

Manufacturing Innovation Insider Newsletter

A Healthcare Crisis...in Door Access

Door access isn't just a vital issue for patients, residents, and visitors, but also staff

More than any other industry, healthcare demands easy door access and the reasons go beyond compliance with the Americans with Disabilities Act (ADA).

Whether in hospitals, rehabilitation or senior living facilities, doors must open to admit those needing entrance yet stay shut to incidental foot traffic. This preserves privacy and isolates the infirm from sources of infection. It tends to rule out simple sensors and floor mats, which can indiscriminately open when triggered in hallways, corridors, and other public spaces.

Yet the door opening mechanisms at typical health-related facilities can be less than adequate for those with mobility, strength, balance, or flexibility concerns.

“Healthcare facilities tend to have heavy fire doors designed to isolate areas,” says Jeanette Peter, a CRNA at a level I trauma center in Southern California. “These can require significant upper body strength to open. Even when automatic push plates are added, the placement of these can be difficult to access for those with mobility, balance, or flexibility issues.”

When healthcare providers repeatedly open doors that require awkward body mechanics, they're also at risk of straining or injuring themselves. This is particularly true when they're moving patients or heavy equipment such as beds or carts, which can make opening doors more difficult.

“Wheeling a patient down the hall on a heavy bed and leaning over the bed to open the door takes a toll,” says Peter. “When I hurt my right hand, I had to do everything left handed. I've stopped opening doors with my hands and try to use my hips whenever possible.”

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access for anybody

For residents of senior living facilities, challenging door access can quickly rob them of independence as strength, mobility, balance, and flexibility decline with age.

Complying with the ADA

Ever since the Americans with Disabilities Act (ADA), automatic door OEMs, service companies and facilities managers have striven to comply with the regulation while maximizing function and architectural appeal. But traditional efforts to satisfy ADA code for automatic doors, which require an intentional or “knowing act” switch to be mounted no higher than

48” from the finished floor, have been less than optimum.

Though high/low door switches have been commonly implemented to improve access, using them can still be difficult for anyone with impaired mobility such as those with arthritis/joint problems, using walkers, or the approximately 10% of wheelchair users who lack sufficient use of their limbs. In these cases, the switch height or angle of approach may require uncomfortable bending or contortion. Even for the non-disabled, high/low switches or other traditional approaches can be less than satisfactory especially when hands are full.

What’s been missing in the automatic door market was a switch that provides true universal access for those with any level of mobility, while providing the design flexibility to efficiently fulfill any new installation or retrofit project. A next generation switch has risen to the challenge.

True Universal Access

To better accommodate door access, John Schmidt wanted something better than traditional high/low switches.

“No matter where you place the high/low switches, they’re not going to fully accommodate everyone because each person, facility, and situation is different,” says Schmidt, who’s President of Automated Services And Products, an Oakland, Calif.-based automatic door sales and service company.

Schmidt turned to a next generation switch, designed to provide universal door access regardless of mobility, along with broad design flexibility. He turned to the INGRESS’R switch from Wikk Industries Inc., a Greendale, Wisconsin-based designer and manufacturer of automatic door equipment.

What makes the INGRESS’R switch unique is that it is 36” tall” by 6” wide with a fully actionable 2-1/2” center column. This means that the switch can be activated and the door opened from any height or angle of approach. When mounted 3” from the floor, as recommended by the wheelchair and scooter manufacturers Wikk consulted, the switch not only com-

plies U.S. ADA and Canadian guidelines but also gives unconditional door access to anyone whether they’re severely disabled or simply have their hands full.

“Those in wheelchairs can activate the INGRESS’R switch by touching it with a wheelchair footrest,” says Schmidt. “Others may bump it at any level with a cane, walker, gurney, hip, foot, elbow, or other body part. The ease of door opening it provides not only gives true universal access for the first time, but also can save doors from dings, chips, and scratches.”

