E0 or CU4200).
Depending on the specific requirements, the XS4 Wall Reader 2.0 will need to be connected to CU42E0 controller (online)or to the CU4200 controller (offline).

MIFARE:

Mifare RFID contactless technology reads & writes information to contactless smart cards (RFID) compatible with standards, such as Mifare, Mifare plus, DESFire, DESFire EV1 technologies or even Bluetooth Low Energy (BLE) technology. These technologies also allow for the updating of carriers via SALTO Virtual Network (SVN) technology.

- Fully integrated with the SALTO XS4 platform.
- 13.56MHz contactless RFID identification.
- ISO 14.443A - Mifare, Mifare plus, DESFire, DESFire EV1 Compatible.
- ISO 15.693 - Tag it, Icode, Flex Space (SKIDATA) Compatible.
- Near Field Communication (NFC) compatible.
- Available key cards: 1Kbyte, 4Kbytes and 8 Kbytes depending on technology.
- Available carriers: ISO 7810 cards, fobs, bracelets, stickers, watches…
- Reusable key cards.
- SALTO Virtual Network (SVN) compatible.
- RFID technology permits contactless exchange of information between the card and the reader.
- High security encrypted Proximity cards.
- Multi-application with other systems using the same card with different sectors.
- Customized issuing card through SALTO Authorization Media software (SAM).
- Waterproof cards which can be customized.

ID TECHNOLOGIES: RANGE OF RFID CREDENTIAL / KEYS AVAILABLE

- **MIFARE:** Mifare, Mifare plus, Ultralight C, DESfire, DESfire EV1 and Vicinity cards.

Contactless RFID Key Cards

Contactless RFID Fobs

Contactless RFID Silicone Bracelet

Contactless RFID Fobs Bracelet

MOBILE KEY SOLUTIONS:

mSVN SOLUTION:
With mSVN (Mobile SALTO Virtual Network) it´s now possible to update cards remotely and without using a fixed update point. All an end-user needs is an NFC-enabled smartphone to update their DESFire EV1 credential using SALTOs' JustIN mSVN App, thereby increasing the flexibility of an instalation's security.

MAIN FEATURES:
- **XS4 COMPABILITY:** XS4 Original RFID escutcheon range. Extensive range of escutcheon styles and sizes including European, Scandinavian, ANSI models and Wireless models (RFID models only).
- **SMARTPHONE:** Android minimum version: 2.3.3
- **SYSTEM REQUIREMENTS:** SALTO ProAccess SPACE software.
- **SMART KEY COMPABILITY:** DESFire EV1 (AES – 3DES encryption) (SALTO SAM Card required)
- **BLACKLIST** dissemination that increases security without the need to wire or visit doors.

MOBILE GUEST KEYS SOLUTION:
SALTO Bluetooth mobile guest key via SALTO's JustIN Key app communicates securely via the Cloud and enables a user to receive their door key online, anytime and anywhere.

MAIN FEATURES:
- **XS4 COMPABILITY:** XS4 Original RFID escutcheon range. Extensive range of escutcheon styles and sizes including European, Scandinavian, ANSI models and Wireless models (RFID models only - no Keypad).
- **SSL:** Secure Socket Layer.
- **AES 128 BIT** encryption opening procedures.
- **SMARTPHONE Compability:** iOS and Android devices.
- **SYSTEM REQUIREMENTS:** SALTO ProAcess SPACE software.

SALTO inspiredaccess

DATASHEET

WALL READER ON-LINE by SALTO

SALTO offers a wide range of wall readers that, in combination with SALTO Door Controllers enable the expansion of SALTO access control benefits to all those doors where a stand-alone electronic lock cannot be fitted, i.e. barriers, lifts, sliding doors or electronic gates, where control must be boosted by online real-time access control.

www.saltosystems.com

TECHNICAL SPECIFICATIONS:
MULLION READER

SALTO
inspiredaccess

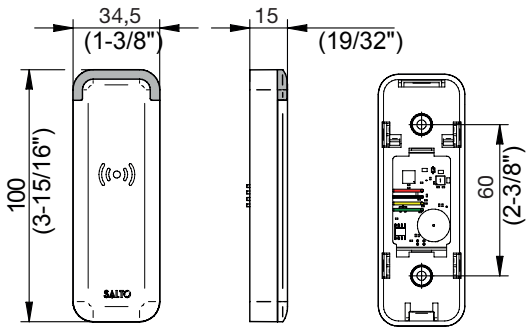
TECHNICAL DATA:

Housing dimensions (H x W x D):	34,5 x 100 x 15 mm
Weight:	61 g
Cover material:	ASA PC
IP class:	IP66
Certifications:	CE, FCC/IC, RCM, MIC, UL294

ELECTRONIC FEATURES:

Power:	12V supplied by the door controller.
Connection to the door controller:	AWG24 twisted pair or AWG18 cable connection.
Firmware update:	Via ProAccess SPACE software.
LED lamps:	Multi colour led to indicate access authorisation.

TECHNICAL DRAWING:



ID TECHNOLOGIES:

MIFARE:*	•
BLE Smart:	•
NFC:	•
Legic:**	—
	•
Picopass:	—
i-Button:	—

* MIFARE® (DESFire EV1, Plus, Ultralight C, FlexSpace, Classic - ISO/IEC 14443).
** Legic Prime and Legic Advant

TECHNOLOGY PLATFORMS:

SALTO SPACE:

Smile - Selfprogrammable	—
ROM:	—
SVN data-on-card:	•
SALTO RFnet:	—
SALTO BLUEnet:	—

SALTO KS:

SALTO KS:	•

SALTO SALLIS:

SALLIS:	—

FINISHES:

Black:	•
White:	•

ELECTRICAL CHARACTERISTICS:

Operations conditions:

	Min	Max	Unit
Temperature:	-30	70	ºC
Humidity:	35	85	%

Power consumption:

	Min	Max	Unit
Reader	-	195	mA

Operating voltage:

	Min	Max	Unit
Reader	6	16	V

RF characteristics:

	Min	Cen	Unit
RFID frequency:		13,56	MHz
BLE frequency:	2,4	2,445	GHz

Cable type and distances:

	Reader
UTP Cat5e 2 pairs AWG24	80m
UTP Cat5e 4 pairs AWG24 + SP224861/SP224895	245m
Twisted pairs AWG18	365m

//DATASHEET

XS4 2.0 CONTROLLER

Cutting-edge design + Amazing technology:

The SALTO XS4 2.0 Controller incorporates the cutting edge design standard of the XS4 2.0 product range in this technological powerhouse.

XS4 2.0 CONTROLLER
CU42xx

SALTO
inspiredaccess

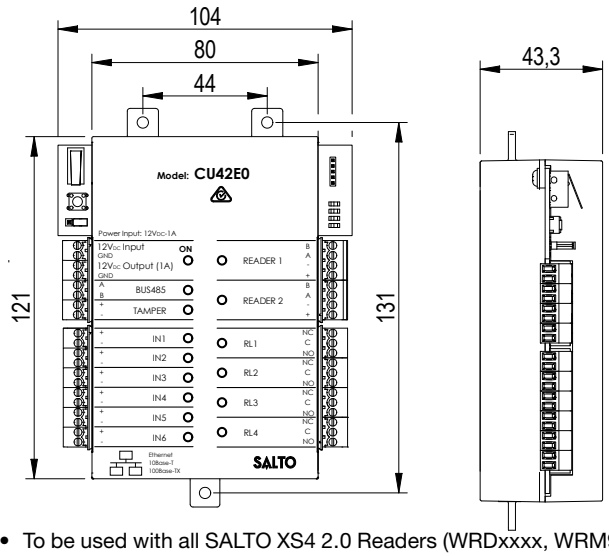
SALTO XS4 2.0
CONTROLLER ONLINE

SALTO's latest Control Unit makes it even easier to bring superior access control to your facility thanks to the ability to control and manage multiple doors through one Ethernet connection and one IP address.

