

Push-button box

Smile 41 AS-i

Approvals:

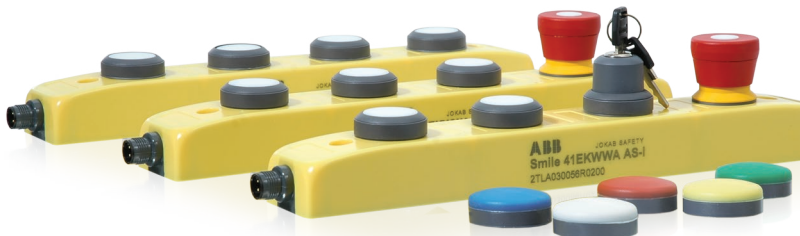


Application:

- Safe stop of a machine or a process
- Safe mode selection
- Start, reset, stop buttons

Features:

- Compact size
- LED indication
- Simple AS-i connection
- Fast M12 connection



Smile 41 AS-i gathers push-buttons, emergency stop button and a safe key selector in a single compact device easily connected to an AS-i cable.

Reduced stock levels and development time

Smile 41 AS-i exists in three different models and is highly adaptable. A kit of coloured filters is supplied and the colour of each button can be chosen after delivery and changed later. Vampire connectors makes it very easy to move, add or remove a device.

High level of safety with no risk of connection mistake

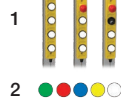
Both the safe key selector and the emergency stop button satisfy the highest levels of safety. Moreover, the use of AS-i Safety allows reaching the highest level of safety while eliminating most risks of connection mistake.

Faster installation

Thanks to its small size and centred mounting holes, Smile 41 AS-i is easy to position. The four buttons/key selector are connected with only one M12 connector. The AS-i system reduces tremendously the necessary cable lengths and the M12 connector speeds up the connection. The vampire connectors facilitate changes.

Less downtime

All the push-buttons and the emergency stop button are equipped with an easily programmed LED for a perfect adaptation to the needs of the application, a better user friendliness and easier troubleshooting.



1. Choose your model
2. Choose the color of the push-button by using one of the provided filter.

For example:

Blue is quite common for a reset button, and white for a start button. You can choose and change opinion as you please.

Our example uses a Smile 41 EKWWA

- The emergency stop button stops all movement in the cell when pushed
- The key selector is used to choose between a normal mode and a maintenance mode, each mode with own safety functions.
- One push-button is used to request the unlocking of the door.
- One push-button is used as reset button.

Models and ordering data

Smile 41 WWWWN AS-i	2TLA030056R0000	4 push-buttons	One non-safe AS-i node
Smile 41 EWWWA AS-i	2TLA030056R0100	1 emergency stop + 3 push-buttons	One non-safe* and one safe AS-i node
Smile 41 EKWWA AS-i	2TLA030056R0200	1 emergency stop + 1 key selector + 2 push-buttons	One non-safe* and two safe AS-i nodes
Key for key selector (spare part)**	2TLA030059R1500	Key for key selector (spare part)	
Kit of colour filters (spare part)**	2TLA030059R2600	Blue, green, red, white, yellow	
AS-i T-connector with M12	2TLA020073R0000	Flat cable connector to M12	

* Extended non-safe slave (A/B) ** Delivered with the Smile 41 AS-i

The cables between Smile 41 AS-i and the AS-i T connector should be M12 male + female cables with 5 conductors. For cables with M12 connectors, see our Product list "accessories, connectors and cables".

Technical data - Smile 41AS-i

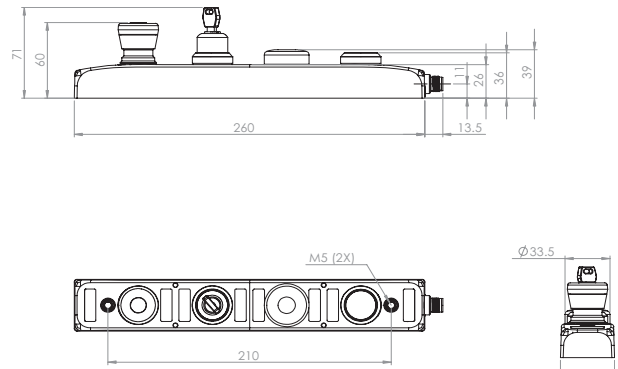
Functional Safety Data																	
IEC/EN 61508-1...7	SIL3: PFD _{avr} : 2.95x10 ⁻⁶ , PFH _d : 6.95x10 ⁻⁹																
EN 62061	SIL3																
EN ISO 13849-1	Up to PL e/Cat.4 - MTTF _d : High																
EN 60947-5-1 & -5	For E-stop button / safety stop button																
EN ISO 13850:2008	For E-stop button / safety stop button																
Certificates	Certificates and manuals with additional information can be found on www.abb.com/jokabsafety																
AS-i profile	Safe node: S-7.B.0 Non-safe node XXXXA: S-7.A.0 Non-safe node XXXXN: S-7.0																
Addressing	M12-connector																
Node address at delivery	Illuminated push-buttons: 0, Emergency stop button: 31, Key selector: 30																
Response time over AS-i bus	5 ms (+ response time of safety monitor)																
Operating voltage	30 VDC, AS-i bus. Tolerance 26.5 – 31.6 VDC.																
Total current consumption	Emergency stop button: 80 mA, Illuminated push-buttons: 150 mA, Key selector: 80 mA																
Protection class	IP65																
Ambient temperature	-25...+50°C																
Size	70.5 x 40 x 260 mm (+13.5 mm M12 connector)																
Weight	0.19 kg																
Colour	Box: Yellow, Emergency stop button: Red, Illuminated push-button (without colour filter): White, Key selector: Grey																
Connector	M12-4 pin male																
	<table border="1"> <thead> <tr> <th></th> <th>Emergency stop button:</th> <th>Illuminated push-button:</th> <th>Key selector:</th> </tr> </thead> <tbody> <tr> <td>Actuating force</td> <td>22 ± 4 N</td> <td>7 ± 3 N</td> <td>1.3 Nm max</td> </tr> <tr> <td>Actuator travel</td> <td>Approx. 4 mm to latch</td> <td>Approx. 4 mm</td> <td>± 45°</td> </tr> <tr> <td>Mechanical life</td> <td>> 50 000 operations</td> <td>1000000</td> <td>30000</td> </tr> </tbody> </table>		Emergency stop button:	Illuminated push-button:	Key selector:	Actuating force	22 ± 4 N	7 ± 3 N	1.3 Nm max	Actuator travel	Approx. 4 mm to latch	Approx. 4 mm	± 45°	Mechanical life	> 50 000 operations	1000000	30000
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Conformity	European Machinery Directive 2006/42/EC; EN 61508:2010, parts 1-7; EN 62061:2005; EN ISO 13849-1:2008; EN ISO 13849-2:2012; 60947-5-5:2005																

Connections*

Brown (1)	AS-i +
White (2)	Not used
Blue (3)	AS-i -
Black (4)	Not used

* Note: Colours according to ABB Jokab Safety standard cables

Smile 41 AS-i dimensions



All dimensions in mm