

Smile 41

Push-button box

Smile 41 is a push-button box that gathers push buttons, an emergency stop button and a safe key selector in a single compact device with only one M12 connector for all functions.

Smile 41 push-button box is available in models for use with Pluto programmable safety controller and models for all types of AS-i safety monitors.

A kit of colored filters is supplied and the color of each button can be chosen after delivery and changed later.



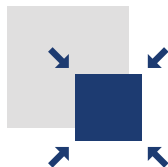
Easy to install

Easy to attach to profiles

The centered mounting holes makes Smile 41 easy to attach to e.g. aluminum extrusions profiles like Quick-Guard.

Quick installation

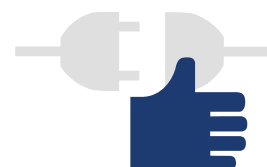
The four buttons are connected with only one M12 connector which speeds up the connection. A maximum of 8 wires need to be connected for the complete push-button box with LEDs. The AS-i models also offer the flexibility of vampire connectors with piercing technology and self-healing cables.



Space saving

Compact housing

A compact and appealing housing saves space and makes it easy to place.



Optimum interface

LED indication

All push-buttons and emergency stop buttons are illuminated. The lighting of the push-buttons can easily be managed by the Pluto programmable safety controller, allowing a greater adaptation to the needs.

Several button colors

The color of each button can be chosen after delivery and changed later.

Applications and features

Smile 41

Applications

Smile 41 is a convenient way to gather several buttons at the same place while reducing cabling and installation. For example, an emergency stop button, a push button used to request the unlocking of the door, a push button used as reset button, and a push button used as start button.



Features

With Pluto programmable safety controller without AS-i function

The Smile 41 models without AS-i function have been developed for use with Pluto programmable safety controller and allow to get all the advantages of the Pluto “light-button function”: only one I/O (IQ) is necessary for both a push-button and its LEDs and the lighting of the reset buttons can be handled by Pluto without any extra programming.

The emergency stop button satisfies the highest level of safety, and although only one cable is used for the signals of the four buttons, a possible short-circuit can be detected by Pluto and the highest level of safety can be reached.

Kit of colored filters

A kit of colored filters is supplied with all models and the color of each push button can be chosen after delivery and changed later.



With AS-i safety monitor e.g. Pluto AS-i and Pluto B42 AS-i

All AS-i models of Smile 41 can be used with any AS-i safety monitor. The AS-i system significantly reduces the necessary cable lengths and the M12 connector speeds up the connection. The vampire connectors with piercing technology and self-healing cables facilitate changes.

Both the safe key selector and the emergency stop button satisfy the highest level of safety. Moreover, the use of AS-i Safety makes it easy to reach the highest level of safety while eliminating most risks of connection mistakes.

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.

Centered mounting holes

Centered mounting holes facilitate the mounting of Smile 41 on aluminum profiles like Quick-Guard.

Ordering information

Smile 41



Smile 41 WWWWP

2TLC172715F0201



Smile 41 EWWWP

2TLC172717F0201



Smile 41 WWWWN AS-i

2TLC172602F0201



Smile 41 EWWWA AS-i

2TLC172605F0201



Smile 41 EKWWA AS-i

2TLC172708F0201

Smile 41 push button box

All Smile 41 push-button boxes are delivered with a kit of filters

Safety controller	Emergency stop button	Other buttons	Connector	Type	Order code
Pluto programmable safety controller	0	4 push-buttons	M12-8 male	Smile 41 WWWWP	2TLA030057R0000
	1	3 push-buttons	M12-8 male	Smile 41 EWWWP	2TLA030057R0100
AS-i monitor*	0	4 push-buttons	M12-5 male	Smile 41 WWWWN ASi	2TLA030056R0000
	1	3 push-buttons	M12-5 male	Smile 41 EWWWA ASi	2TLA030056R0100
		1 safe key selector 2 push-buttons	M12-5 male	Smile 41 EKWWA ASi	2TLA030056R0200

* E.g. Pluto AS-i and Pluto B42 AS-i

Spare parts

Description	Type	Order code
Kit of colored filters	Colored filters	2TLA030059R2600