This means that extending SALTO access control benefits to all those doors where a stand-alone electronic escutcheon cannot be fitted (electric strikes, magnets, barriers, elevators, etc.) is even easier and more cost-effective.

XS4 2.0 CONTROLLER: ONLINE

CU42E0



MAIN FEATURES:

- Online IP based door controller.
- Two wall reader connection that can be configured as 2 different doors or one door reader in and reader out locking.
- Antipass-back mode available by connecting 2 wall readers and set up as one door.
- 4 relay outputs.
- 6 inputs to connect to:
    - Door detector, request to exit switch (RTE), office switch.
- 2 different tampers:
    - one tamper input
    - and one tamper switch.
- Door monitoring and tamper monitoring via contacts input (intrusion alarm and door left opened alarm.

MECHANICAL ASPECTS:

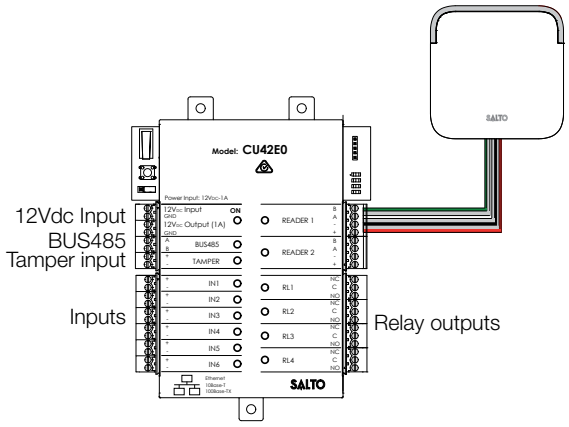
- Dimensions: 104mm x 131mm x 43,3mm (W x H x D).
- Weight: 0.5kg.

CERTIFICATIONS:

- CE comform
- UL 294 (pending)
- FCC certified

- To be used with all SALTO XS4 2.0 Readers (WRDxxxx, WRM9004[1] and WR9004FS[1] series).
- Virtual network capable through SALTO Virtual Network technology.
- All communications between the carrier and the wall reader are encrypted and secure[2].
- The maximum cable length between the door controller and the wall reader is up to 400 meters[3].
- Connection to the wall reader using 4 wire connection, twisted pair.
- Power consumption: 12V DC 400mA (without XS4 2.0 readers), supplied by an adaptor. POE version to be released.

INSTALLATION:



[1] Not available yet.
[2] Depending on the card and the RFID technology
[3] Depending on the cable.

SALTO inspiredaccess

SALTO XS4 2.0
CONTROLLER ONLINE WITH HOUSING

SALTO's latest Control Unit makes it even easier to bring superior access control to your facility thanks to the ability to control and manage multiple doors through one Ethernet connection and one IP address.

This means that extending SALTO access control benefits to all those doors where a stand-alone electronic escutcheon cannot be fitted (electric strikes, magnets, barriers, elevators, etc.) is even easier and more cost-effective.

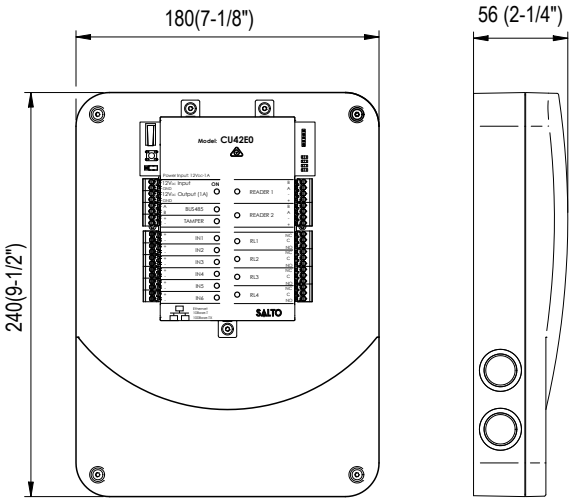
With the new XS4 2.0 Controller Online with Housing it is easier to install and it enhanced the aesthetic and sturdiness.

XS4 2.0 CONTROLLER: ONLINE WITH HOUSING

CU42E0x

CU42E0T

CU42E0G



MAIN FEATURES:

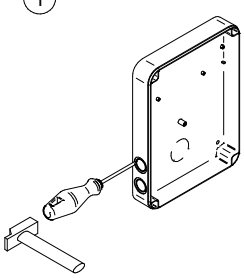
- Online IP based door controller.
- Two wall reader connection that can be configured as 2 different doors or one door reader in and reader out locking.
- Antipass-back mode available by connecting 2 wall readers and set up as one door.
- 4 relay outputs.
- 6 inputs to connect to:
  - Door detector, request to exit switch (RTE), office switch.
- 2 different tampers:
  - one tamper input
  - and one tamper switch.
- Door monitoring and tamper monitoring via contacts input (intrusion alarm and door left opened alarm.
- To be used with all SALTO XS4 2.0 Readers (WRDxxxx, WRM9004[1] and WR9004FS[1] series).
- Virtual network capable through SALTO Virtual Network technology.
- All communications between the carrier and the wall reader are encrypted and secure[2].
- The maximum cable length between the door controller and the wall reader is up to 400 meters[3].
- Connection to the wall reader using 4 wire connection, twisted pair.
- Power consumption: 12V DC 400mA (without XS4 2.0 readers), supplied by an adaptor. POE version to be released.
- 2 different Housing finishes translucent or grey opac.
- 8 pre-punched holes to fit the wiring.
- Screws and caps included.

MECHANICAL ASPECTS:
- Dimensions: 180mm x 240mm x 56mm (W x H x D).
- Weight: 0.7kg.

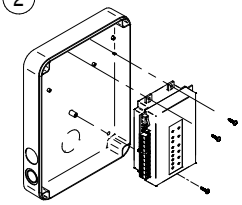
CERTIFICATIONS:
- CE comform
- UL 294 (pending)
- FCC certified

INSTALLATION:

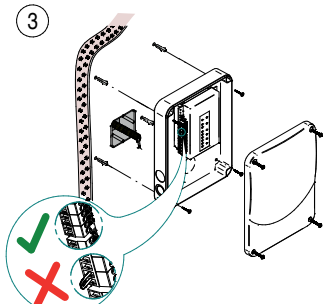
1



2

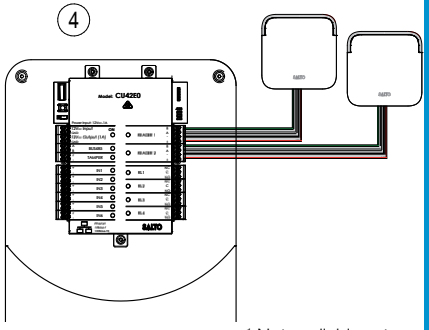


3



Do not use the jumper on tamper input

4



[1] Not available yet.
[2] Depending on the card and the RFID technology
[3] Depending on the cable.

