

# ConSig 8040 Series

CONTROL & SIGNALING STATIONS



CONTROLS

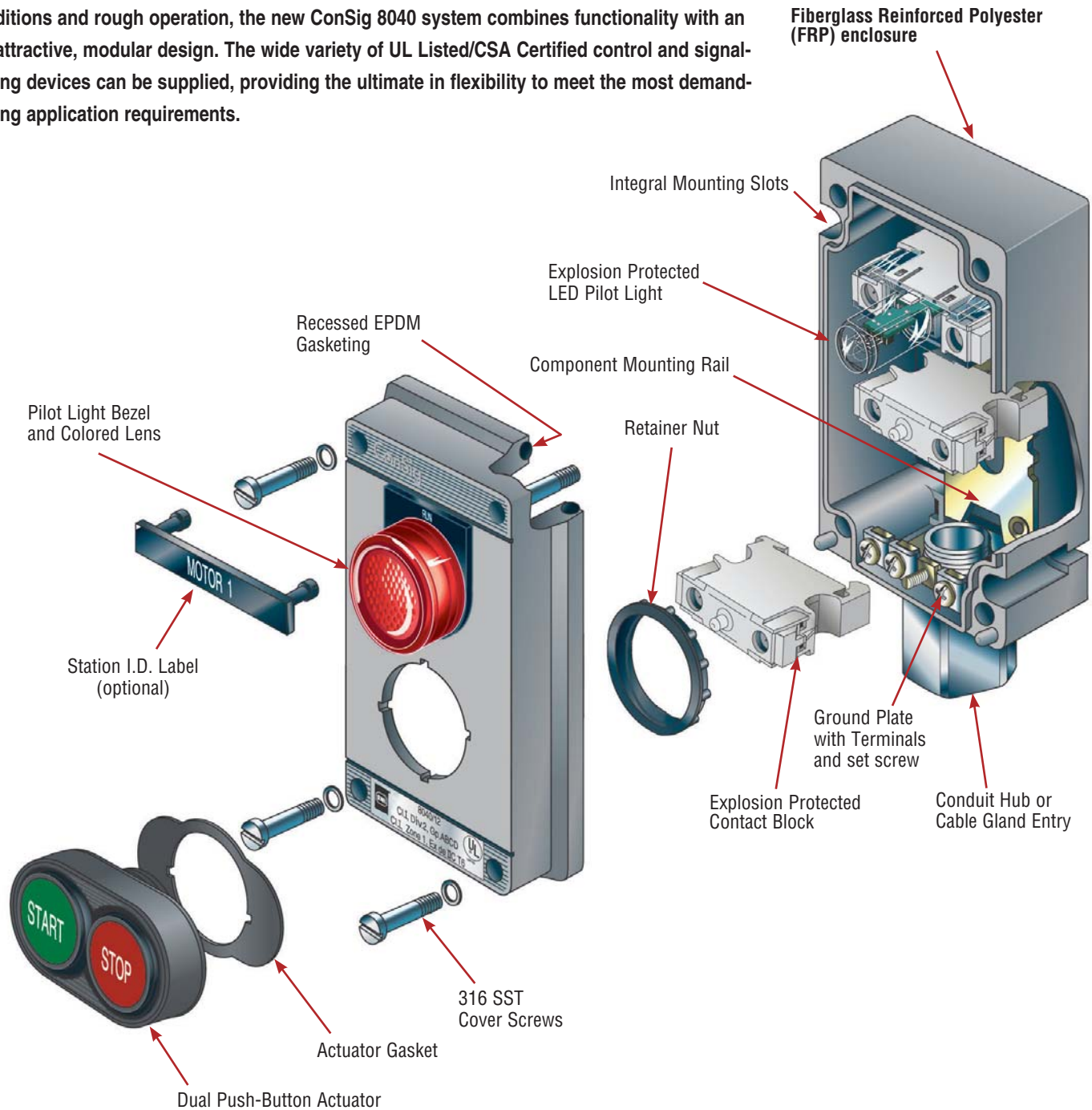
STAHL

## 8040 Features:

- Attractive space efficient design.
- A variety of enclosure sizes made of Fiberglass Reinforced Polyester (FRP).
- Snap-on mounting of individual components.
- High illumination LED pilot light from 12V to 254V, AC or DC with an operating life time over 100,000 hours.
- A variety of pushbuttons.
- Control switches.
- Illuminated pushbutton.
- Durable EPDM enclosure gaskets are concealed to protect from damage or premature aging by UV light and chemicals.
- Fluorsilicate gasket in standard pushbutton actuators is suitable for a wide temperature range.

