

## B8100

ELECTRONIC HANDLES

### Material

**Type one:** Handle shank: glass reinforced polyamide PA 6, black.

Handle tube: Ø30x5mm of aluminium ALMgSi 0,5, black anodised, fine ground.  
Switch Functions: none, blank handle.

**Type two:** Handle shank: glass reinforced polyamide PA 6, black.

Handle tube: Ø30x5mm of aluminium ALMgSi 0,5, black anodised, fine ground.  
Switch functions: 2 push buttons.

**Type three:** Handle shank: glass reinforced polyamide PA 6, black.

Handle tube: Ø30x5mm of aluminium ALMgSi 0,5, black anodised, fine ground.  
Switch functions: two push buttons, 1

emergency stop button.

### Technical Notes

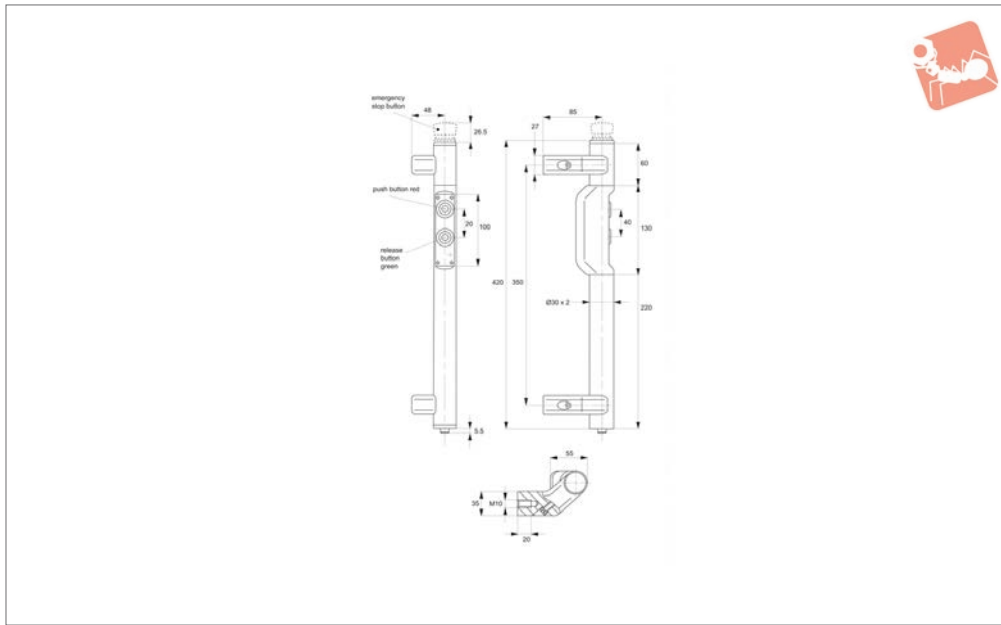
When used with connection cable no. B8880, conforms to IP65 rating.  
Use with door solenoid lock no. B8900 for full electronic locking of machine guards and panels.

Order No.	Type	Switch function	Coupling	a	l
<b>B8100.AC0018</b>	Type One	No Switch - Blank, to Act as a Counter Handle	-	220	282
<b>B8100.AC0318</b>	Type Two	2 Push Buttons	8-pole (M12x1)	220	282
<b>B8100.AC0418</b>	Type Three	2 Push Buttons, 1 Emergency Stop Button	12-pole (M12x1)	220	282



**B8100 Functional handle – electronic**

Wixroyd part no.	B8100.AC0318	B8100.AC0418
Description	2 push buttons	2 push buttons, 1 emergency stop button
Switching voltage – emergency stop button	-	1-42 V AC/DC 100 mA
Switching voltage – push buttons	24V AC/DC 1A	24V AC/DC 1A
Operating voltage LED	24 U DC	24 U DC
Connection type	8 pole, M12 x 1	12 pole, M12 x 1
Connector assignment (plug side view)		
Emergency stop buttons (2 NC contacts)	N/A	
Push button red (1 changeover contact)		
Push button green (2 NC contacts)		



### B8120

ELECTRONIC HANDLES

#### Material

**Type one:** Handle shank: aluminium, vibration ground natural colour anodized.  
 Handle tube: Ø35x2,0mm of stainless steel 1.4301.  
 Switch functions: none, blank handle.  
**Type two:** Handle shank: aluminium, vibration ground natural colour anodized.