Cables and connectors

Smile 41



M12-C61

2TLC172951F0201



M12-C61HE

2TLC010008F0201



M12-C334

2TLC172931F0201

Cable with connectors

Connector	Female/male	Length	Special feature	Type	Order code
M12-5	Female	6 m		M12-C61	2TLA020056R0000
			Harsh environment, halogen free	M12-C61HE	2TLA020056R8000
		10 m		M12-C101	2TLA020056R1000
			Harsh environment, halogen free	M12-C101HE	2TLA020056R8100
	Female + male	20 m		M12-C201	2TLA020056R1400
		0.3 m		M12-C0312	2TLA020056R5800
		0.06 m		M12-C00612	2TLA020056R6300
		1 m		M12-C112	2TLA020056R2000
		3 m		M12-C312	2TLA020056R2100
		6 m		M12-C612	2TLA020056R2200
		10 m		M12-C1012	2TLA020056R2300
			Angled female connector	M12-C1012V2	2TLA020056R6700
		16 m		M12-C1612	2TLA020056R5400
		20 m		M12-C2012	2TLA020056R2400
M12-8	Female	6 m		M12-C63	2TLA020056R3000
		10 m		M12-C103	2TLA020056R4000
		20 m		M12-C203	2TLA020056R4100
	Female + male	0.06 m		M12-C00634	2TLA020056R6400
		1 m		M12-C134	2TLA020056R5000
		3 m		M12-C334	2TLA020056R5100

Separate cables and connectors

Description	Type	Order code
Connectors		
M12-5 pole female, straight	M12-C01	2TLA020055R1000
M12-5 pole male, straight	M12-C02	2TLA020055R1100
M12-8 pole female, straight	M12-C03	2TLA020055R1600
M12-8 pole male, straight	M12-C04	2TLA020055R1700

Cable with 5 conductors

10 m cable with 5 x 0.34 shielded conductors	C5 cable 10 m	2TLA020057R0001
50 m cable with 5 x 0.34 shielded conductors	C5 cable 50 m	2TLA020057R0005
100 m cable with 5 x 0.34 shielded conductors	C5 cable 100 m	2TLA020057R0010
200 m cable with 5 x 0.34 shielded conductors	C5 cable 200 m	2TLA020057R0020
500 m cable with 5 x 0.34 shielded conductors	C5 cable 500 m	2TLA020057R0050

Cable with 8 conductors

50 m cable with 8 x 0.34 shielded conductors	C8 cable 50 m	2TLA020057R1005
100 m cable with 8 x 0.34 shielded conductors	C8 cable 100 m	2TLA020057R1010
200 m cable with 8 x 0.34 shielded conductors	C8 cable 200 m	2TLA020057R1020
500 m cable with 8 x 0.34 shielded conductors	C8 cable 500 m	2TLA020057R1050



M12-C01

2TLC172857F0201



C5 cable

2TLC010038F0201



AS-i cable yellow

2TLC172742F0201

Cables and connection accessories for AS-i

Description	Type	Order code
Cable for AS-i, power and data, +30 VDC, yellow, EPDM	AS-i cable yellow	2TLA020074R9000
Cable for AS-i, additional power, +24 VDC, black, EPDM	AS-i cable black	2TLA020074R9100
M12-5 female connector with vampire connector for AS-i flat cable.	AS-i T-connector M12	2TLA020073R0000
As-i flat cable splitter used to make T-connections and to extend cables.	AS-i splitter box	2TLA020073R0300

Technical data

Smile 41

Technical data

	Smile 41	Smile 41 AS-i
Approvals	TÜV NORD 	TÜV NORD  
Conformity	CE 2006/42/EC - Machinery EN 61508:2010 parts 1-7, EN 62061:2005, EN ISO 13849-1:2008, EN ISO 13849-2:2012, 60947-5-5:2005	
Functional safety data		
IEC 61508:2010	Up to SIL3, depending on system architecture	SIL3, $PFH_D = 2.87 \times 10^{-10}$
EN/IEC 62061:2005	Up to SILCL3, depending on system architecture	SILCL3, $PFH_D = 2.87 \times 10^{-10}$
EN ISO 13849-1:2008	Up to Cat. 4/PL e, depending on system architecture	Cat. 4/PL e, $PFH_D = 2.87 \times 10^{-10}$
B10 _d	65 000	
Electrical data		
Operating voltage	+24 VDC $\pm$ 15%	+30 VDC (AS-i bus)
Mechanical data		
Mechanical life		
Emergency stop button	> 50 000 operations	
Illuminated push button	1 000 000 operations	
Key selector	-	30 000
Operating temperature	-25... +50°C	
Protection class	IP65	
Weight	190 g	

More information

For more information, e.g. the complete technical information, see product manual for:

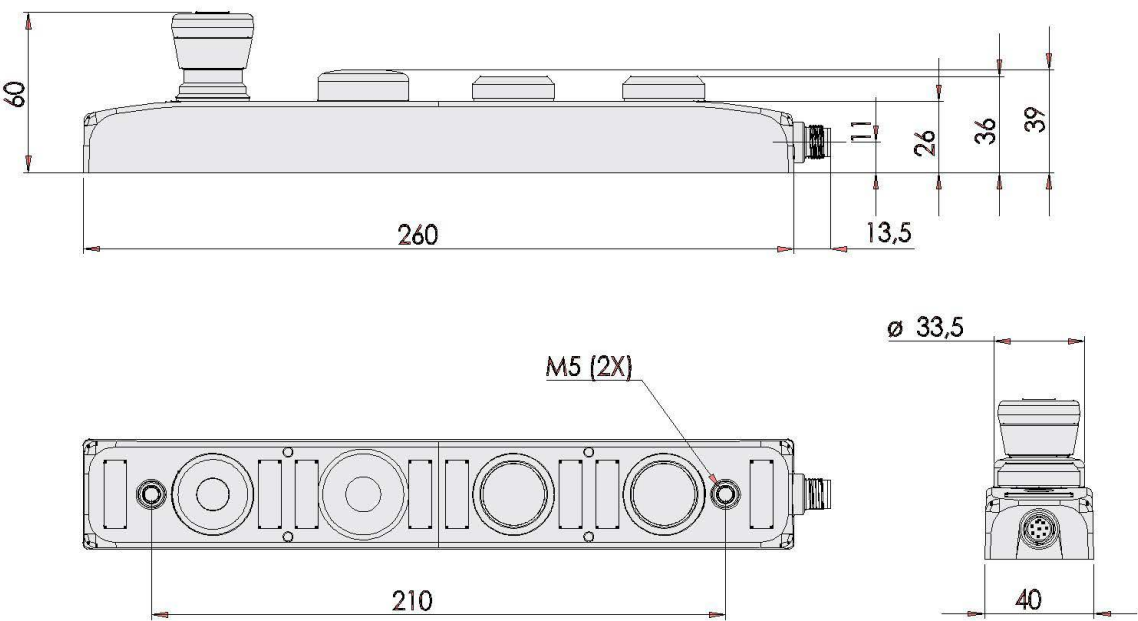
Smile 41 [2TLC172280M0201](#)

Smile 41 AS-i [2TLC172255M0201](#)

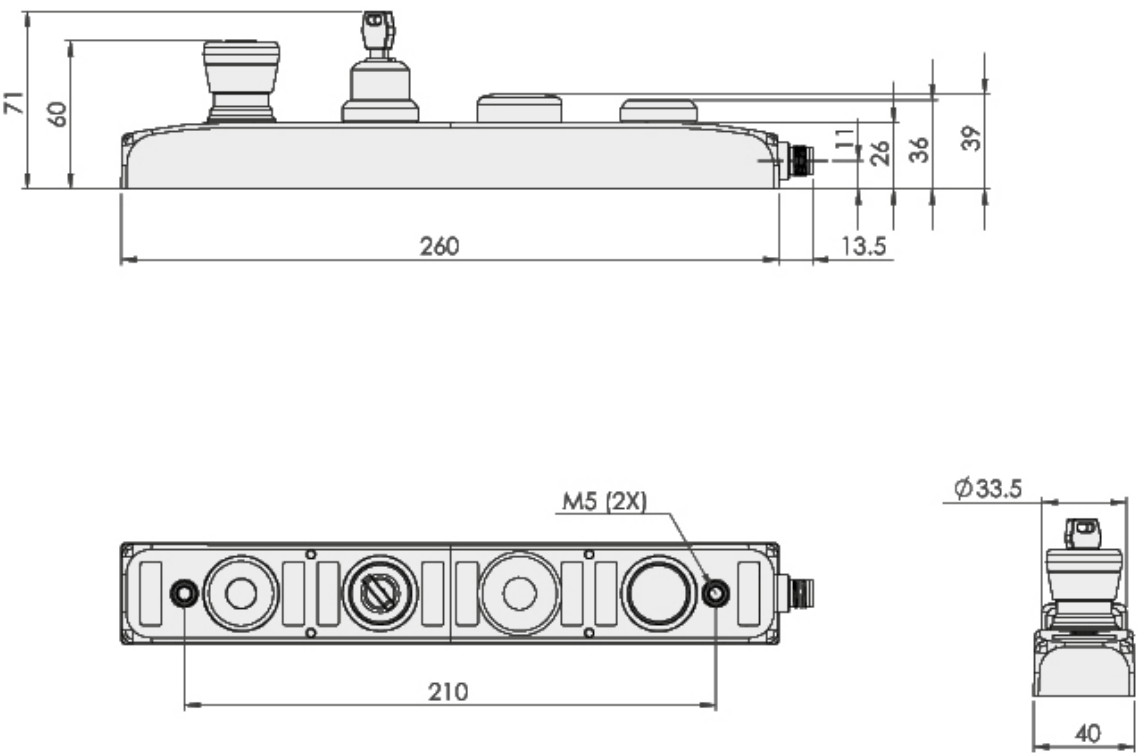
Dimension drawings

Smile 41

Smile 41



Smile 41 AS-i



All dimensions in mm

Contact us

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