# ConSig "PUTS YOU IN CONTROL"

R. STAHL is setting new standards for function, design and technology with the new ConSig 8040 Series of control and signaling stations. Designed for complex industrial conditions and rough operation, the new ConSig 8040 system combines functionality with an attractive, modular design. The wide variety of UL Listed/CSA Certified control and signaling devices can be supplied, providing the ultimate in flexibility to meet the most demanding application requirements.



The ConSig 8040 Series is a new generation of control and signaling stations utilizing explosion protected components with non-metallic enclosures for the ultimate flexibility, safety and durability in Hazardous (Classified) and Hostile (Corrosive) Locations.

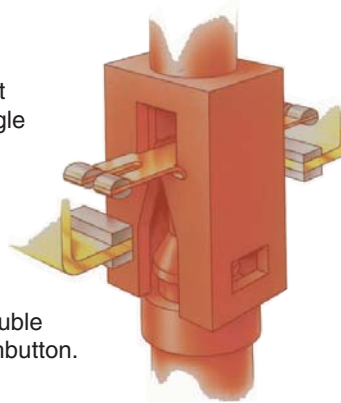
This control and signaling station utilizes snap-on mounted components making field assembly quick and easy. Components include contact blocks with a variety of actuator options, LED pilot lights in all of the standard colors and voltages from 12V to 254V AC/DC, 2-pole and 4-pole control switches configurations and direct or indirect reading ammeters.

### Enclosures

ConSig 8040 Series can be specified as one, two or three gang configurations and is made of Fiberglass Reinforced Polyester (FRP). Enclosure gasketing is durable EPDM which is concealed to protect it from premature aging by UV light and chemical elements. Components snap-on to the rail provided.

### Contact Blocks

The contact system incorporates 8082 Series contact blocks which are individually explosion protected single pole units and are available as 1 N.O. or 1 N.C. The contact blocks incorporate a parallel bridge contact (H-contact) designed to ensure utmost contact reliability even with very low control voltages and currents. Any combination can be installed to provide a complete range of control configurations. Standard actuator styles include a double push-button, booted pushbutton and illuminated pushbutton.



### LED Pilot Lights

ConSig 8040 Series introduces an extraordinary compact LED pilot light unit. The 8010 Series pilot light incorporates electronics which allow the same unit to operate at any voltage from 12 to 254 Volts, DC to 60 Hz. High output LEDs are used to provide superior illumination levels which are visible in direct sunlight from the front or side. The bezel is clear and the snap-on lenses are added in the colors Red, Green, Amber, White and Blue!

### Control Switches

8008 Series control switches offer over 300 different switching configurations. They are available as 2-pole and 4-pole units incorporating maintained or spring return action. The control switch is for quick and easy snap-on mounting. Three styles of handles, with or without padlocking provision can be used in conjunction with the switches.

### Illuminated Push-Buttons

Illuminated push-buttons make it possible to have control and signaling functions in the space of one. This is achieved by combining the 8082 Series Contact Blocks and 8010 Series LED Pilot Lights under a special illuminated pushbutton actuator which is spring return with a clear bezel and five colored snap-in filter disks in Red, Green, Amber, White and Blue.


### Ammeters

ConSig 8040 Series offers a cost effective ammeter station as a solution for applications in a Hazardous (Classified) Location. The 8405 Series ammeter is a moving iron core instrument available in direct or indirect read versions. A manually adjustable red pointer provides quick and easy comparison of the actual circuit operation. The ammeter is for quick and easy snap-on mounting.



