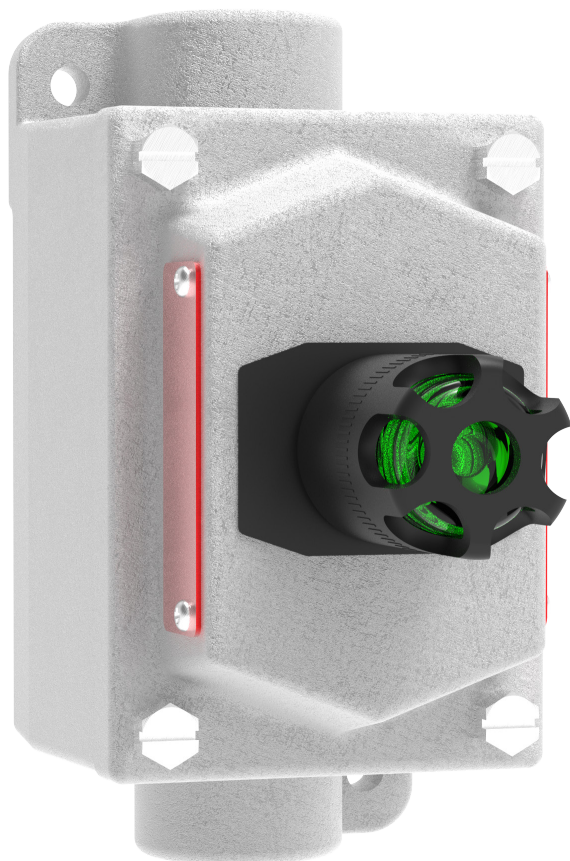


The next generation of hazardous area control stations and switches

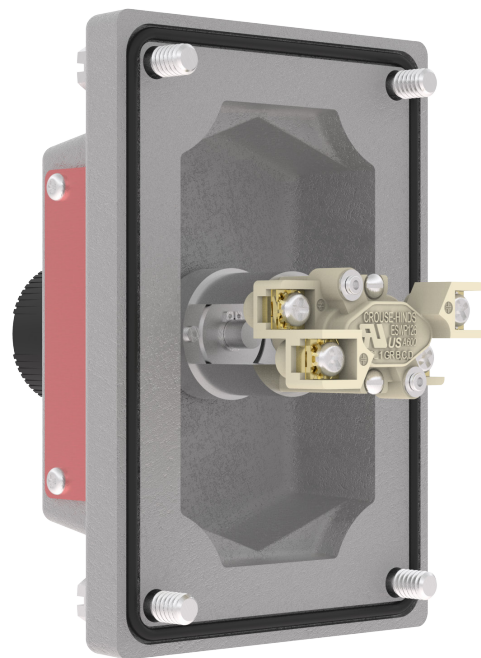
Eaton's innovative and factory sealed control station solutions safely and efficiently control power and protect circuits in industrial and hazardous area environments worldwide.

Features:



NEMA 4X gasket:

- Provides NEMA 4X^A protection against water ingress in the most demanding conditions



Captive cover screws:

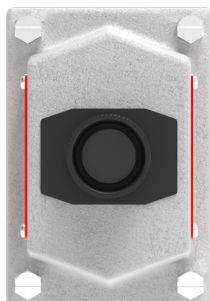
- Provide secure fastening while helping reduce costs associated with lost screws or damage

Extended temperature range:

- Extended temperature range of -40°C to +60°C standard for improved reliability in extreme environments

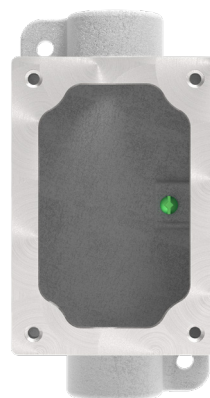
Retrofit design enables easy upgrade to NEMA 4X protection^A:

- Simply purchase a DSDX cover and device assembly and use with the existing installed aluminum back box



DSDX cover and device

+



Original aluminum back box

=

NEMA 4X

^A If existing back box is iron and is used with new X series cover, it is NEMA 4 rated. To achieve NEMA 4X rating, the back box and the cover must be aluminum. For questions, please contact your local sales rep or Eaton's customer service.