SALTO inspiredaccess

XS4 2.0 CONTROLLER - ONLINE DOOR CONTROLLER SETUP:

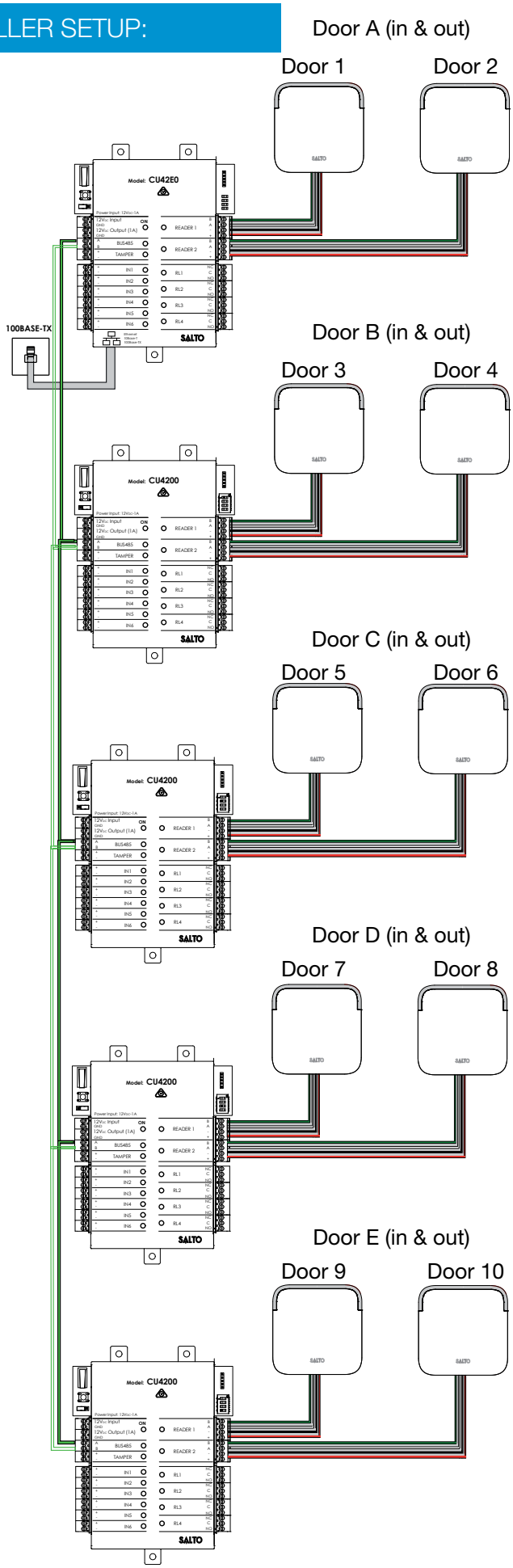
ONLINE CONTROLLER (CU42E0):

- Connection with the server via Ethernet 100BASE-TX or 10Base-T.
- Requires one IP address.
- Initialization via Ethernet online connection.
- Set up through SALTO ProAccess SPACE software.
- Set up:
  - As One door (reader in & reader out).
  - Two doors (reader one - door one, reader two - door two).

  Supports up to 4 auxiliar controllers (CU42000).
- One IP address needed to control up to 10 doors.

ONLINE AUXILIAR CONTROLLER (CU4200):

- Connection with the online controller (CU42E0) via BUS485.
- Do not requires IP address.
- Initialization via Ethernet online connection.
- Set up through SALTO ProAccess SPACE software.
- Set up:
  - As One door (reader in & reader out).
  - Two doors (reader one - door one, reader two - door two).



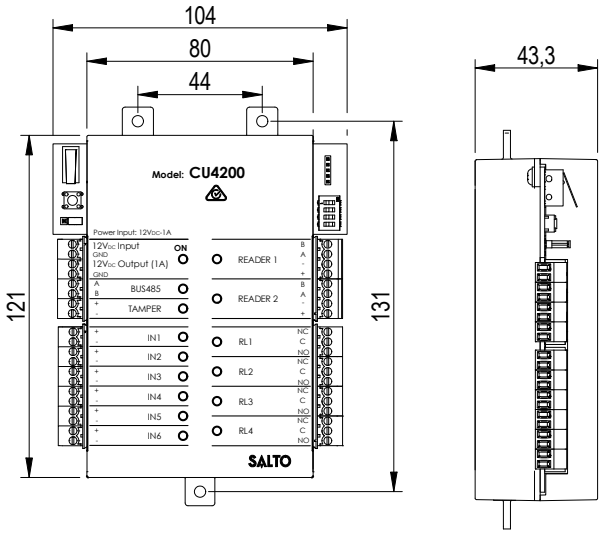
SALTO XS4 2.0
AUXILIAR OR OFFLINE CONTROLLER

SALTO's latest Control Unit makes it even easier to bring superior access control to your facility thanks to the ability to control and manage multiple doors through one Ethernet connection and one IP address.

The New SALTO XS4 2.0 Controller CU4200 is an auxiliar controller that do not requires an IP address and can be set up as an auxiliar controller connected to an XS4 online controller (CU42E0) or can work as offline controller reducing the costs of installation keeping all the advantages of the SALTO Data-on-card technology.

XS4 2.0 CONTROLLER: AUXILIAR OR OFFLINE

CU4200



MAIN FEATURES:

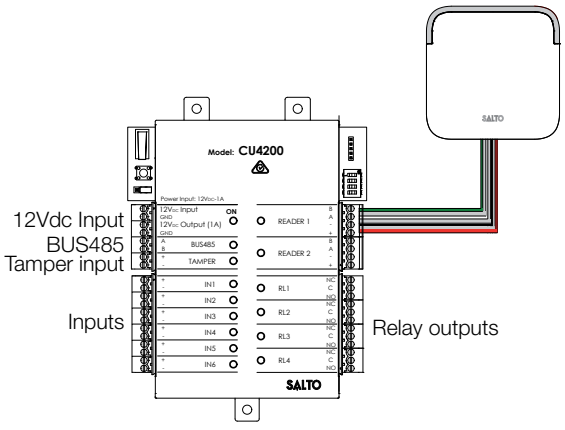
- Two wall reader connection that can be configured as 2 different doors[1], or one door reader-in and reader-out locking if set up as offline and programmed via PPD.
- Antipass-back mode available by connecting 2 wall readers and set up as one door.
- 4 relay outputs.
- 6 inputs to connect to:
  - Door detector, request to exit switch (RTE), office switch.
- 2 different tampers:
  - One tamper input,
  - and one tamper switch.
- Door monitoring and tamper monitoring via contacts input (intrusion alarm and door left opened alarm)[2].

MECHANICAL ASPECTS:
- Dimensions: 104mm x 131mm x 43,3mm (W x H x D).
- Weight: 0.5kg.

CERTIFICATIONS:
- CE comform
- UL 294 (pending)
- FCC certified

- To be used with all SALTO XS4 2.0 Readers (WRDxxxx, WRM9004[3] and WR9004FS[3] series).
- Virtual network capable through SALTO Virtual Network technology.
- All communications between the carrier and the wall reader are encrypted and secure[4].
- The maximum cable length between the door controller and the wall reader is up to 400 meters[5].
- Connection to the wall reader using 4 wire connection, twisted pair.
- Power consumption: 12V DC 400mA (without XS4 2.0 readers), supplied by an adaptor.

INSTALLATION:



[1] If the controller is set up as an auxiliar controller and conneted to a CU42E0 by BUS485
[2] If connected to an online CU42E0or via audit trail if offline.
[3] Not available yet.
[5] Depending on the card and the RFID technology
[5] Depending on the cable.

SALTO inspiredaccess

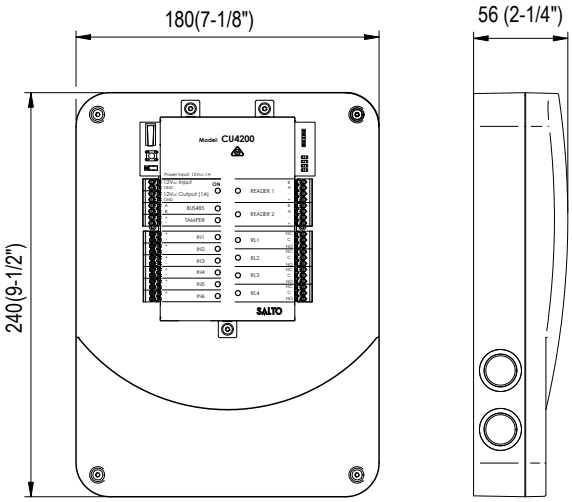
SALTO XS4 2.0
AUXILIAR OR OFFLINE CONTROLLER WITH HOUSING

SALTO's latest Control Unit makes it even easier to bring superior access control to your facility thanks to the ability to control and manage multiple doors through one Ethernet connection and one IP address.
The New SALTO XS4 2.0 Controller CU4200 is an auxiliar controller that do not requires an IP address and can be set up as an auxiliar controller connected to an XS4 online controller (CU42E0) or can work as offline controller reducing the costs of installation keeping all the advantages of the SALTO Data-on-card technology.