### CLASSIFICATIONS

NEC- Class I, Zones 1 & 2 AEx de IIC T6  
Class I, Division 2, Groups A,B,C,D  
Class II, Division 2, Groups F,G  
Class III  
Enclosure Type 3,4 & 4X; IP66

 FILE No. E182378

CEC- Class I, Zones 1 & 2 Ex de IIC T6  
Class I, Division 2, Groups A,B,C,D  
Class II, Divisions 1 & 2, Groups E,F,G  
Class III

 CSA ENCLOSURES 3, 4 & 4X; IP66  
CERTIFIED - FILE No. LR99480

 II 2 G Ex de IIC T6  
II 2 D Ex tD A21 IP66 T80°C  
PTB 01 ATEX 1105

### IECEx

Ex de IIC T6  
Ex tD A21 IP66 T80°C  
IECEx PTB 06.0025

Ambient Temperature Range:  
+40°C (+104°F) Max.  
-20°C (-4°F) Min.

Special Ambient Temperature Range: \*  
\*Consult Factory



PRE-CONFIGURED CONTROL STATIONS



**Ordering Information**

FUNCTION	CONTACT SYMBOL		CATALOG NUMBER
	IEC	NEMA	
"START" Green Momentary Pushbutton, 1 NO			8040/114 - X011
"STOP" RED Momentary Pushbutton, 1NC			8040/114 - Y012
"E-STOP" SMALL RED Maintained Mushroom, 1 NC			8040/114 - Y100
"E-STOP" JUMBO RED Maintained Pushbutton, 1 NC			8040/114 - Y150
"E-STOP" Keyed Maintained Red Mushroom, 1 NC			8040/114 - Y090
"OFF - ON" Selector Switch 2-Position/10 Amps			8040/114 - 02MN1
"LOCAL REMOTE" Selector Switch 2-Positions/10 Amps			8040/114 - U2MN4
"Hand - 0 - Auto" Maintained Selector Switch 3-Positions/10 Amps			8040/114 - 03MMN3
"START-STOP" Double PB Momentary 1 NO / 1 NC			8040/114 - U2312
"PILOT LIGHT" RED LED 12V-254V AC / DC			8040/114 - PLR0
"PILOT LIGHT" GREEN LED 12V-254V AC / DC			8040/114 - PLG0

All above stations include one 3/4" hub bottom.



### PRE-CONFIGURED CONTROL STATIONS

#### Ordering Information

FUNCTION			CONTACT SYMBOL		CATALOG NUMBER
①	②	③	IEC	NEMA	
RED LED Pilot Light 12V-254V AC / DC	---	---			8040/124 - PLR0
"START" Green Momentary Pushbutton 1 NO / 1 NC	---	---			8040/124 - U011
"E-STOP" RED JUMBO Mushroom Maintained 2 NC	---	---			8040/124 - C150
"OFF - ON" Maintained Control Switch 2-Pos./2-Pole 10 amps	---	---			8040/124 - N021
RED LED Pilot Light 12V-254V AC / DC	"OFF-ON" Maintained Control Switch 2-Pos./2-Pole 10 amps	---			8040/224 - PLR0-N021
"H - O - A" Maintained Control Switch 3-Pos./2-Pole 10 amps	---	---			8040/124 - N273
"LOCAL REMOTE" Control Switch 2-Positions 10 amps	---	---			8040/124 - N164
"STOP-RUN START" Control Switch 3-Pos./2-Pole Spring Return From Right 10 amps	---	---			8040/124 - N385
"START" Momentary Green Pushbutton 1 NO / 1 NC	"STOP" Momentary Red Pushbutton 1 NO / 1 NC	---			8040/224 - U011-U012
RED LED Pilot Light 12V- 254V AC / DC	"START-STOP" Double PB Momentary 1 NO / 1 NC	---			8040/224 - PLR0-U2312
RED LED Pilot Light 12V-254V AC / DC	"Start" Green Momentary Pushbutton 1 NO / 1 NC	"STOP" Red Momentary Pushbutton 1 NO / 1 NC			8040/3 34 - PLR0-U011-U012

All above stations include one 3/4" hub bottom.