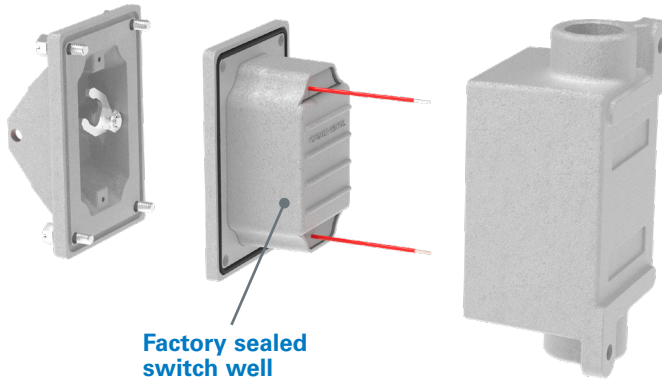
Benefits of factory sealed control stations and switches:

Reduce material costs

Reduce labor costs

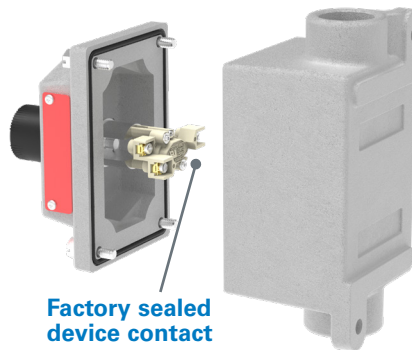
Improve safety

Switches



- EDS and EDSX factory sealed snap switches or manual motor starting switches do not need external sealing
- The switches are enclosed in a unique sealing well with double flanges, which mate with the cover and the body
- Small, compact enclosures have accurately ground wide flanges on body, cover and sealing well for flamtight joints
- Wiring pigtails are factory sealed from under the sealing well
- Reliable pouring of seals at the factory ensures safe sealing

Control stations



- Factory sealed EDS and EDSX pilot light, pushbutton and selector switch control stations do not need external sealing
- Device contacts are factory sealed in explosionproof ESWP contact blocks
- Small, compact enclosures have accurately ground wide flanges on both the body and cover for a flamtight joint

Material and labor savings of factory sealed control stations

Factory sealed devices eliminate the need for explosionproof conduit seals in most applications.

No need to install explosionproof conduit seal and sealing compound.

– Eliminates $\frac{3}{4}$ " EYS21 seal fitting, \$32.01, and Chico compound, \$21.99. Saves \$54.00.

– Eliminates 50 minutes installation time for Chico seal, saves \$100.

Satisfies requirements of NEC® Sections 501.5(A)(1), 501.6(A) and (B), and 505.16(B)(1) and (2).

**Material and labor
savings
of at least
\$154.00
per conduit entry**

DSD/DSDX cover and device sub-assemblies

Cl. I, Div. 1 & 2, Groups B, C, D
Cl. I, Zones 1 & 2
Cl. II, Div. 1, Groups E, F, G
Cl. III

Explosionproof
Dust-ignitionproof
Raintight
Wet Locations

4C

For use with EDSCM modular multi-gang device bodies and EDS/EDSC back boxes.

DSD/DSDX covers are available with a wide variety of devices and configurations, including manual motor starters, front operated pushbuttons, general use snap switches, side operated pushbuttons, selector switches and pilot lights.

DSD/DSDX sub-assemblies are factory sealed to prevent arcing of the enclosed device from causing ignition of a hazardous atmosphere external to the enclosure. Factory sealing eliminates the need for external seals, simplifying installation and helping reduce material and labor costs.

Applications:

DSD/DSDX cover and device sub-assemblies are for mounting combinations of control device equipment for use in:

- Industrial areas such as chemical plants, oil and gas refineries, paint and varnish manufacturing plants, gasoline bulk loading terminals, grain elevators, grain processing industries, coal processing or handling areas where atmospheres may contain hazardous gases or dusts, and arcing of enclosed devices must not ignite the surrounding atmosphere
- Conjunction with magnetic starters or contactors for remote control and monitoring motors
- Manual starting and stopping of small AC or DC motors
- Controlling and supplying energy to portable electrical devices, such as motor generator sets, compressors, conveyors, portable tools, etc.