With the new XS4 2.0 Auxiliar Controller with Housing it is easier to install and it enhanced the aesthetic and sturdiness.

XS4 2.0 CONTROLLER: AUXILIAR OR OFFLINE WITH HOUSING

CU4200x



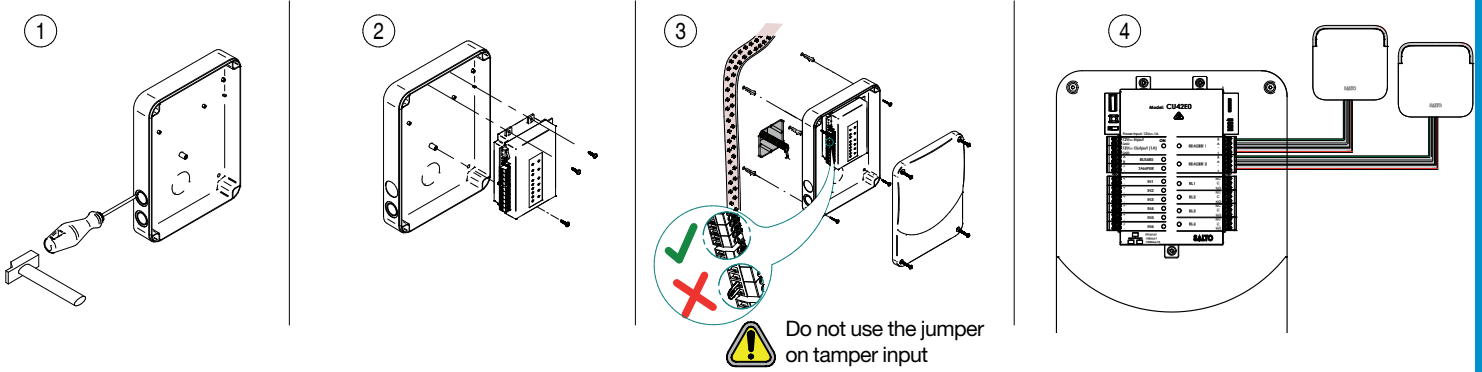
MAIN FEATURES:

- Two wall reader connection that can be configured as 2 different doors[1], or one door reader-in and reader-out locking if set up as offline and programmed via PPD.
- Antipass-back mode available by connecting 2 wall readers and set up as one door.
- 4 relay outputs.
- 6 inputs to connect to:
  - Door detector, request to exit switch (RTE), office switch.
- 2 different tampers:
  - One tamper input,
  - and one tamper switch.
- Door monitoring and tamper monitoring via contacts input (intrusion alarm and door left opened alarm)[2].
- To be used with all SALTO XS4 2.0 Readers (WRDxxxx, WRM9004[3] and WR9004FS[3] series).
- Virtual network capable through SALTO Virtual Network technology.
- All communications between the carrier and the wall reader are encrypted and secure[4].
- The maximum cable length between the door controller and the wall reader is up to 400 meters[5].
- Connection to the wall reader using 4 wire connection, twisted pair.
- Power consumption: 12V DC 400mA (without XS4 2.0 readers), supplied by an adaptor.
- 2 different Housing finishes translucent or grey opac.
- 8 pre-punched holes to fit the wiring.
- Screws and caps included.

MECHANICAL ASPECTS:
- Dimensions: 180mm x 240mm x 56mm (W x H x D).
- Weight: 0.7kg.

CERTIFICATIONS:
- CE comform
- UL 294 (pending)
- FCC certified

INSTALLATION:

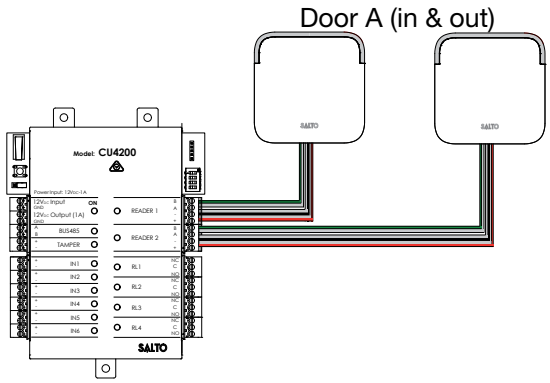


SALTO inspiredaccess

XS4 2.0 CONTROLLER - AUXILIAR OR OFFLINE DOOR CONTROLLER SETUP:

OFFLINE AUXILIAR CONTROLLER (CU4200):

- No online connection.
- Do not requires IP address.
- Initialization via PPD connection with the 3 pin cables directely to the controller or via PPD contactless through the wall reader.
- Set up through SALTO ProAccess SPACE software.
- Set up: as one door (reader in & reader out).
- Access plan update via SALTO Virtual Network capabilities. user access plan and blacklist (list of users card cancelled) is transmited via the Data-on-card technology.



ACCESS CONTROL FEATURES:

	R&W SVN
Maximum number of users per door	4,000,000
Maximum number of doors per system	64,000
Maximum events on controller audit	5,000
Time zones	256
Automatic changes tables in system	1,024
Calendars in system	256
Access levels in system	unlimited
Zones in system	1,024
Management software	ProAccess SPACE

SALTO VIRTUAL NETWORK CAPABILITIES

- Add or delete access privileges at will to the ID carriers.
- The ability to validate the expiry date of key cards on any SVN Online wall reader.
- Add security through additional authenticated validation procedures including pin codes as well the ability to blacklist cards from the system.
- On card audit-trailing to track staff or visitor movement.
- Lock specific battery power data is registered on any card using the lock - staff or visitor - and transferredback to the PC control software via any update reader just by using the system.
- Expiracy date can be extended if network connection is lost.

AVAILABLE OPENING MODES:

- **STANDARD:** Locked at all times.
- **AUTOMATIC CHANGES:** Any opening mode can be performed through logical set up of the controller.

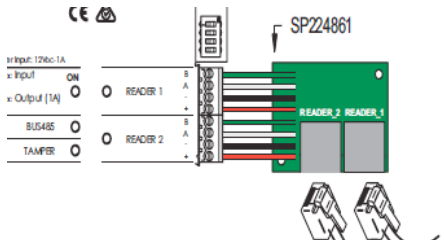
ONLINE FEATURES FOR ONLINE CONTROLLERS

REAL-TIME ACCESS CONTROL CHANGES:

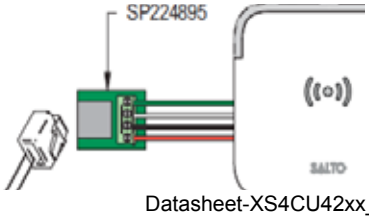
- Live monitoring of user entry and exit through the door controller.
- Live audit trail build up on the software.
- Door monitoring status for forced door and door left open alarm.
- Remote door opening from software.
- Door lock out or lock open emergency setting from software.
- The IP door controller can be included in roll call set up used, for example for user location monitoring parking controls etc
- Works as Online hub up to Online Energy Saving Devices (pending).
- Conected to standard Ethernet network.
- Works off-line if the network connection is lost.
- Communications betwwen the SALTO Service /online controller and auxiliary controller is secured and encrypted by AES 128 encryption.
- Invalidates deleted cards.

