

Limit Switches



Photoelectric Sensors



Inductive Sensors



Connectivity



5.1 Limit Switches

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5.4 Connectivity

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For our complete product offering, see Volume 8—Sensing Solutions, CA08100010E,

Product Overview

Limit Switches Selection Guide



E47 Precision Switches



Compact Prewired Switches



E49 Mini Metal Switches



E50 Heavy-Duty Plug-in Switches



LS-Titan Miniature DIN Switches

Description	E47 Precision Switches	Compact Prewired Switches	E49 Mini Metal Switches	E50 Heavy-Duty Plug-in Switches	LS-Titan Miniature DIN Switches
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Overview	Specified when accurate repeatability, choice of operating forces and travel characteristics and tightly controlled action of cam or target in space restricted areas is of prime importance. Cost-effective and compact	Designed to be a versatile, slim device for hard-to-fit applications where sealing integrity is required; stackable ridge for ganged operations	Suitable for OEMs who require a small, cost-effective solution but cannot sacrifice durability and mechanical life as would be the case with a plastic IEC style switch	Versatile in design; high reliability; low maintenance costs with installation ease; best choice for heavy-duty limit switch applications; withstands physical and chemical abuse of harsh industrial environments	Eaton's LS-Titan limit switch line is a complete offering of safety position switches designed for worldwide application; economical insulated plastic or rugged metal enclosures and modular, plug-in operating heads and bodies make LS-Titan a flexible switching solution
Applications	Overhead, folding and elevator doors, sliding gates, automated guided vehicles and commercial instrumentation	Machine tool, food processing and packaging	Automatic vending machines, electronic assembly machines, elevators and lifts, injection molding, packaging	Punch presses, waste water treatment, machine tool, automotive, retrieval systems, industrial truck, car wash lines	Packaging, material handling, conveying, sorting and counting, positioning, and safety applications requiring positive opening contacts
Product features	Self-contained switches or with an enclosed cast housing for increased durability and conduit connection (1/2 in NPT) High current capacity for power load switching and motor handling capability Screw and solder terminations	Rugged aluminum alloy die cast housing Sealed construction with enclosure ratings of Type 4, 6 and 13 Prewired with 3M of 18 AWG, AWM 2517, 300V cable	Long life—rated for 10 million operations Pre-wired units with custom cable lengths available for high volume customers "Fingerproof" terminals protect against accidental shock	Modular operating heads, switch bodies and receptacles are interchangeable without field adjustment Order as complete assemblies or components for stocking and manufacturing flexibility 90 degree total travel, 5 degree pretravel characteristics are standard features	Modular, plug-in system (head and body components) Positive opening NC contacts for safety applications Wide variety of economical plastic and rugged metal versions available Operating heads can be rotated 90 degrees to suit specific direction of operation Unique electronic safety position switches (LSE models) provide analog (0–10 Vdc or 4–20 mA) outputs proportional to the actuator position and allow for easy configuration of a custom trip point Can be ordered as separate components (head and body) or as completely assembled switches
Contact ratings	NEMA A600, R300, AC-15, DC-13 15A/20A, 125 or 250 Vac	NEMA B300	5A at 250 Vac 5A at 30 Vdc	NEMA A600, R300 Lighted versions A150, R150 6A, 120 Vac; 10A continuous	AC-15, DC-13 6A at 240 Vac 3A at 24 Vdc 200 mA at 24 Vdc (LSE models)
Enclosure ratings	Enclosed—Type 1	Type 4, 6 and 13 IP67	IP65	Type 1, 3, 3S, 4, 4X, 6, 6P, 13 IP67	IP66, IP67
Construction	Basic—phenolic Enclosed—aluminum die cast	Aluminum alloy die cast	Zinc alloy	Zinc die cast	TBD
Approvals	UL® recognized CSA® certified	cULus	UL recognized	UL listed CSA certified IEC 947-5-1 TUV	Safety function by positive opening contacts per IEC/EN 60947-5-1 up to Category 4 per EN 954-1 TÜV-Rheinland certified for functional-safety (LSE models) CSA certified UL listed CE CCC

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