

Ark-Gard ENR value series dead front interlocked circuit breaking receptacles

Cl. I, Div. 1 & 2, Groups B^A, C, D
Cl. II, Div. 1 & 2, Groups F, G
Cl. III
NEMA 3, 7BCD, 9FG, 12

Explosionproof
Dust-ignitionproof
Raintight
Wet Locations

2P

Applications:

Ark-Gard ENR receptacles and ENP plugs are used:

- With portable electrical equipment, such as compressors, tools, lighting systems and similar devices
- In areas made hazardous by the presence of flammable vapors and gases or combustible dusts
- Wherever portable electrical equipment is likely to be transferred from hazardous to non-hazardous areas
- In damp and corrosive areas
- When power requirements do not exceed 20 amperes
- Where general purpose application is required

Features:

- Ark-Gard 2 receptacle incorporates three spring-loaded slide keys that prevent the receptacle face plate from being rotated until the ENP plug is fully inserted into the receptacle. To make the connection, the ENP plug is fully inserted, and the receptacle face moved inward by pushing the plug forward. The plug is then rotated, closing the circuit. As rotation begins, the plug becomes locked in the receptacle and cannot be accidentally disengaged. In making or breaking the circuit, any resulting electrical arc is confined in the factory sealed chamber.
- Factory sealed chamber encloses the potential arcing components between two explosionproof threaded joints; these threads are specially coated to guarantee freedom of movement, which ensures on-off action; no additional seals are required
- One-piece molded gasket seals cover plate and ENP plug when plug is inserted, providing full environmental protection at the receptacle face
- Top hinged cover design with 45° downward angle provides superior protection in damp, wet and dirty locations
- Field assembly is accomplished with standard tools
- Use standard EDS back boxes

Certifications and compliances:

NEC:

- Class I, Divisions 1 & 2, Groups B^A, C, D
- Class II, Divisions 1 & 2, Groups F, G
- Class III

ANSI/UL standard:

- UL1010

NEMA/EEMAC:

- NEMA/EEMAC 3, 7BCD, 9FG

CEC:

- Class I, Divisions 1 & 2, Groups B, C, D
- Class II, Divisions 1 & 2, Group G
- Class III

Standard materials:

- Receptacle housing and spring door – die cast copper-free aluminum
- Interior – Krydon fiberglass-reinforced polyester
- Contacts – receptacle blade: brass; receptacle switch: silver
- Receptacle cover hinge pin and spring – stainless steel
- Receptacle gasket – neoprene

Standard finishes:

- Copper-free aluminum – aluminum acrylic paint
- Brass – natural

Electrical ratings:

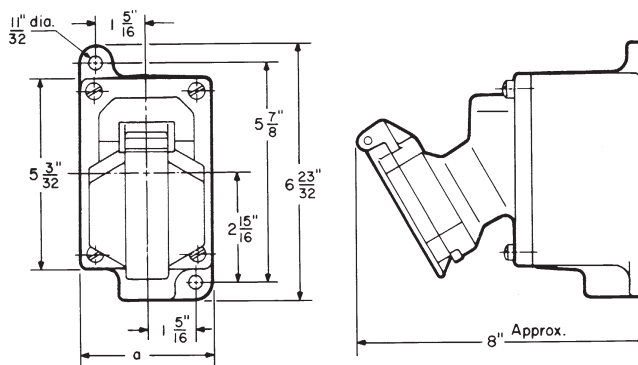
- 15 and 20 amperes; 125 VAC and 250 VAC, 50-400 Hz

Grounding:

- NEC Article 501 and CEC Section 18 require that metal frames or exposed non-current-carrying metal parts of portable devices used in hazardous locations be grounded through an extra conductor in the portable cord
- ENR receptacles and ENP plugs are provided with an extra grounding pole

CAUTION: To reduce the risk of ignition of hazardous atmospheres, do not use plugs or receptacles in Class II, Group F locations that contain electrically conductive dusts.

Dimensions (in inches):



a = 3 1/2 for single-gang
7 9/16 for two-gang

^A Receptacle units alone (i.e. ENR5201) are not suitable for Class I, Group B.