ACCESSORIES:

Model SP224861
Connecting circuit RJ45 cable adaptor for CU42E0 or CU4200.



Model SP224895
Connecting circuit adaptor for RJ45 cable for WRDBxxx series.



LifeSafetyPower®

FLEXPOWER FPO75-B100C8D8E2-3SL1

SIX DOOR SALTO UNIFIED POWER SYSTEM

75W / 12 & 24VDC / Fits three Salto Modules

8 Lock / 8 Auxiliary Outputs

SALTO inspiredaccess

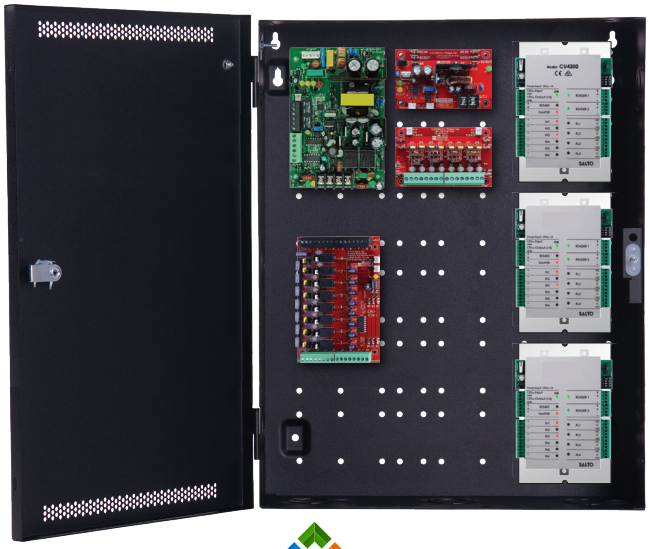
Overview

SALTO Unified Power Systems combine FlexPower® power modules alongside Salto CU42E0, CU4200, or CU4EB8 Modules in one compact and secure UL Listed solution.

This unit is a 75W 12V and 24V DC dual voltage access power system.

The C8 lock control module provides eight access control inputs capable of voltage or dry contact activation, and eight fused outputs programmable for failsafe / failsecure operation at either 12 or 24 VDC and controlled by the integrated fire alarm interface circuit on the FPO. One D8 module provides eight fused outputs and each output is configurable for 12 or 24VDC operation.

SALTO access enclosures are painted steel with three removable controller backplates and include lock, two (2) keys and tamper switch.



FLEXPOWER UNIFIED POWER SOLUTIONS

System Features

- **FPO offline power supply**
  - *120 or 230 VAC input*
  - *12 and 24 VDC outputs*
  - *On board Fire Alarm Interface*
  - *Continuous and resettable DC*
- **Distributed output module**
  - *Eight auxiliary - fused at 3A each*
  - *Eight lock control - fused at 3A each*
- **Expansion options**
  - *Increased power, multiple voltages*
  - *Additional distribution outputs*
  - *Network monitoring and reporting*
- **Lifetime Warranty**

Enclosure Features

- **Labor saving design**
  - *Pre-wired power section*
  - *Pre-punched knockouts*
  - *Preinstalled brackets hold three SALTO modules*
  - *Flexible backplate mounting locations*
  - *Access panels mount on threaded studs - no drilling required*
- **Additional benefits**
  - *Wire management room*
  - *4.5" enclosure depth fits battery set*
  - *Tamper switch, lock, dual key set standard*
  - *Mounting hardware for access boards included*

Ordering	Description
FPO75-B100C8D8E2-3SL1	75W (12V & 24V) 8 lock / 8 aux outputs, (3) Modules

c UL us CE RoHS compliant

Specifications

Input Power	Input 120/230 VAC 50/60 Hz | 83 Watts (0.70A) Overload and short circuit protection Over temperature protection Polarized AC power supply disconnect
Output Power	2A@12V and 2A@24V DC, 75W maximum combined output power Outputs: Continuous (DC1) Resettable (DC2) 8 controlled outputs, fused at 3A each 8 auxiliary outputs, fused at 3A each 120 mV output voltage ripple System Efficiency: 83% | System BTU Rating: 33 BTU/Hr
Battery Charging	Independent built-in 1A charger for sealed lead acid or gel type batteries Microprocessor dual rate charging of 24 V battery sets Automatic switchover to standby battery when AC fails Zero delay when switching over to battery backup
Supervision	AC Fail (form "C" contacts) System fail (form "C" contacts) may be triggered by low/no battery, short to earth ground and power supply failure
Visual Indicators	AC input, DC1 and DC2 output System fault | AC fault | Short to earth ground | Reverse battery polarity Fire Alarm Input activated B100: DC input / output and fault C8: DC output and fault D8: DC output
Regulatory Compliance **Mercury/LSP** **Joint Listing**	UL294, UL603, UL1076, ULC S318, ULC S319 CSA C22.2 #107.1, CSA 22.2 #60950 CSFM / FCC Part 15, Subpart B CE
Enclosure Dimensions	Size: 20.00H x 16.00W x 4.50D in. (50.00 x 40.00 x 11.50 cm) | Weight: 18 lbs
Access Panel Mounting	Pre-installed brackets for three (3) SALTO modules - CU42E0, CU4200, CU4EB8

E2 SALTO Mounting Guide

SALTO	Module per bracket	Brackets per Enclosure	Total Modules
CU42E0	1	3	3
CU4200	1	3	3
CU4EB8	1	3	3