## CUSTOM CONFIGURATION LOGIC

### Start Here

#### CLASSIFICATIONS

**NEC-** Class I, Zones 1 & 2 AEx de IIC T6  
 Class I, Division 2, Groups A,B,C,D  
 Class II, Division 2, Groups F,G  
 Class III  
 Enclosure Type 3, 4 & 4X; IP66  
 FILE No. E182378

**CEC-** Class I, Zones 1 & 2 Ex de IIC T6  
 Class I, Division 2, Groups A,B,C,D  
 Class II, Divisions 1 & 2, Groups E,F,G  
 Class III  
**CSA ENCLOSURES 3, 4 & 4X; IP66**  
 CERTIFIED - FILE No. LR99480

See page F10

IECEx See page F10

**HOUSING MATERIAL AND GASKETING**  
 Fiberglass Reinforced Polyester (FRP)  
 with EPDM recessed gasketing.

#### FEATURES

The ConSig 8040 Series of control & signaling stations with its many enclosure sizes and components is uniquely flexible. If the preconfigured control stations on pages F11 and F12 do not meet your specific application needs, take advantage of the flexibility of ConSig 8040 and use the custom configuration logic tables on the right to custom configure a control station which can exactly meet your particular application.

#### How to use configuration logic tables:

Fill in the blanks in the light blue striped fields located on the top of pages F13 and F14 left to right from information stated below the individual fields.

**Step 1:** Select enclosure size

**Step 2:** Select entry or entries

**Step 3:** Select the device mounted to the cover as well as the device mounted into the back box.

**Step 4:** Repeat step 3 when configuring a two-gang station.

**Step 5:** Repeat step 3 when configuring a three-gang station.

#### DIMENSIONS

For dimensional data see page F23.

ConSig	Enclosure	
Control Station 8040 /	Enclosure Size ( ___ )	Entry or Entries ( ___ )
	<b>11</b> 1-device Compact	<b>Entry Type:</b> <b>Conduit Hub</b> <b>0</b> = 1/2" Hub Top Feed <b>1</b> = 1/2" Hub Bottom Feed <b>2</b> = 1/2" Hub Feed-Thru <b>3</b> = 3/4" Hub Top Feed <b>4</b> = 3/4" Hub Bottom Feed <b>5</b> = 3/4" Hub Feed-Thru  <b>Compression Gland - FOR IECEx or ATEX</b> <b>6</b> = M25 Gland Top Feed <b>7</b> = M25 Gland Bottom Feed <b>8</b> = M25 Gland Feed-Thru <b>9</b> = Special  <b>Threaded Opening - In Internal Ground Plate</b> <b>A</b> = 1/2" NPT plate Top Feed <b>B</b> = 1/2" NPT plate Bottom Feed <b>C</b> = 1/2" NPT plate Feed-Through <b>D</b> = 3/4" NPT plate Top Feed <b>E</b> = 3/4" NPT plate Bottom Feed <b>F</b> = 3/4" NPT plate Feed-Through <b>G</b> = 1/2" NPT plug Feed-Through <b>H</b> = 3/4" NPT plug Feed-Through <b>L</b> = M20 Plate Bottom Feed <b>M</b> = M25 Plate Bottom Feed  <b>Other Special Entries</b> <b>Non-Metallic Cable Glands</b> <b>J</b> = M20 Gland Bottom Feed <b>K</b> = M20 Gland Feed-Through  <b>Metal Clad Cable Connectors</b> <b>Q</b> = TMC050 Bottom Feed <b>V</b> = TMC075 Bottom Feed  <b>8040 Control Station Coupling</b> <b>Z</b> = Coupling Frame Bottom
	<b>12</b> 1-device Expanded	
	<b>22</b> 2-device	
	<b>64</b> 2-device Expanded	
	<b>33</b> 3-device	
	<b>42</b> Ammeter	
	<b>54</b> Ammeter plus 1-device	
	<b>73</b> One 4 Pole switch Deep	
	<b>84</b> Two 4 Pole switch Deep	
	<b>94</b> Ammeter 1- 4 Pole switch Deep	



### CUSTOM CONFIGURATION LOGIC

Device Specification (1, 2 or 3 devices described from top to bottom)		
First or only position (_____)	Second position (_____)	Third position (_____)