Because the INGRESS’R switch can be activated by a simple touch anywhere along its 36” tall” by 6” wide surface, it provides simplified door access to the full range of healthcare stakeholders including patients, residents, visitors, and staff.

“What healthcare facilities have needed is easy door access that responds to good body mechanics,” says CRNA Jeanette Peter. “Door openings should be as stress-free as possible for patients, visitors, and staff since gaining access to certain areas, often repeatedly, is a matter of health and necessity.”

Maggie Villarreal, an administrator at an assisted living facility in Torrance, Calif. adds, “Preserving the independence and quality of life of residents as long as possible is the goal of assisted living facilities. To this end, giving unconditional door access to anyone, whether they’re mobility challenged or simply have their hands full, is vital.”

Flexible Design and Installation

Schmidt notes that the INGRESS’R switch’s sleek, tapered design also gives it a unique look. “Few people like the plain vanilla, off-the-shelf look of standard round or square switches,” says Schmidt. “Along with Wikk’s range of finishes, legends, engraving, custom capabilities, and their AccessAbility™ line, clients can get just what they want whether it’s an antique oil rub finish, a French legend for Montreal or Spanish, Chinese and Japanese for San Francisco.”

“On front entrances, the switch would give a strong first impression and could be decorated with a logo due to the large surface area,” says Marc

Singletary, an Application Engineer for Suwanee, Georgia-based Special Projects Group, Inc., an architectural entrance design and hardware supplier. He notes that the switch's tapered design has functional value as well.

For instance, not only is the switch's tapered surface safer than squared off edges if run into, but also they serve to deflect hard-hitting carts and conveyances. This enhances the switch's appearance and extends its usable life over edged switches, which tend to dent, chip, or ding more easily due to concentration of force along an edge. Its tapered profile and cap secured with security screws also deter tampering while offering weather resistance by eliminating the typical gaps where vandals pry or water collects.

Singletary appreciates the INGRESS'R switch's ability to mount on any wall or 6" x 6" bollard for aesthetic and practical reasons. "If needed you could mount the switch, an intercom and a card reader at 90 degrees to each other on a single bollard," he says. "That would cut clutter, expense, and simplify entry for employees requiring access to buildings after hours."

Because the switch offers flexible connection options including surface wiring with 1/2" conduit, wiring from the flush box, and wireless, it simplifies new and retrofit installations. Mounting access to both single and double gang flush electric boxes further enhances this capability.

"The surface wiring option speeds retrofits, the flush box option aids aesthetics and tamper resistance, while the wireless option makes cutting materials like terrazzo unnecessary," says Singletary. "While some push-buttons fit a single gang and some a double gang box, this accommodates both. That eliminates the time and expense of adapting to existing box conditions in retrofits. All in all, the switch is setting a new standard for automatic door accessibility and ease of installation."

"The INGRESS'R switch has filled a void in the market," adds Jason Sabotta, Service and Purchasing Manager for Tee Jay Service Company, a Batavia, Illinois-based automatic door service company. "The switch provides full, comfortable automatic door ac-

cess to anyone regardless of mobility along its entire 3' height. It installs easy, works well, and customers add it to other entrances once they try it out."

Wikk's INGRESS'R switch and all of the AccessAbility™ line of automatic door activation controls provide simple solutions to any installation or design requirement. Standard items are available for same day rush delivery, a key advantage for maintaining tight project schedules.

Wikk offers one of the broadest lines of switches in the industry with four distinct sizes, six shapes, twelve legends, and custom engraving, as well as electrical, key, pneumatic, and wireless switching. The switches are available in standard architectural finishes in Bronze and Stainless Steel, and switch accessories include surface boxes, wireless components, and premium quality bollard posts.

For more info, contact Wikk Industries, Inc. at: www.wikk.com; 877-421-9490 ext. 13 (phone); 877-421-3158 (fax); or write to P.O. Box 167, Greendale, Wisconsin 53129.

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