Handle tube: Ø35x2,0mm of stainless steel 1.4301.  
 Switch functions: 2 push buttons.  
**Type three:** Handle shank: aluminium, vibration ground natural colour anodized.  
 Handle tube: Ø35x2,0mm of stainless steel 1.4301.  
 Switch functions: two push buttons, 1

emergency stop button.

#### Technical Notes

When used with connection cable no. B8880, conforms to IP65 rating.  
 Use with door solenoid lock no. B8900 for full electronic locking of machine guards and panels.

Order No.	Type	Coupling Type	Switch function	Hand
B8120.AC0000	Type One	-	No Switch - Blank, to Act as Counter Handle.	Right
B8120.AC0102	Type Two	8-pole (M12x1)	2 Push Buttons	Right
B8120.AC0105	Type Three	12-pole (M12x1)	2 Push Buttons, 1 Emergency Stop Button	Right
B8120.AC0122	Type Two	8-pole (M12x1)	2 Push Buttons	Left
B8120.AC0125	Type Three	12-pole (M12x1)	2 Push Buttons, 1 Emergency Stop Button	Left



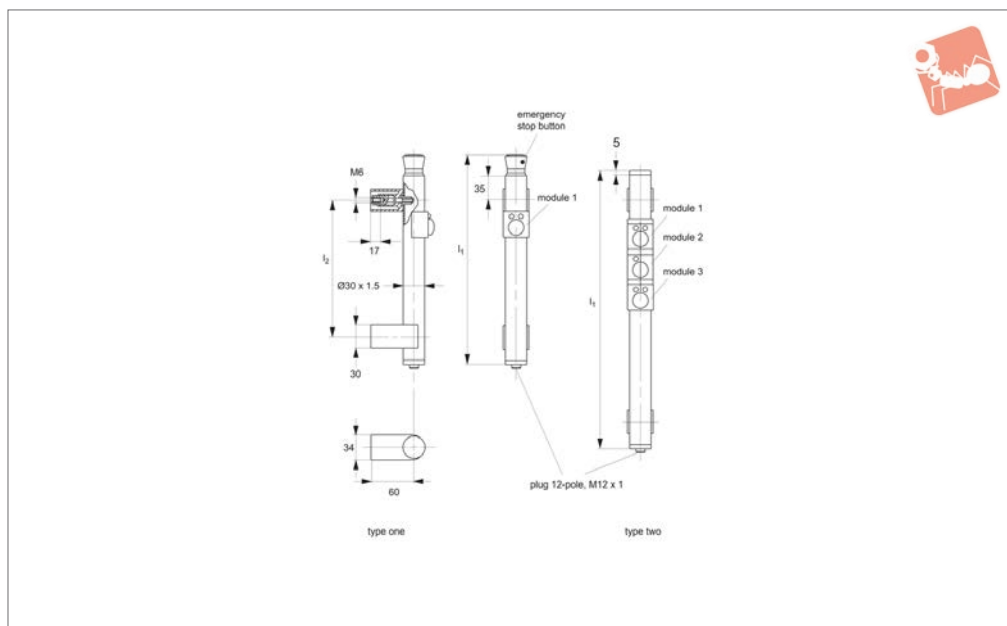
**B8120 Functional handle – electronic**

Wixroyd part no.	B8120.AC0102 & .AC0102	B8120.AC0105 & .AC0125
Description	2 push buttons	2 push buttons, 1 emergency stop button
Switching voltage – emergency stop button	N/a	1-42 V AC/DC 100 mA
Switching voltage – push buttons	24V AC 1A	24V AC 1A
Operating voltage LED	24V DC	24 DC
Connection type	8 pole, M12 x 1	12 pole, M12 x 1
Connector assignment (plug side view)		
Emergency stop buttons (2 NC contacts)	N/A	
Push button red (1 changeover contact)		
Push button green (2 NC contacts)		



# Functional Handle - Electronic configurable controls

## Electronic Handles



### B8320

ELECTRONIC HANDLES

#### Material

**Type one:** Handle shank: extruded aluminium, AlMgSi 0,5, black anodized with matte gloss finish.

Handle tube: Ø30x1,5mm of aluminium AlMgSi 0,5, black anodised with matte gloss finish or from stainless steel 1.4301, precision ground.