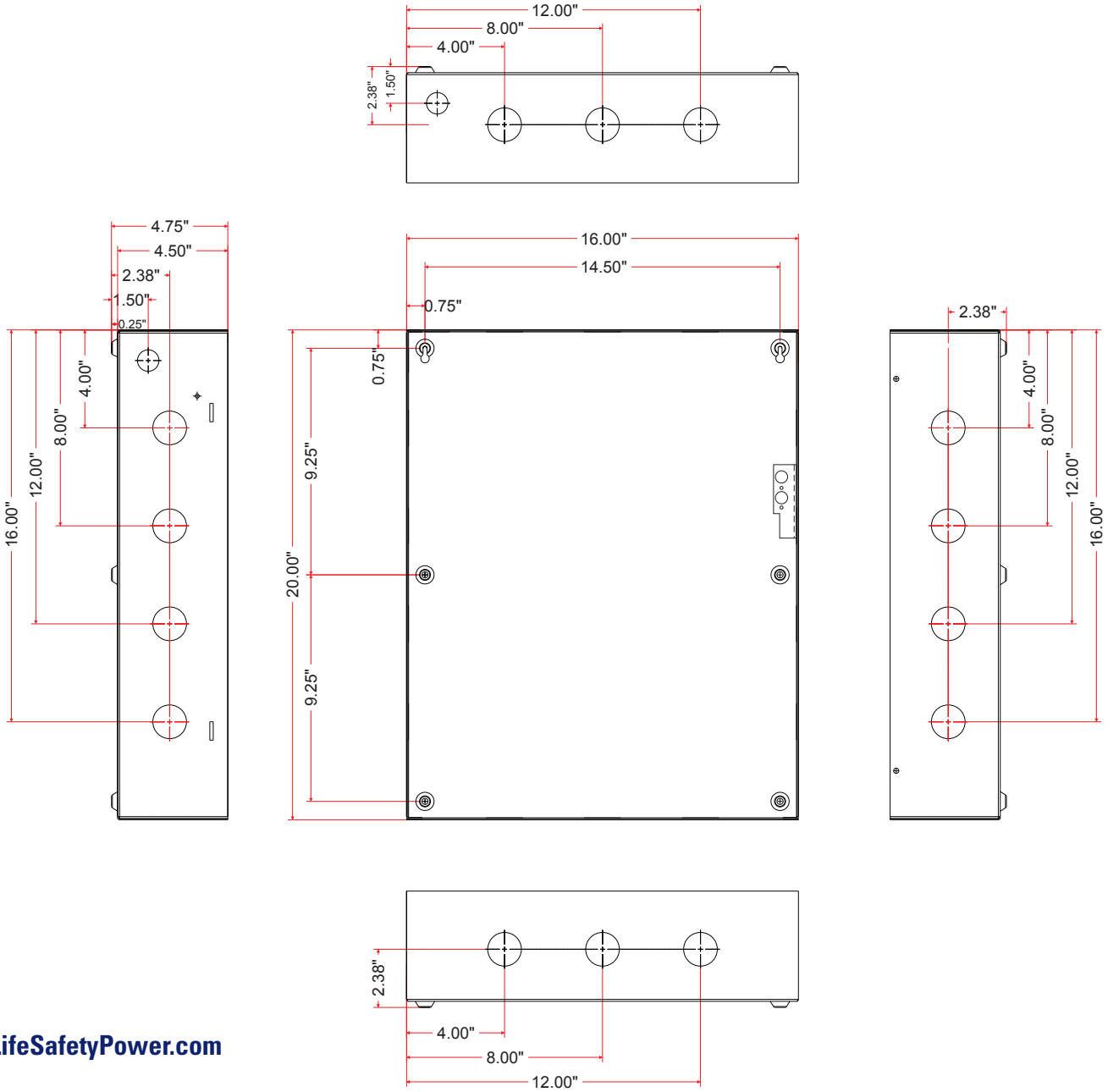
bracket
mounts (1) controller

Enclosure Features

- **Custom SALTO Backplate**
  - *LSP power modules pre-wired*
  - *Three brackets - mount three (3) SALTO controllers*
- **Mechanical**
  - *4.5" cabinet depth*
  - *Removable door with "fast disconnect" ground strap*
  - *Multiple knockouts all four sides*
  - *Network module mounting holes for field upgrade*

Enclosure Dimensions (H x W x D)

20.00” x 16.00” x 4.50” (35 x 31 x 11.4 cm)



LifeSafetyPower.com

(888) 577-2898
info1@lifesafetypower.com

Specifications subject to change without notice.

P01-1044A 10/19

LifeSafety Power
899 E Park Avenue
Libertyville, IL 60048 USA

//DATASHEET

XS4 MINI - ANSI |
Cutting-edge design + Amazing technology:

Stylish design is a SALTO trademark and with the XS4 Mini, we raise the bar on this already high standard thanks to the XS4 Mini's small, discreet size combined with a modern, clean LED aesthetic.

The Mini's smart compactness simplifies installation in virtually any kind of door, complementing any type of atmosphere.

XS4 MINI - ANSI
Ci2x0

SALTO
inspiredaccess

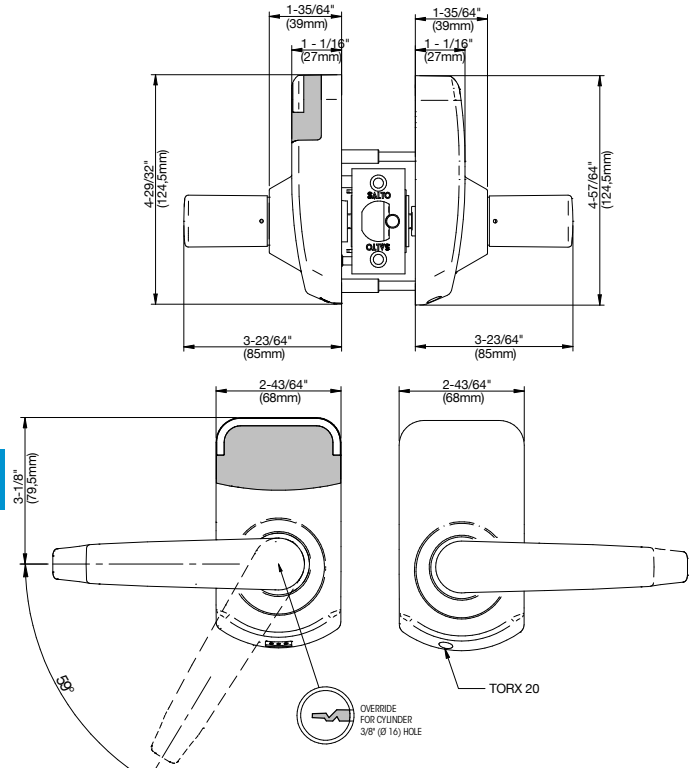
SALTO XS4
MINI DOORLOCK
FOR ANSI CYLINDRICAL
WITH STANDARD DOOR HOLES DISTANCE (2-3/4")

-

The XS4 Mini ANSI's door and preparation is prepared through ANSI A 115.2 through bolted installation.

XS4 MINI: STANDARD

MINI - ANSI CI2X0



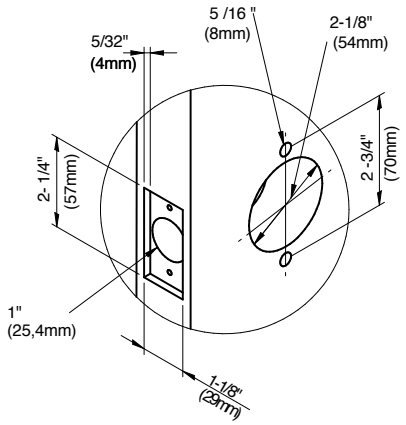
MAIN FEATURES:

- Fully integrated with the SALTO XS4 platform.
- Virtual network capable through SALTO Virtual Network technology.
- Choice of ID technologies: Mifare, DESFire , Mifare Ultralight C.
- NFC compatible.
- All communications between the credential and the XS4 Mini Electronic lock are encrypted and secure.
- Optical signalling through LED. Dual colour green/red to indicate access authorisation. Acoustic signal optional.
- Available in 2 different finishes: White and Black.
- Battery operated (3 x LR03 AA).
- Optional concealed fixing screw for greater security and improved aesthetics.
- Emergency opening by means of NFC portable programming device (PPD).
- For indoor use.
- ANSI/BHMA A156.25 Grade 1 compliant for heavy commercial, institutional and industrial use or indoor use.*

MECHANICAL ASPECTS:

- Dimensions: 124.5mm x 68mm x 27mm (4-57/64" x 2-43/64" x 1-1/16").
- Handle turning angle: 59°.
- Door thickness compatible: 32mm to 120mm (1-3/8" to 4-3/4").
- Distance from the handle to the door: 85 mm (3-23/64").
- Handle clutch mechanism and key override option.
- Inside always allows free egress (anti panic in combination with lock).
- Inside mechanism made of zinc alloy and reader polycarbonate covered
- Override for cylinder: 3/8" (Ø 16) hole.
- High security through advanced hardened high resistance anti-drill plates to protect the clutch mechanism.
- ADA (Americans with Disabilities Act) compliant (depending on the type of handle).

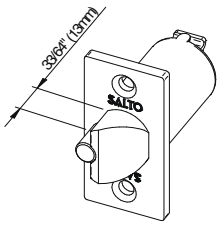
DOOR PREPARATION:



CYLINDRICAL LATCH:

Needs to be used only with SALTO's cylindrical latch, compatible with the Ci2x0 series.