Features:

DSD/DSDX cover and device sub-assemblies have:

- Device contacts for pilot light, pushbutton, and selector switch control stations are factory sealed; external sealing is not required, improving safety and reducing costs
- Factory sealing available for motor starting switch and snap switch sub-assemblies (*see ordering information tables for details*)
- Large captive screws for fastening cover to body (DSDX only)
- Retrofit design enables easy upgrade to NEMA 4X protection^A; simply purchase a DSDX cover and device assembly and use with the existing installed aluminum back box
- Lockout hole for padlock having 1/4" hasp is provided when used with covers for front lever and side type operation
- Lockout provisions on front operated pushbutton (marked "STOP" and "OFF") and all selector switch covers
- For covers with front lever and side type operating handles, threaded type shafts and bushings are used to ensure hazardous protection
- Accurately ground flange for flamtight joint when mated with ground flange on back box

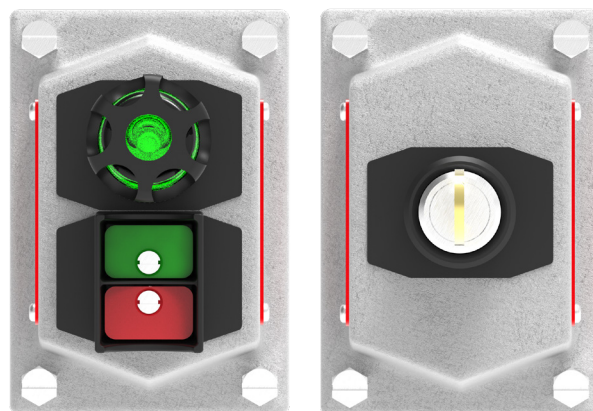
Standard materials:

- Covers – Feraloy iron alloy and copper-free aluminum
- Shafts and shaft bushings – stainless steel
- Handles, pushbuttons and guards – type 6/6 nylon
- Sealing enclosures – copper-free aluminum

Standard finishes:

- Feraloy iron alloy – electrogalvanized and aluminum acrylic paint
- Copper-free aluminum – natural

^A If existing back box is iron and is used with new X series cover, it is NEMA 4 rated. To achieve NEMA 4X rating, the back box and the cover must be aluminum. For questions, please contact your local sales rep or Eaton's customer service.



Certifications and compliances:

(When used with EDS/EDSC or EFS/EFSC back box):

DSD:

NEC:

- Class I, Division 1, Groups C, D
- Class I, Division 2, Groups B, C, D
- Class I, Zones 1 & 2, IIA
- Class I, Zone 2, IIB + H₂
- Class II, Division 1, Groups E, F, G
- Class III

UL standards:

- UL1203, UL121201, UL508

CSA standards:

- C22.2 Nos. 14, 25, 213-17

DSDX:

NEC:

- Class I, Division 2, Groups B, C, D
- Class I, Zone 2, IIA, IIB + H₂
- Class II, Division 1, Groups E, F, G
- Class III

UL standards:

- UL1203, UL121201, UL508

CSA standards:

- C22.2 Nos. 14, 25, 213-17

Environmental ratings:

Cover type	Back box material	NEMA rating	Temperature range
DSDX (aluminum)	Iron	NEMA 4	-40°C to +60°C
DSDX (aluminum)	Aluminum	NEMA 4X ^A	-40°C to +60°C
DSD (aluminum or iron)	Iron or aluminum	NEMA 3	-25°C to +40°C

Electrical ratings:

- Contact block – 10A at 600 VAC; 5A at 125 VDC
- Pilot lights – 120V (1.2W LED, 6W incandescent); 24V S300 option (0.6W LED, 1.7W incandescent)

DSD/DSDX cover and device sub-assemblies

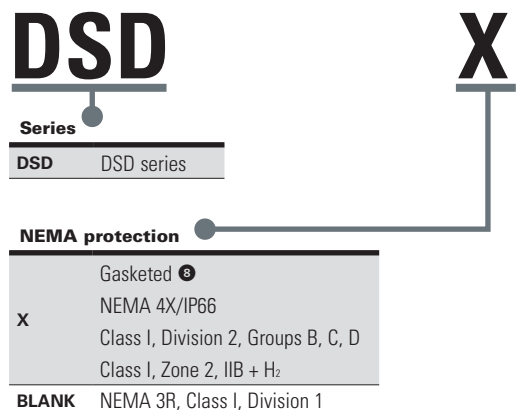
Cl. I, Div. 1 & 2, Groups B, C, D
Cl. I, Zones 1 & 2
Cl. II, Div. 1, Groups E, F, G
Cl. III