Tube ends: reinforced polyamide PA 6, black.

Switch functions: 1 push button, 1 emergency stop button.

**Type two:** Handle shank: extruded aluminium, AlMgSi 0,5, black anodized with matte gloss finish.

Handle tube: Ø30x1,5mm of aluminium AlMgSi 0,5, black anodised with matte gloss finish or from stainless steel 1.4301, precision ground.

Tube ends: reinforced polyamide PA 6,

black.

Switch Functions: 3 push buttons/modules.

#### Technical Notes

When used with connection cable no. B8880, conforms to IP65 rating.

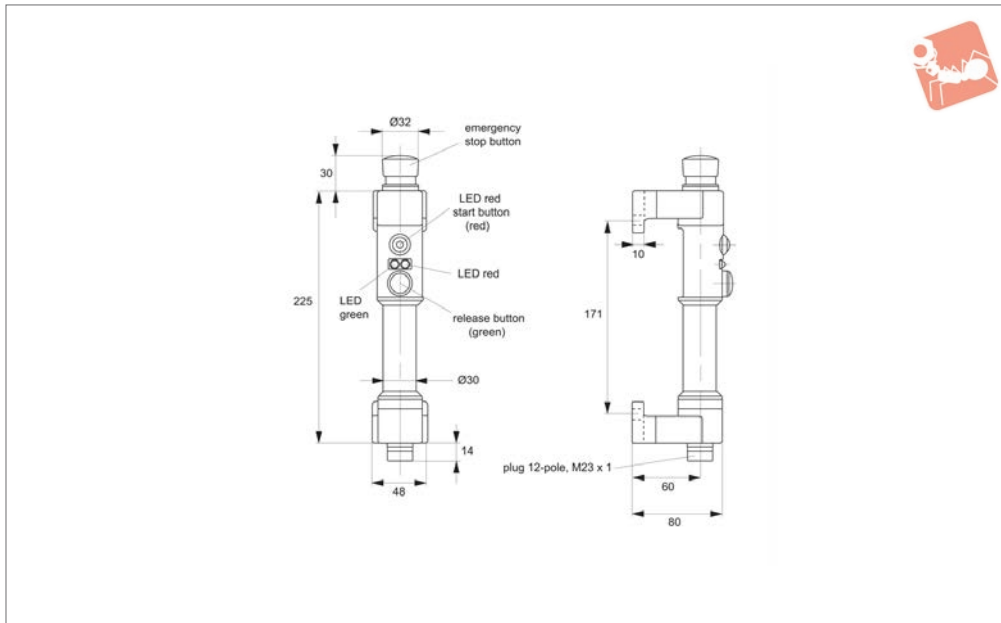
Use with door solenoid lock no. B8900 for full electronic locking of machine guards and panels.

Order No.	Lock type	Coupling Type	Material	l <sub>1</sub>	l <sub>2</sub>
<b>B8320.AC0304</b>	Type One	12-pole (M12x1)	Aluminium	416	300
<b>B8320.AC0337</b>	Type One	12-pole (M12x1)	Stainless	416	300
<b>B8320.AC0404</b>	Type Two	12-pole (M12x1)	Aluminium	484	400
<b>B8320.AC0437</b>	Type Two	12-pole (M12x1)	Stainless	484	400