PUSHBUTTONS		
<b>Contact type</b> <b>X</b> = 1 N.O. <b>Y</b> = 1 N.C. <b>U</b> = 1 N.O./ 1 N.C. <b>O</b> = 2 N.O. <b>C</b> = 2 N.C. <b>M</b> = 2 N.C./ 1 N.O. <b>W</b> = 1 N.C./ 2 N.O. <b>T</b> = 3 N.C. <b>R</b> = 3 N.O. <b>D</b> = 2 N.O./ 2 N.C. only with actuator 23 in enclosures 12, 54 & 64	<b>Actuator type</b> <b>01</b> = Standard Momentary <b>02</b> = Booted Momentary <b>03</b> = Black Momentary small Mushroom <b>09</b> = Keyed E-STOP Red Mushroom Maintained <b>10</b> = E-STOP Red small Mushroom Maintained <b>12</b> = Black small Mushroom Maintained <b>15</b> = Emergency STOP Red Jumbo Mushroom Maint. <b>23</b> = Double Pushbutton Momentary <b>P733</b> = Device Close-up Plug	<b>Legend</b> <b>0</b> = none <b>1</b> = START <b>2</b> = STOP <b>3</b> = ON <b>4</b> = OFF <b>5</b> = RUN <b>6</b> = RESET <b>7</b> = OPEN <b>8</b> = CLOSE <b>9</b> = special (specify from F22)

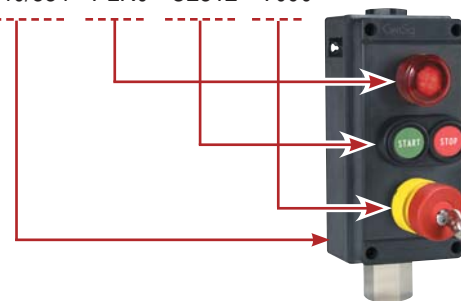
SELECTOR SWITCHES				
<b>X</b> = 1 N.O. <b>Y</b> = 1 N.C. <b>U</b> = 1 N.O./ 1 N.C. <b>O</b> = 2 N.O. <b>C</b> = 2 N.C.	<b>2SK</b> <b>2MK</b> <b>3SSK</b> <b>3MMK</b> <b>3SMK</b> <b>3MSK</b>	<b>2SN</b> <b>2MN</b> <b>3SSN</b> <b>3MMN</b> <b>3SMN</b> <b>3MSN</b>	<b>2SL</b> <b>2ML</b> <b>3SSL</b> <b>3MML</b> <b>3SML</b> <b>3MSL</b>	<b>Note:</b> For Actuator Descriptions see page F16

PILOT LIGHTS		
<b>PL</b>	<b>Color</b> <b>A</b> = amber <b>B</b> = blue <b>G</b> = green <b>R</b> = red <b>W</b> = white	<b>Legend</b> Same # as pushbutton

CONTROL SWITCHES		
<b>Actuator type</b> <b>N</b> = Non-lockable <b>S</b> = Small-lockable <b>L</b> = Large lockable	<b>Switch arrangements 2 pole</b> <b>02</b> = 2-pos. Maintained (OFF-ON) <b>05</b> = 2-pos. Maintained (ON-OFF) <b>16</b> = 2-pos. Maintained (LOCAL-REMOTE) <b>27</b> = 3-pos. Maintained (HAND-O-AUTO) <b>38</b> = 3-pos. Maint., Spring Return from Right (OFF-RUN-START) <b>Switch arrangements 4 pole</b> <b>102</b> = 2-pos. OFF-ON <b>106</b> = 2-pos. LOCAL-REMOTE <b>119</b> = 3-pos. HOA only for deep enclosures 73, 84 & 94 For more switching arrangements see pgs. F19 and F20.	<b>Legend</b> <b>0</b> = none <b>1</b> = OFF-ON <b>2</b> = ON-OFF <b>3</b> = HAND-O-AUTO <b>4</b> = LOCAL-REMOTE <b>5</b> = STOP-RUN-START <b>6</b> = O - I <b>7</b> = blank one line text <b>8</b> = blank two lines text <b>9</b> = special (specify)