LATCH MODEL:

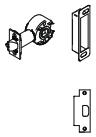


STANDARD

ACCESSORIES AND PARTS INCLUDED:

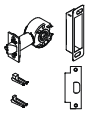
PARTS INCLUDED:

Cylindrical Lock
Dustbox
ANSI strike



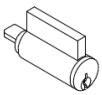
ACCESSORIES FOR KEY OVERRIDE:

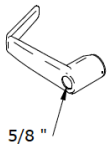
Cylindrical Lock
Dustbox
ANSI strike
Spacers for cylinder



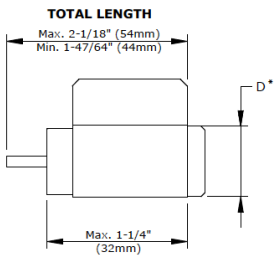
Cylinder not included

CYLINDER COMPATIBILITY:

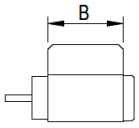
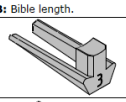
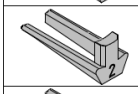
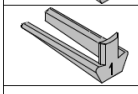




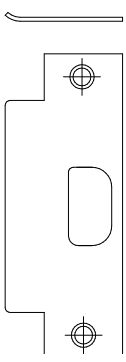
OVERALL DIMENSIONS



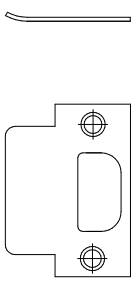
(D) FOR LEVERs WITH 5/8" (16mm) HOLE .
(*) IF NECESSARY USE A RING.

Cylinder	B (5 pins)	B (5 or 6 pins)
 **B:** Bible length.	Less than 1" (55/64" to 63/64") (21,8mm to 25mm).	For 1" (25,4mm).
Adapter 	(7/8" to 29/32") (22,2mm to 23mm). Standard cylinder 7/8" (22,2mm).	
	(15/16" to 31/32") (23,8mm to 24,6mm). Standard cylinder 61/64" (24,2mm).	
		(1" to 1-1/32") (25,4mm to 26,2mm). Standard cylinder 61/64" (24,2mm).
WITHOUT		(1-1/16" to 1-3/32") (26,8mm to 27,7mm).

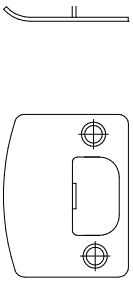
STRIKES:



A - strike (standard)
4-7/8" x 1-1/4"



T - strike
2-3/4" x 1-1/8"



L - strike
2-1/4" x 1-3/4"

SALTO
inspiredaccess

MAIN ELECTRONIC FEATURES:

- User on card audit trailing capability via the SALTO Virtual Network (SVN).
- Contactless versions compatible with ISO 14443A, ISO 14443B and ISO 15693 (Vicinity) and covering a wide range of mainstream RFID brands such as DESFire, DESFire EV1, Mifare, Mifare plus, Ultralight C, allowing multi-application with third party systems using one card.
- Non volatile memory which allows events to be saved and the XS4 Mini's date and time kept temporarily in the memory even if power fails.
- Low battery power indication monitored through the SALTO Virtual Network (SVN) as low battery status information is written onto carriers and passed to the software. Also readings can be taken at the lock and passed to the software via contactless NFC PPD connection.
- Firmware upgrade through contactless NFC PPD.

AVAILABLE LOCKING MODES:

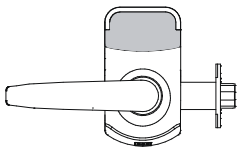
- **STANDARD:** Locked at all times.
- **OFFICE:** Free passage ability.
- **TIMED OFFICE:** Free passage with automatic locking.
- **AUTOMATIC OPENING:** 8 pairs of "hands free" timed lock and unlocks per day with holidays.
- **AUTOMATIC OPENING + OFFICE.**
- **TOGGLE:** Present card to lock, present card to unlock.
- **TIME TOGGLE:** present card to lock, present card to unlock. depending on schedules.
- **AUTOMATIC CHANGES.**

READER FINISHES:

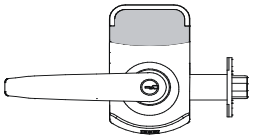
WHITE

BLACK

MODELS:



CLUTCH ONLY



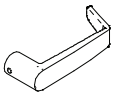
CLUTCH + KEY OVERRIDE

LOCK AND HANDLE FINISHES:

CS - Satin Chrome	CP - Polished Chrome	PM - Satin Brass (PVD finish)	PP - Polished Brass (PVD finish)	NE - Satin Chrome Black	BC - Biocote (Satin Chrome)
BHMA682 US26D	BHMA629 US26	BHMA732 US4	BHMA729 US3	BHMA685	

TYPES OF HANDLES:

R



N (ADA compliant)

G (ADA compliant)*

*In progress or pending

SALTO inspiredaccess

ACCESS CONTROL FEATURES:

	ROM	SVN (R&W)
Maximum number of users per door	1,000	4,000,000
Maximum number of doors per system	16,000	65,000
Maximum events on lock audit	2,275	2,275
Timezones	30	256
Timeperiods	20	1,024
Calendars in system	42	256
User groups	unlimited	unlimited
Zones in System	unlimited	unlimited
Management software	ProAccess ROM	ProAccess SPACE

ID TECHNOLOGIES: Range of RFID credentials available

- **MIFARE:** Mifare, Mifare plus, Ultralight C, DESfire, DESfire EV1 and Vicinity cards.
- **NFC:** SALTO XS4 MINI contactless range is compatible with NFC (Near Field Communication) technology which allows NFC-enabled cell phones to act as contactless data carriers to open and control SALTO access controlled doors.

Contactless RFID Key Cards

Contactless RFID Fobs

Contactless RFID Silicone Bracelet

Contactless RFID Fobs Bracelet

MIFARE:

Mifare RFID contactless technology reads & writes information to contactless smart cards (RFID) compatible with ISO 14.443A, ISO 14.443B and ISO 15.693 standards, such as Mifare, Mifare plus, DESFire, DESFireEV1 technologies. They also allow for updating of the carriers via SALTO Virtual Net (SVN) technology.

- Fully integrated with the SALTO XS4 platform.
- 13.56MHz contactless RFID identification.
- ISO 14.443A - Mifare, DESFire compatible.
- ISO 15.693 - Tag it, Icode, Flex Space (SKIDATA) compatible.
- Near Field Communication (NFC) compatible.
- Key card available: 1Kbyte, 4Kbytes and 8 Kbytes depending on technology.
- Key shape available: ISO 7810 cards, fobs, bracelets, stickers, watches…
- Reusable key cards.
- SALTO Virtual Network (SVN) compatible*.
- RFID technology permits contactless exchange of information between the card and the reader*.
- High security encrypted Proximity cards.
- Multi-application with other systems using the same card with different sectors.
- Customized issuing card through the SALTO Authorization Media software (SAM).
- Waterproof cards which can be customized.
- Upgradable: ROM, R&W systems available using the same hardware.

MOBILE KEY SOLUTIONS:

MOBILE SVN / NFC:
With mSVN (Mobile SALTO Virtual Network) it´s now possible to update cards remotely. All an end-user needs is an NFC-enabled smartphone to update their DESFire EV1 credential using SALTOs' JustIN mSVN App, thereby increasing the flexibility of an installation's security.

MAIN FEATURES:

- **XS4 COMPATIBILITY:** XS4 RFID escutcheon range.
- **SMARTPHONE:** Android minimum version: 2.3.3
- **SYSTEM REQUIREMENTS:** SALTO ProAccess SPACE.
- **SMART KEY COMPATIBILITY:** DESFire EV1 (AES – 3DES encryption) (SALTO SAM Card required)
- **BLACK LIST** dissemination that increases security without the need to wire or visit doors.

MOBILE GUEST KEY / BLUETOOTH:
SALTO Bluetooth mobile key (JustIN Key app developed by SALTO) communicates securely via the Cloud and enables a user to receive their door key online, anytime and anywhere.