**B8320 Functional handle – electronic**

Wixroyd part no.	B8320.AC0304 & .AC0337	B8320.AC0404 & .AC0437
Description	2 push buttons	2 push buttons, 1 emergency stop button
Switching voltage	24V DC max. 30V AC/36V DC max. 1.5A	24V DC max. 30V AC/36V DC max. 1.5A
Operating voltage LED	24V DC +/-15%	24V DC +/-15%
Connection type	12 pole, M12 x 1	12 pole, M12 x 1
Connector assignment (plug side view)		
Emergency stop buttons		N/A
Push button 1 – Module 1		
Push button 2 – Module 2	N/A	
Push button 3 – Module 3	N/A	
Module inscription	N/A	All three modules



### B8380

ELECTRONIC HANDLES

#### Material

**Type one:** Handle shank: high strength glass fibre reinforced polyamide PA 6, black.  
 Handle tube: turned POM (polyoxymethylene).  
 Switch functions: none, blank handle.  
**Type two:** Handle shank: high strength

glass fibre reinforced polyamide PA 6, black.  
 Handle tube: turned POM (polyoxymethylene).  
 Switch functions: 1 release button, 1 start button, 1 dual channel emergency stop button (2 NC contacts).

#### Technical Notes

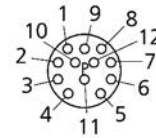
When used with connection cable no. B8880, conforms to IP65 rating.  
 Use with door solenoid lock no B8900 for full electronic locking of machine guards and panels.

Order No.	Type	Coupling Type	Switch function	a	l
B8380.AC0018	Type One	-	No Switch - Blank, to Act as Counter Handle	171	225
B8380.AC0518	Type Two	12-pole (M23x1)	1 Release Button, 1 Start Button, @1 Dual Channel Emergency Stop Button	171	225

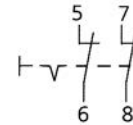


<b>Wixroyd part no.</b>	<b>B8380.AC0578</b>
Description	Type two
Switching voltage	Type two
Operating voltage LED	24V DC +/- 15%
Connection type	12-pole (M23 x 1)

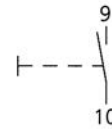
Connector assignment  
(plug side view)



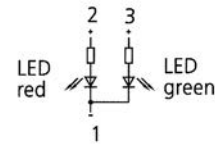
Emergency stop button  
(2 NC contacts)



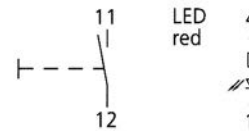
Release button (no contact)



LED's



Start button







# Coupling Cable

for functional handles B8100 to B8400

## Electronic Handles



**B8880**

ELECTRONIC HANDLES

**Material**

Cable spot welded to coupling.

**Technical Notes**

Ready made cable for use with our func-

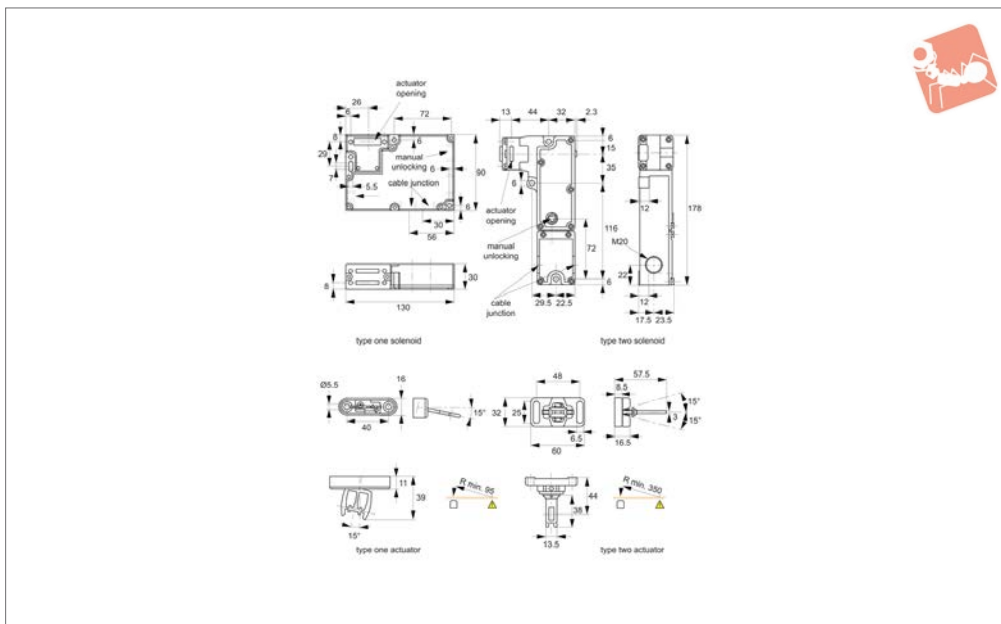
tional handle range B8100 to B8380.