ILLUMINATED PUSHBUTTONS			
<b>Spring Return</b> <b>SR</b> = <b>SG</b> = <b>SA</b> = <b>SW</b> = <b>SB</b> =	<b>Colors</b> red green amber white blue	<b>Contact type</b> <b>X</b> = 1 N.O. <b>Y</b> = 1 N.C. <b>U</b> = 1 N.O. / 1 N.C. <b>O</b> = 2 N.O. <b>C</b> = 2 N.C.	<b>Legend</b> Same # as pushbuttons

**Example**  
8040/334 - PLR0 - U2312 - Y090



PUSHBUTTON LOCKOUTS/GUARDS
<b>LK01</b> = Momentary Lockout (01 & 02) <b>LK02</b> = Momentary Exclusion (01 & 02) <b>LK03</b> = Small Mushroom Guard (03,10,12 & 13) <b>LK10</b> = Small Mushroom Lockout (03,10,12 & 13) <b>LK11</b> = Small Mushroom Pin & Chain Lockout (03,10,12, 13 & 15) <b>LK20</b> = Small Mushroom Exclusion Lockout (03,10,12 & 13) <b>LK21</b> = Momentary Pushbutton (01 & 02) exclusion <b>LK23</b> = Double Pushbutton Lockout, 1-device (23)

POTENTIOMETERS	
Dial Increments	Resistance (Ohm) Range
<b>P1</b> = 0-10 scale	<b>01</b> = 100Ω <b>06</b> = 4.7 kΩ <b>11</b> = 220 kΩ <b>02</b> = 220Ω <b>07</b> = 10 kΩ <b>12</b> = 470 kΩ
<b>P2</b> = 0-100 scale	<b>03</b> = 470Ω <b>08</b> = 22 kΩ <b>13</b> = 1 MΩ <b>04</b> = 1 kΩ <b>09</b> = 47 kΩ <b>14</b> = 2.2 MΩ
<b>P6</b> = 0-6 scale	<b>05</b> = 2.2 kΩ <b>10</b> = 100 kΩ <b>15</b> = 4.7 MΩ

AMMETERS	
Direct reading (2X overload): <b>AD....</b>	Scales <b>0-0.02/0.04A</b> <b>0-1/2A</b> <b>0-4/8A</b> <b>0-10/20A</b> <b>0-15/30A</b>
Indirect reading for Current Transformer (5X overload): <b>A1....</b> For 1 AMP C.T.	<b>0-1/5</b> <b>0-50/250</b> <b>0-2/10</b> <b>0-75/375</b> <b>0-5/25</b> <b>0-100/500</b> <b>0-10/50</b> <b>0-150/750</b> <b>0-15/75</b> <b>0-200/1000</b> or <b>A5....</b> For 5 AMP C.T.

**Ammeter Example:**  
8040/424-A1 20/100, Ammeter for CT 1AMP,  
Scale 0-20/100A in  
Enclosure Size 42 with 3/4" NPT Bottom Hub.





**APPROVALS**

- UL** US FILE No. E182378 LISTED
- SFA** CERTIFIED - FILE No. LR99480
- Ex** PTB 01 ATEX 1129 U

IECEX PTB 06.0014 U


STAHL offers a large variety of push-button actuator versions including momentary and maintained action in standard, booted, mushroom, keyed and selector switch styles. A new double push-button actuator combines two control functions in the space of one with the same size button.

Up to three 8082 contact blocks can be mounted under each push-button actuator. Under the double momentary push-button 23, up to four 8082 contact blocks can be mounted. Legend disks, in a variety of standard markings, snap into the center of the actuator making the button function easily identifiable.