Explosionproof
Dust-ignitionproof
Raintight
Wet Locations

4C

Ordering information – part number example:

DSDX925 S634 SA



Single pushbutton



Combination pushbutton and double pushbutton



Single keyed selector switch



Combination pilot light and double pushbutton



Combination selector switch and pilot light

Catalog rules / notes:

- ① For use with 910-915 only; not applicable for 916 and 917.
- ② Default legend marking is START-STOP unless otherwise specified.
- ③ If legend for marking contains SP (STOP) or OF (OFF), suffix S153 is NOT required. Lockout will be added. (Lockout not available in double pushbutton and with S111).
- ④ S769 only available on a single pushbutton assembly or one button of a two button assembly.
- ⑤ XFMR option not available on DSD973 through DSD977.
- ⑥ C1B is default key housing. If S847 option is selected and no key housing has been selected, then the customer would get C1B by default.
- ⑦ 1-, 2- and 3-pole snap switches are marked ON-OFF; 3 and 4 way snap switches have blank stamping boxes; motor starting switches are marked START-STOP. No alternate markings are permitted.
- ⑧ "X" includes gasketing and o-rings on assembly to provide a Cl. I, Div. 2, Group B, C, D, Cl. II, Div. 1, Group E, F, G, NEMA 4X/IP66 corrosion-resistant rating for aluminum (suffix SA required). Valid only for front operated pushbuttons, front operated snap switches, selector switches, pilot lights, selector switch and pilot lights.

Single-gang cover assemblies (Step 1: select assembly)

Front operated motor starting switch covers and devices (NEMA 4X not avail.)

910	Front operated Allen-Bradley 1-pole switch, 1 HP, 115-230 VAC
911	Front operated Allen-Bradley 2-pole switch, 1 HP, 115-230 VAC
912	Front operated GE 1-pole switch, 1 HP, 115-230 VAC
913	Front operated GE 2-pole switch, 1 HP, 115-230 VAC
914	Front operated Westinghouse 1-pole switch, 1 HP, 115-230 VAC
915	Front operated Westinghouse 2-pole switch, 1 HP, 115-230 VAC
916	Front operated Square D 2-pole switch, 2 HP at 250 VAC (30A), 3 HP at 600 VAC (20A)
917	Front operated GE 3-pole switch, 7.5 HP at 250 VAC (30A), 15 HP at 600 VAC (20A)

Front operated pushbutton covers and devices

918	One button, one universal switch
919	One button, two universal switches
920	One button, two universal switches, one N.O., one N.C.
921	Two button, two universal switches
922	Two button, two universal switches, one N.O., one N.C. ②
962	Three button (one double and one single), single on bottom, lockout avail. only on single button
970	Momentary contact mushroom head (N111 style) and one button (breaks N.C.)

Front operated snap switch covers and devices

933	1-pole, 20A, 120/277 VAC
934	2-pole, 20A, 120/277 VAC
935	3-pole, 16A, 125V; 10A, 250 VAC (NEMA 4X not available)
936	3-way, 20A, 120/277 VAC
937	4-way, 20A, 120/277 VAC
939	1-pole, 30A, 120/277 VAC
940	2-pole, 30A, 120/277 VAC
941	3-way, 30A, 120/277 VAC
943	3-pole, 30A, 600 VAC

Front operated selector switch covers and devices

923	2-position, two circuit
924	2-position, four circuit
925	3-position, two circuit (N.O., open, N.C.)
926	3-position, four circuit (N.O., open, N.C.)
927	3-position, four circuit (A1 = N.C., N.O., N.O.; B1 = N.O., N.O., N.C.)

Pilot light covers and devices

947	Two pilot lights (not available with a transformer)
948	One pilot light

Combination pushbutton and pilot lights

958	One pilot light and one pushbutton station
961	Double pushbutton with pilot light (with a transformer - see table), lockout not available

Combination selector switches and pilot light covers and devices ⑤

973	One light and 2-position switch, two circuit
974	One light and 2-position switch, four circuit
975	One light and 3-position switch, two circuit (N.O., open, N.C.)
976	One light and 3-position switch, four circuit (N.O., open, N.C.)
977	One light and 3-position switch, four circuit (A1 = N.C., N.O., N.O.; B1 = N.O., N.O., N.C.)