MAIN FEATURES:

- **XS4 COMPATIBILITY:** XS4 RFID escutcheon range.
- **SSL:** Secure Socket Layer.
- **AES 128 BIT** encryption opening procedures.
- **SMARTPHONE Compatibility:** iOS and Android devices.
- **SYSTEM REQUIREMENTS:** SALTO ProAccess SPACE.

TECHNICAL DATA:

CURRENT REQUIRED:

Batteries needed
- 3 alkaline LR03 AA 1,5V.

Number of openings:
- Contactless versions: Up to 50,000 openings.

ENVIRONMENTAL CONDITIONS:
- 0º / 50º. (32ºF to 122ºF)

CERTIFICATIONS:

Fire:
- Fire resistant UL 30 minutes
- Fire resistant UL 3 hours *

Mechanical:
- ANSI/BHMA A156.25 Grade 1 compliant for heavy commercial, institutional and industrial use. *

SALTO ACCESS CONTROL PLATFORM FEATURES:

SALTO Systems's unique new networked escutcheons and cylinders can be used for a huge range of access control applications. It's the first RFID system that can be upgraded at any time.

You choose the level of security control you need. From a simple self-programmable system that needs no computer to manage it, through a highly capable mid-range ROM system, and up to the high performance data on card technology SALTO Virtual Network (SVN) system that allows you to control all the doors in an entire building or group of buildings from a single PC.

- Completely integrated into the SALTO Systems platform.
- Enables users to have stand-alone electronic cylinders, stand-alone electronic locks, stand-alone electronic glass door locks, emergency exit devices, locker locks and IP based online readers, all in the same system with SALTO Virtual Network capabilities, making it possible to update user card access plans easily.
- Stand-alone escutcheons can be upgraded to wireless system.
- Battery-powered.
- Easy to install, use and maintain.

*In progress or pending

DATASHEET

GATEWAYx3C by SALTO

The advanced SALTO online wireless solution is the next step in battery operated access control. SALTO's Wireless solution brings real-time two-way encrypted communication between our wireless locks and the operator.

www.saltosystems.com

TECHNICAL SPECIFICATIONS:
GATEWAYx3C - WIRELESS SALTO BLUEnet

SALTO
inspiredaccess

TECHNICAL DATA:

Housing dimensions (H x W x D):	120 x 160 x 34 mm
Weight:	195 g
Cover material:	ABS V0 plastic
IP class:	Not suitable for outdoor use
Certifications:	CE, FCC/IC, RCM, SRRC

ELECTRONIC FEATURES:

Power:	PoE IEEE802.3af, 12V power adapter
Tamper switch:	Built in tamper microswitch
DHCP / Static IP:	DHCP by default (recommended)
Firmware update:	Via ProAccess SPACE though Ethernet connection
LED lamps:	Multi colour led to notify the status of the device

TECHNOLOGY PLATFORMS:

SALTO SPACE:

Smile - Selfprogrammable	—
ROM:	—
SVN data-on-card:	•
SALTO RFnet:	• External SALTO RFnet Node connectivity
SALTO BLUEnet:	•

~~SALTO KS:~~

SALTO KS:	—

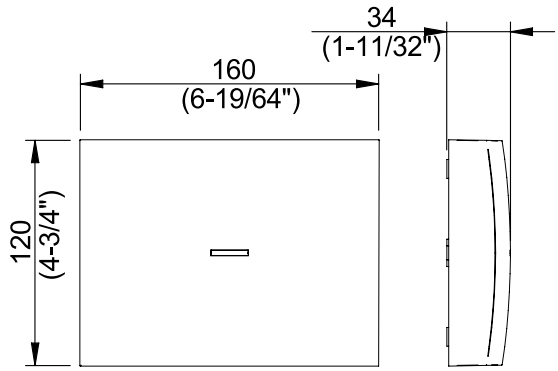
SALTO SALLIS:

SALLIS:	—

FINISHES:

Black:	•
White:	•

TECHNICAL DRAWING:



ELECTRICAL CHARACTERISTICS:

Operations conditions:

	Min	Typ	Max	Unit
Temperature:	0	25	60	ºC
Humidity:	35	-	85	%

Cable requirements:

Ethernet	UTP CAT5e
Node Connection (AB)	Generic twisted pair wire Note1
Node Connection (Vdd)	24 AWG

BLUEnet Characteristics (if internal node installed):

Frequency range:	2400-2483,5 Mhz
RF standard:	Bluetooth Low Energy
Indoor radio range:	10/15m
Max output power:	8dBm

PoE (IEEE 802.3af):

		Unit
Class:	2	
MaxPower:	5	W
Ethernet Standard:	10 BASE-T/100BASE- TX	

Auxiliary power supply:

	Min	Typ	Max	Unit
InputVoltage Note2	10	12	15	v
Current consumption:	75 Note3	-	500 Note4	mA

SALTO RFnet characteristics (if external node installed via BUS 485):

Frequency range:	2400-2483 Mhz
RF standard:	IEEE 802.15.4
Indoor radio range:	10/15m
Max output power:	5dBm

Note 1: 1x2x24AWG or UTP CAT5e recommended
Note 2: Use provided AC-DC power supply
Note 3: No external/internal node connected
Note 4: 6 external node connected

DATASHEET

RFNODE3 by SALTO

The advanced SALTO online wireless solution is the next step in battery operated access control. SALTO's Wireless solution brings real-time two-way encrypted communication between our wireless locks and the operator.

www.saltosystems.com

TECHNICAL SPECIFICATIONS:
RFNODE3 - WIRELESS SALTO BLUEnet

SALTO
inspiredaccess

TECHNICAL DATA:

Housing dimensions (H x W x D):	83 x 83 x 20 mm
Weight:	118 g
Cover material:	ABS V0 plastic
IP class:	Not suitable for outdoor use
Certifications:	CE, FCC/IC, RCM, SRRC

ELECTRONIC FEATURES:

Power:	12V through a compatible SALTO Gateway
Firmware update:	Via ProAccess SPACE though Ethernet connection
LED lamps:	Blue signalling led
Number of BLUEnet locks:	Max 16
GATEWAY compatibility:	GATEWAYx3C GATEWAYx2C

TECHNOLOGY PLATFORMS:

SALTO SPACE:

Smile - Selfprogrammable	—
ROM:	—
SVN data-on-card:	•
SALTO RFnet:	—
SALTO BLUEnet:	•

SALTO KS:

SALTO KS:	—

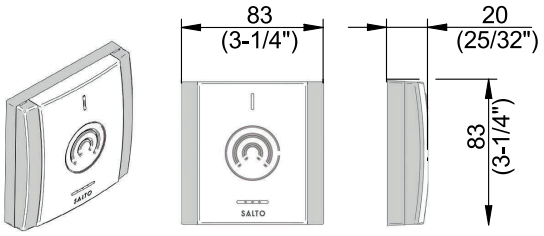
SALTO SALLIS:

SALLIS:	—

FINISHES:

Black:	—
White:	• White cream

TECHNICAL DRAWING:



ELECTRICAL CHARACTERISTICS:

Operations conditions:

	Min	Typ	Max	Unit
Temperature:	-20	25	70	ºC
Humidity:	35	-	85	%

Cable requirements:

RS485 Connection (AB)	Generic twisted pair wire Note1
Power Connection (Vdd)	24 AWG

BLUEnet Characteristics:

Frequency range:	2400-2483,5 Mhz
RF standard:	Bluetooth Low Energy
Indoor radio range:	10/15m
Max output power:	8dBm

Power Supply for BLUEnet:

	Min	Typ	Max	Unit
Input Voltage	7	12	28	v
Current consumption:	-	-	75 Note2	mA

Note 1: 1x2x24AWG or UTP CAT5e recommended.
Note 2: Power supply must be calculated taking into account SALTO Gateway and Nodes current consumption.

SALTO inspiredaccess