PUSH BUTTON ACTUATORS

*Ordering Information*

ACTUATOR DESCRIPTION	INDIVIDUAL ORDER CATALOG NUMBER	ASSEMBLY CODE		
		CONTACT BLOCK	ACTUATOR CODE	LEGEND DISK
<b>Standard Momentary Pushbutton</b> 1.5" (38mm) O.D. Legend disks to be ordered separately, see page F14.	<b>8602A0001-1-S</b>	 M = 2 x NC 1 x NO  W = 1 x NC 2 x NO  T = 3 x NC  R = 3 x NO  X = 1 x NO  Y = 1 x NC  U = 1 NO + 1 NC  O = 2 x NO  C = 2 x NC  D = 2 x NC ① 2 x NO	01 __	0 = none
<b>Booted Momentary Pushbutton</b> 1.5" (38mm) O.D. Legend disks to be ordered separately, see page F14.	<b>8602A0002-1-S</b>		02 __	1 = START
<b>Double Momentary Pushbutton</b> 1.5" (38mm) O.D. Legend disks to be ordered separately, see page F14.	<b>8602A0023-1-S</b>		23 __	2 = STOP
<b>Black Mushroom Pushbutton</b> 1.5" (38mm) O.D. Momentary action. Legend disks to be ordered separately, see page F14.	<b>8602A0003-1-S</b>		03 __	3 = ON
<b>Emergency Stop Red Pushbutton</b> 1.5" (38mm) O.D. Maintained action. Turn-to-Release. Arrow disk and yellow washer supplied.	<b>8602A0010-1-S</b>		10 __	4 = OFF
<b>Maintained Black Mushroom Pushbutton</b> 1.5" (38mm) O.D. Maintained action. Turn-to-Release. Red arrow disk included	<b>8602A0012-1-S</b>		12 __	5 = RUN
<b>Emergency Stop (Jumbo) Red Pushbutton</b> 2.16" (55mm) O.D. Maintained action. Turn-to-Release. Arrow disk and yellow washer supplied.	<b>8602A0015-1-S</b>		13 __	6 = RESET
<b>Emergency Stop Red Mushroom</b> 1.5" (38mm) O.D. Maintained action. Key-to-Release from maintained position. Arrow disk and yellow washer supplied.	<b>8602A0009-1-S -MS1</b>		15 __	7 = OPEN
		09 __	8 = CLOSE	
			9 = special (state text w/order)	

① Only possible under double pushbutton 23 in enclosures 12, 54 & 64.





## SELECTOR SWITCH ACTUATORS

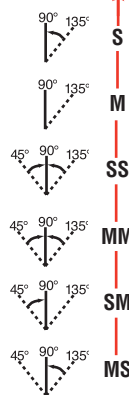


### Ordering Information



ACTUATOR DESCRIPTION	INDIVIDUAL ORDER CATALOG NUMBER	ASSEMBLY CODE		
		CONTACT BLOCK(S)	ACTUATOR CODE	LEGEND
Key Operated Switch - 2 Positions	<b>8602A0008-1-2-r-V-MS1</b>		__2SK__	0 = none
			__2MK__	
Key Operated Switch - 3 Positions	<b>8602A0008-1-3-rr-V-MS1</b>	X = 1 x NO	__3SSK__	1 = OFF-ON
			__3MMK__	
Rotary Actuator 2 Positions Non-lockable	<b>8602A0726-1-2-r</b>	Y = 1 x NC	__2SN__	4 = LOCAL-REMOTE
			__2MN__	
Rotary Actuator 3 Positions Non-lockable	<b>8602A0726-1-3-rr-V</b>	U = 1 NO + 1 NC	__3SSN__	5 = STOP-RUN-START
			__3MMN__	
Rotary Actuator 2 Positions Padlockable in center	<b>8602A0727-1-2-r-V</b>	O = 2 x NO	__3SMN__	6 = 0 - I
			__3MSN__	
Rotary Actuator 3 Positions Padlockable in center	<b>8602A0727-1-3-rr-V</b>	C = 2 x NC	__2SL__	7 = blank, one-line text
			__2ML__	
			__3SSL__	8 = blank, two-lines text
			__3MML__	
			__3SML__	9 = special (specify)
			__3MSL__	

Replacement actuators include parts to convert maintained positions into spring return and to convert key removable positions into non-removable positions.



\* Standard:  
Key removable in all maintained positions.  
Key not removable in all spring return positions.

### APPROVALS

FILE No. E182378

CERTIFIED - FILE No. LR99480

PTB 01 ATEX 1129 U

IECEx  
IECEx PTB 06.0014 U