Please review individual handles for more suitable coupling types.

Order No.	Coupling Type	Thread	Cable length m
<b>B8880.AC0080</b>	8-Pole	M12x1	5
<b>B8880.AC0082</b>	8-Pole	M12x1	10
<b>B8880.AC0120</b>	12-Pole	M12x1	5
<b>B8880.AC0122</b>	12-Pole	M12x1	10
<b>B8880.AC0125</b>	12-Pole	M23x1	10



## B8900



### Material

**Type one:** Enclosure: glass fibre reinforced plastic.

Actuator and locking bolt: stainless steel 1.4301.

Contact material: silver.

**Type two:** Enclosure: glass fibre reinforced plastic.

Actuator and Locking Bolt: zinc plated steel/zinc die cast, chromated.

Contact material: silver.

### Technical Notes

The switching element and actuator of the solenoid interlock are functionally separated and are only brought together on opening or closing of the door/enclosure. A latching bolt provides connection and prevents the actuator being disconnected from interlock.

### Important Notes

Two interlock modes are available:

- Power to Unlock: spring pressure of the latching bolt prevents the actuator from being disconnected. When the de-interlocking coil is energised, the interlock is released and the enclosure can be opened.
- Power to Lock: operation is the reverse of the Power to Unlock mode.

Order No.	Type	Components	Modes of interlock
B8900.AC0105	Type One	Solenoid Interlock	Power to Unlock
B8900.AC0110	Type One	Solenoid Interlock	Power to Lock
B8900.AC0120	Type One	Actuator	-
B8900.AC0205	Type Two	Solenoid Interlock	Power to Unlock
B8900.AC0210	Type Two	Solenoid Interlock	Power to Lock
B8900.AC0220	Type Two	Actuator	-

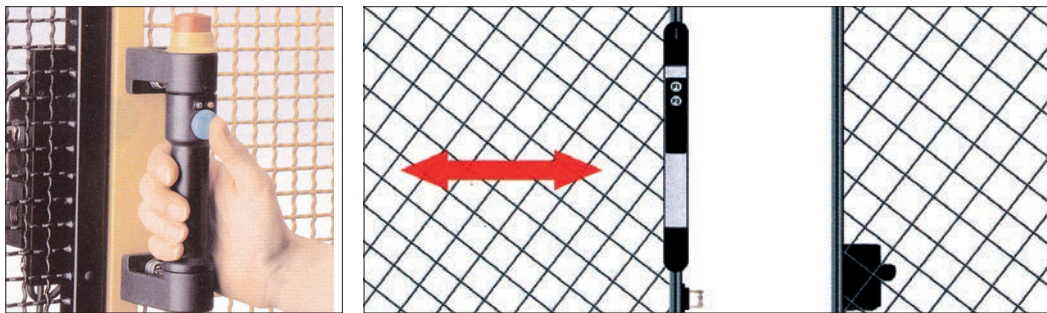


Wixroyd's functional handles **B8100 - B8900** provide the ideal combination of ergonomics, productivity and safety for machine guards, enclosures or wherever there is a machine/operator interface.