DSD/DSDX cover and device sub-assemblies

Cl. I, Div. 1 & 2, Groups B, C, D
Cl. I, Zones 1 & 2
Cl. II, Div. 1, Groups E, F, G
Cl. III

Explosionproof
Dust-ignitionproof
Raintight
Wet Locations

4C

S634

SA

4C

Options for motor starting switches

Step 2: select heaters ¹

G2 - G42	GE heaters
P1 - P39	Allen Bradley heaters
W1 - W39	Westinghouse heaters
0	Without heater

Step 3: select factory sealed cover if needed ¹

S701	Factory sealing cover (motor control) for use with manual motor starters
------	--

Step 4: select material option

Step 5: select legend marking (see next page)

Options for front operated pushbuttons

Step 2: select operator function option

S111	Momentary stop, front operated, red mushroom head button (breaks N.C. contacts only)
S153	Lockout on front operated pushbutton (locks normally closed contacts in open position) ²
S769	Maintained contact, front operated, mushroom head button with lockout and guard (breaks N.C. contacts and maintains N.O. contacts) ²

Step 3: select material option

Step 4: select legend plate option

BLANK	Standard or no legend plate
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Step 5: select legend marking (see next page)

Options for pilot lights

Step 2: select color

J1	Red jewel
J3	Green jewel
J6	Amber jewel
J10	Clear jewel
J11	Blue jewel

Step 3: select lamp style

BLANK	Standard incandescent lamp
LED	LED lamp furnished in place of standard incandescent lamp

Step 4: select voltage ³

S300	24V lamp (AC and DC) (not available with XFMR)
T2	240/120 volt XFMR
T4	480/120 volt XFMR
T5	600/120 volt XFMR

Step 5: select material option

Step 6: select legend plate option

BLANK	Standard or no legend plate
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Step 7: select select legend marking (see next page)

Options for front operated snap switches

Step 2: select factory sealed cover if needed

S697	For factory sealing covers (for use with 20A and 30A front operated snap switches only; not available on DSD935) suffix required for "X" (gasketed, NEMA 4X ³ /IP66) config.
------	---

Step 3: select material option

Step 4: select legend marking (see next page)

Options for front operated selector switches

Step 2: select operator function options

S634	3-position selector switch with momentary contact clockwise operation, spring return to center, maintained contact counterclockwise operation
S635	3-position selector switch with momentary contact counterclockwise operation, spring return to center, maintained contact clockwise operation
S842	3-position selector switch with momentary contact left and right, spring return to center
S847	Key operated selector switch - must define position where key is removed from (limited to NEMA 4)

Step 3: select removable key location (only if S847 is selected)

K1	Selector switch key is removable from all positions
K2	Selector switch key is removable from left position for 2-position switches or from center position for 3-position switches
K3	Selector switch key is removable from right position for 2-position switches or from left position for 3-position switches
K4	Selector switch key is removable from right position for 3-position switches

Step 4: select key lock housing (only if S847 is selected)

C19B	Key lock housing C19B
C1B / BLANK	Key lock housing C1B ⁶
C2B	Key lock housing C2B
C3B	Key lock housing C3B
C4B	Key lock housing C4B
C5B	Key lock housing C5B
C6B-C18B	Key lock housing C6B-C18B
C20B-C152B	Key lock housing C20B-C152B

Step 5: select material option

Step 6: select legend plate option

BLANK	Standard or no legend plate
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Step 7: select legend marking (see next page)

Options for selector switches and pilot light devices

Step 2: select option from pilot light options

Step 3: select option from selector switches option

Step 4: select material option

Step 5: select legend marking (see next page)

Material and finish options

Select enclosure options

BLANK	Iron cover (Feraloy) with zinc and aluminum paint
SA	Aluminum cover - suffix required for "X" (gasketed, NEMA 4X ³ /IP66) configuration
S752	Exterior gray epoxy powder coat finish (not required for NEMA 4X corrosion resistance)

Legend marking options

See instructions and standard marking abbreviations on previous page and catalog rules/notes ² ³ ⁸

DSD/DSDX cover and device sub-assemblies

Cl. I, Div. 1 & 2, Groups B, C, D
Cl. I, Zones 1 & 2
Cl. II, Div. 1, Groups E, F, G
Cl. III

Explosionproof
Dust-ignitionproof
Raintight
Wet Locations

4C

Legend marking plates for pushbuttons, selector switches and pilot lights:

Marking req.	Suffix add	Standard pushbutton color	Actual marking on product
Acknowledge	AK	Black	ACK
Alarm	AM	Red	ALARM
Automatic	AU	Black	AUTO
Bypass	BP	Black	BYPASS
Call	CA	Black	CALL
Close	CL	Black	CLOSE
Down	DN	Black	DOWN
Emergency	EM	Red	EMER
EM-Stop	EM-SP	Red	EMER-STOP
Fast	FS	Green	FAST
Forward	FW	Black	FWD
Hand	HN	Black	HAND
High	HI	Black	HIGH
In	IN	Green	IN
Jog	JG	Black	JOG
Lighting On	LN	Green	LITG-ON
Local	LC	Black	LOCAL
Lower	LO	Black	LOWER
Maintain	MT	Black	MAINT
Manual	MN	Black	MANUAL

Marking req.	Suffix add	Standard pushbutton color	Actual marking on product
Normal	NR	Green	NORMAL
Off	OF	Black	OFF
On	ON	Green	ON
Open	OP	Green	OPEN
Out	OT	Black	OUT
Purge	PG	Black	PURGE
Raise	RA	Green	RAISE
Remote	RM	Black	REMOTE
Reset	RS	Black	RESET
Reverse	RV	Black	REV
Run	RN	Black	RUN
Safe	SF	Green	SAFE
Silence	SN	Black	SILENC
Slow	SL	Green	SLOW
Start	ST	Green	START
Stop	SP	Red	STOP
Test	TT	Black	TEST
Trip	TP	Black	TRIP
Up	UP	Green	UP

Note: Non-standard legend plate markings (not included in this table) can be accommodated by our Engineer To Order team. Non-standard markings must be included in catalog number exactly as desired on legend plates. There is a 10-character limit per marking.

Common DSD/DSDX catalog numbers:

Type	Description	Cat. #
Front operated pushbuttons	Two button, two universal switches, one N.O., one N.C. ②	DSDX922 SA
Front operated pushbuttons	One button, one universal switch	DSDX918 SA
Front operated pushbuttons	Two button, two universal switches	DSDX921 SA
Front operated pushbuttons	Momentary contact mushroom head (S111 style) and one button (breaks N.C.)	DSDX970 SA
Pilot lights	Two pilot lights (not available with a transformer)	DSDX947 J1 J3 SA
Pilot lights	One pilot light	DSDX948 J1 SA
Pushbuttons and pilot lights	One pilot light and one pushbutton station	DSDX958 J1 SA
Pushbuttons and pilot lights	Double pushbutton with pilot light (with a transformer - see table), lockout not available	DSDX961 J3 SA
Selector switches	3-position, two circuit (N.O., open, N.C.)	DSDX925 SA
Selector switches	3-position, four circuit (A1 = N.C., N.O., N.O.; B1 = N.O., N.O., N.C.)	DSDX927 SA
Selector switches	2-position, two circuit	DSDX923 SA
Snap switches	1-pole, 20 amp	DSDX933 S697 SA
Snap switches	2-pole, 20 amp	DSDX934 S697 SA
Snap switches	3-pole, 30 amp	DSDX943 S697 SA
Motor starter switch ⑥	Front operated Allen-Bradley 1-pole switch, 1 HP, 115-230 VAC	DSD910 0 S701 SA
Motor starter switch ⑥	Front operated Westinghouse 1-pole switch, 1 HP, 115-230 VAC	DSD914 0 S701 SA
Motor starter switch ⑥	Front operated Westinghouse 2-pole switch, 1 HP, 115-230 VAC	DSD915 0 S701 SA
Back boxes		Cat. # Dead end
Back box	1/2" single-gang back box	EDS171 SA
Back box	3/4" single-gang back box	EDS271 SA
Back box	1" single-gang back box	EDS371 SA
Back box	1/2" two-gang back box	EDS172 SA
Back box	3/4" two-gang back box	EDS272 SA
Back box	1" two-gang back box	EDS372 SA
		Cat. # Through feed
		EDSC171 SA
		EDSC271 SA
		EDSC371 SA
		EDSC172 SA
		EDSC272 SA
		EDSC372 SA

Catalog rules / notes:

② Default legend marking is START-STOP unless otherwise specified.

⑥ NEMA 4X option not available.