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Ordering information:



Rating	Description	Hub size	Cat. # Single-gang receptacle assembly [Ⓒ]	Cat. # Two-gang receptacle assembly [Ⓓ]	Cat. # Receptacle unit only [Ⓔ]	NEMA config.	Cat. # 15A plug [Ⓔ]	NEMA config.
15A, 125V	Dead end	1/2"	ENR11151	ENR12151	ENR5151		ENP5151	
		3/4"	ENR21151	ENR22151				
		1"	ENR31151	ENR32151				
	Through feed	1/2"	ENRC11151	ENRC12151		5-15R	ENP5151	5-15P
		3/4"	ENRC21151	ENRC22151				
		1"	ENRC31151	ENRC32151				
15A, 250V	Dead end	1/2"	ENR11152	ENR12152	ENR6152		ENP6152	
		3/4"	ENR21152	ENR22152				
		1"	ENR31152	ENR32152				
	Through feed	1/2"	ENRC11152	ENRC12152		6-15R	ENP6152	6-15P
		3/4"	ENRC21152	ENRC22152				
		1"	ENRC31152	ENRC32152				

Rating	Description	Hub size	Cat. # Single-gang receptacle assembly [Ⓒ]	Cat. # Two-gang receptacle assembly [Ⓓ]	Cat. # Receptacle unit only [Ⓔ]	NEMA config.	Cat. # 20A plug [Ⓔ]	NEMA config.
20A, 125V	Dead end	1/2"	ENR11201	ENR12201	ENR5201		ENP5201	
		3/4"	ENR21201	ENR22201				
		1"	ENR31201	ENR32201				
	Through feed	1/2"	ENRC11201	ENRC12201		5-20R	ENP5201	5-20P
		3/4"	ENRC21201	ENRC22201				
		1"	ENRC31201	ENRC32201				
20A, 250V	Dead end	1/2"	ENR11202	ENR12202	ENR6202		ENP6202	
		3/4"	ENR21202	ENR22202				
		1"	ENR31202	ENR32202				
	Through feed	1/2"	ENRC11202	ENRC12202		6-20R	ENP6202	6-20P
		3/4"	ENRC21202	ENRC22202				
		1"	ENRC31202	ENRC32202				

Note: 15A with copper-free aluminum EDS, EDSC back boxes. 20A with Feraloy® iron alloy EDS, EDSC back boxes.

[Ⓑ] Receptacle units alone (i.e. ENR5201) are not suitable for Class I, Group B.

[Ⓒ] Single-gang assemblies purchased with an EDS back box are suitable for Class I, Group B.

[Ⓓ] Two-gang assemblies purchased with an EDS back box are suitable for Class I, Groups C, D only. For Class I, Group B rating, add 'B' to catalog number. For example: ENR22201. Seals must be installed within 1 1/2" of each conduit opening.

[Ⓔ] ENP plugs use #12 or #14 AWG type S, SO, ST or STO cord with range of 0.540 - 0.635" diameter.

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

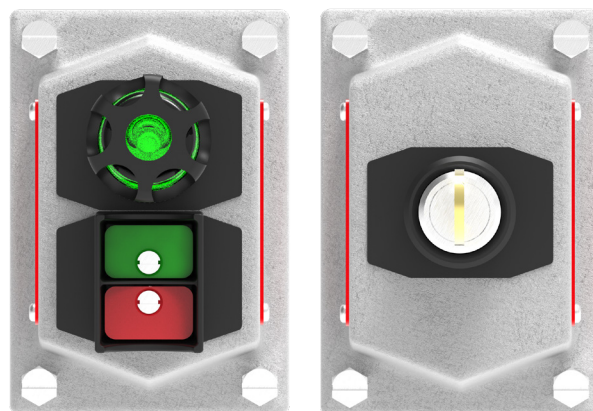
Standard materials:

- 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

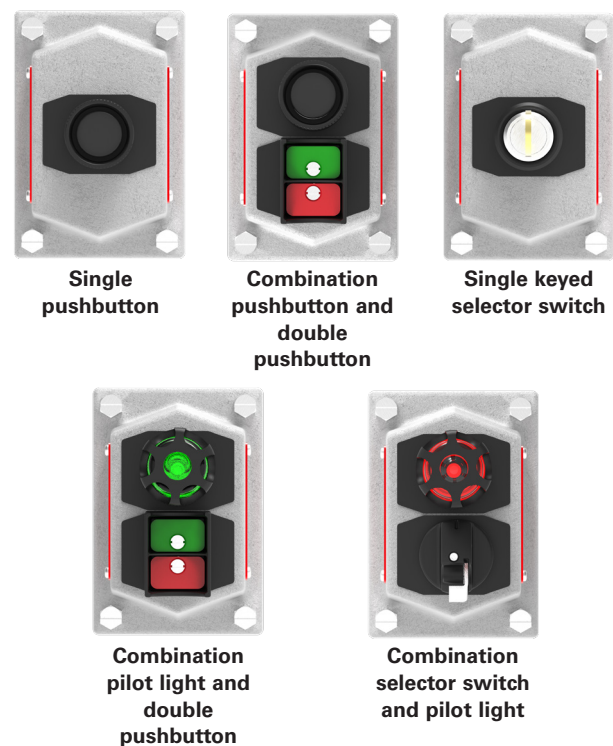
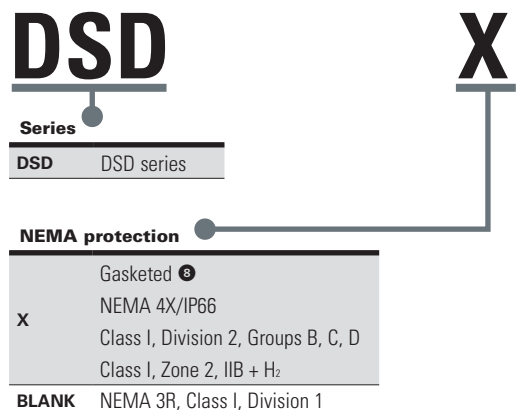
Cl. I, Div. 1 & 2, Groups B, C, D
Cl. I, Zones 1 & 2
Cl. II, Div. 1, Groups E, F, G
Cl. III

Explosionproof
Dust-ignitionproof
Raintight
Wet Locations

4C

Ordering information – part number example:

DSDX925 S634 SA



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

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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
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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.
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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

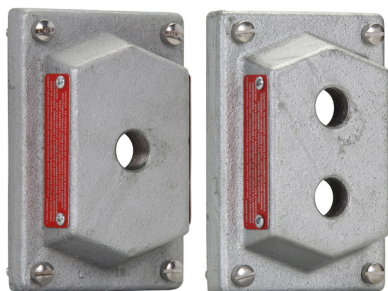
See instructions and standard marking abbreviations on previous page and catalog rules/notes ² ³ ⁸

FlexStation™ control station components

Ordering information (continued):

STEP 4 – SELECT COVER

Covers



Description	Cat. #
Blank cover with single hole (single-gang)	DS441
Blank cover with 2 holes (single-gang)	DS442
Blank cover with 3 holes (to be used with EFD(C)1491 SA, 2491 SA or 3491 SA back boxes)	DS443 SA
Replacement cover plug for unused device operator openings	DS:0206765

Options	Suffix
Aluminum body (mandatory suffix on DS443; must be included in catalog number)	SA
Exterior epoxy powder coat finish	S752
Interior and exterior epoxy powder coat finish (not available on 3-operator cover (DS443 SA))	S753

STEP 5 – SELECT BACK BOX

Back boxes – for use with DS441 & DS442 covers or with 1- and 2-gang DS/DSD covers



Back box arrangement	Hub size	Cat. # Dead end	Cat. # Through feed
Single-gang back box	1/2"	EDS171	EDSC171
Single-gang back box	3/4"	EDS271	EDSC271
Single-gang back box	1"	EDS371	EDSC371
Two-gang back box	1/2"	EDS172	EDSC172
Two-gang back box	3/4"	EDS272	EDSC272
Two-gang back box	1"	EDS372	EDSC372

Options	Suffix
Aluminum body	SA
Exterior epoxy powder coat finish	S752
Interior and exterior epoxy powder coat finish	S753

Back boxes – for use with DS443 SA cover or with 1½ gang DS511 (3-operator) covers



Back box arrangement	Hub size	Cat. # Dead end	Cat. # Through feed
1½-gang back box	1/2"	EFD1491 SA	EFDC1491 SA
1½-gang back box	3/4"	EFD2491 SA	EFDC2491 SA
1½-gang back box	1"	EFD3491 SA	EFDC3491 SA

Options	Suffix
Exterior epoxy powder coat finish	S752
Interior and exterior epoxy powder coat finish	S753

[Ⓕ] For Class I, Division 1, Group B or Zone 1 hydrogen applications, use the EFS(C) complete control station catalog numbers.