Wixroyd functional handles incorporate switching, control and monitoring functions exactly at the point they are required - namely the enclosure handle. Functional handles are mounted on the moveable part of the door/enclosure, while the additional solenoid interlock, part no. **B8900**, which enables locking and monitoring of the door condition, is mounted on the static part of the door/enclosure. All models in the series have been designed on the same basic principles and can incorporate the following functions:

- **Simple operation;** all buttons and controls on the handles are simply activated with the thumb allowing for control and opening of the guard in just one movement.
- **Deactivation of the dead lock;** each handle has a button to deactivate and unlock the dead lock, two LED's indicate whether the door is locked or unlocked.
- **Safety;** machine start and stop buttons can optionally be integrated into the handle, as well as a machine emergency stop button.
- **Modular design;** handle **B8320** has been designed on a modular basis allowing for individual programming of handle functions for your own application
- **Electromechanical locking;** in combination with our solenoid interlocking devices **B8900** our functional handles provide an electromechanical locking system for both revolving and push doors.

Basic non-functional handles available in same design to act as counter-handles.



**Programmable**  
Robust functional handles with separately programmable elements to suit any application.



**Functional**  
Functional handle with inbuilt emergency stop with 2 NC and 1 NO contacts for PLC systems.



**Ergonomic**  
Simple and ergonomic mechanically locking handles, with electrical monitoring function; for use on cabinets and enclosures.



**Inter-locking**  
Solenoid interlocks can be used to bolt doors or enclosures mechanically, with switching contacts enabling the monitoring of the lock/enclosure status.



**Release button**  
Activating the release button deactivates the dead lock and opens the safety door. Two LED's above the release button indicate to the operator whether the door is locked or unlocked.



**Emergency stop**  
Optional emergency stop button allows the operator to bring the entire machine to a stand still. The machine can then be resumed by re-setting the handle via a twist of the button. Conforms to EN418.

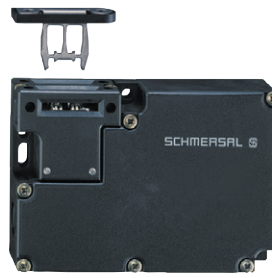


**Start button**  
Machine start buttons can be included in the handle to initiate the machine.



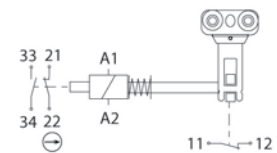
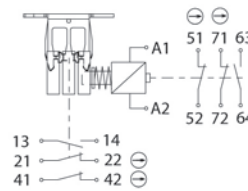
**Positioning**  
The start button can be positioned either above the door release button or when no emergency stop button is used, can be positioned on the top of the handle.

## Features



Wixroyd part no.	B8900.AC01xx	B8900.AC02xx
Standards	IEC/EN 60947-5-1, BG-GS-ET-19, IEC 60947-5-1	IEC/EN 60947-5-1, BG-GS-ET-19, IEC 60947-5-1
Enclosure	Glass-fibre reinforced thermoplastic	Glass-fibre reinforced thermoplastic
Actuator and locking bolt	Stainless steel 1.4301	Zinc-plated steel/zinc diecast, chromated
Contact material	Silver	Silver
Protection class	IP67	IP67
Termination	Screw clamps	Screw clamps
Cable section	Max. 1.5mm <sup>2</sup> (inc. conductor ferrules)	Max. 1.5mm <sup>2</sup> (inc. conductor ferrules)
Cable entry	4 x M16 x 1,5	4 x M20 x 1,5
Rated impulse withstand voltage U <sub>i</sub>	4 kV	2.5 kV
Rated insulation voltage U <sub>1</sub>	250 V	250 V
Thermal test current I <sub>the</sub>	10 A	10 A
Rated operating current /voltage i <sub>e/Ve</sub>	2,5 A/24 VDC	2,5 A/24 VDC
Rated control voltage U <sub>s</sub>	24 VAC/DC	24 VDC
Ambient temperature	-25° C... to +60° C	0° C... to +50° C
Holding force F max.	2000 N	1750 N
Actuating head	3 actuator openings	Can be repositioned by 4 x 90°
Manual release	For manual unlocking by triangular key. Emergency exit device and emergency release optional available	For manual unlocking by triangular key. Emergency release optional available

Power to unlock



Power to lock

