

SwitchModulesSealed

IP68 Modular Switch Modules with SAE J1939 interface

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Product overview

The sealed switch modules are equipped with a modular structure and its focus on the on-board area perfect for installation in cabs of commercial vehicles as sustain modules.

The module concept consists of a master module that connects directly to the SAE J1939. Up to 7 expansion modules can be attached via a module integrated LIN 2.0 master in the bus. This enables up to 24 conventional switches to be replaced.

The individual switches can be equipped with different sub actuators, whereby it can be utilized as a push-button or a switch key. The three rockers are clipped upon the module. They are available with or without a custom label.

Basically, this modules are equipped with a 4- color status indicator bar between the buttons and a separate lighting of the symbols (On, Off, Flash).

“Wake on CAN” or “Wake on switch” functions are implemented for a power saving operation.

The modules can be easily configured and b-plus offers a free software component for CODESYS® for these modules.

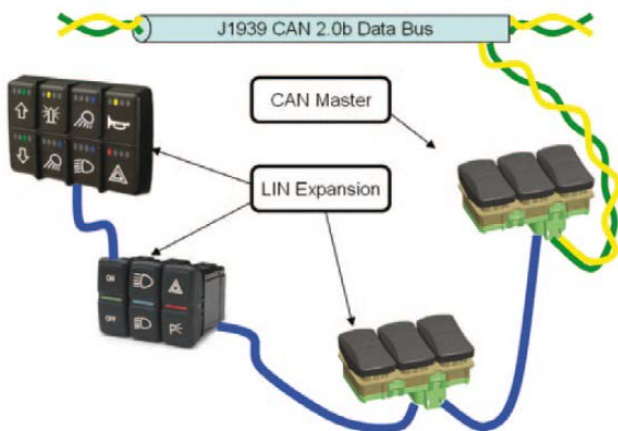


Illustration 1:

(Left side) Master module with SAE J1939 interface, with customized rockers and 3-way switch keys

(Right side) Master module with 1x 3-way switch keys, 1x push button, 1x 3-way switch key with palm guard

Exemplary system setup:



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Hardware specification

Protocol: SAE J1939 (LIN2.0 internal)
Life time: Up to 500,000 cycles
Expansion: Up to 7 expansion modules for up to 24 rockers
Protection class: IP68
Operating temp.: -40 - +85°C
Operating voltage: 9 – 32 V DC
Mechanical Shock: 30g for 11ms
Mechanical Vibration: MIL-STD-202F/201A 2.0g random

Modular setup

Rocker

(customized engraving possible)

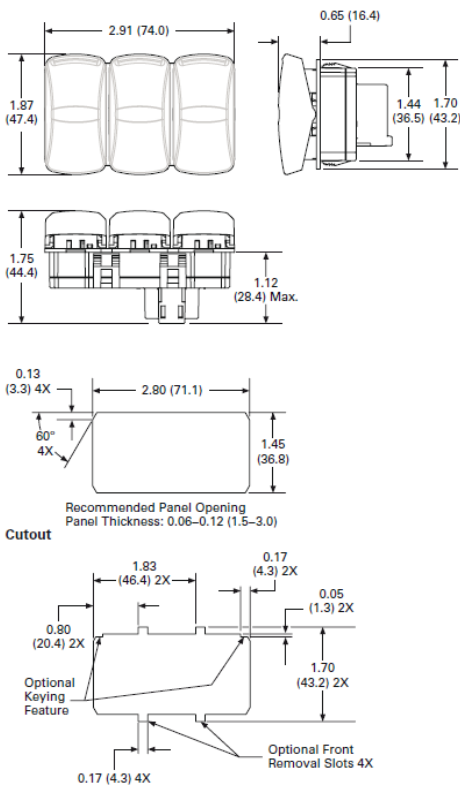
Subactuator

(push-button or switch keys)

Master/Expansionmodule

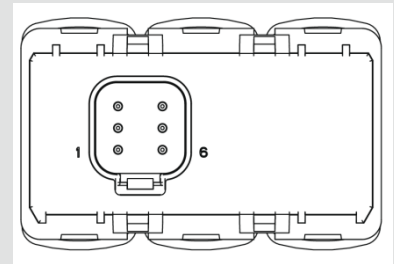
Illustration 1: Rocker is the cover with icons, Sub actuator is below the rocker for the sustain / button functionality and is mounted on the Master Expansion module with the LED indicators and the J1939/LIN connectivity

Dimensions and cutout



Connections of the MasterModul

Terminal Number	Function
1	Vbat
2	COMMON
3	CAN high
4	CAN low
5	COMMON
6	LIN



Connections of the ExpansionModul

Terminal Number	Function
1	Vbat
2	COMMON
3	LIN
4	LIN
5	COMMON
6	Vbat

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Order information

Name	Order number	Description
SwitchModulMaster IP68	B12460-SMM-000-E333	Switch module Master Sealed for Interface an CAN (J1939) with LIN Interface for SwitchModulExpansion, IP68, -40..+85°C, 9-32 V DC
SwitchModulExpansion IP68	B12461-SME-000-E333	Expansion Switch module Sealed with LIN Interface, IP68, -40..+85°C, 9-32 V DC - one SwitchModulMaster required -
SwitchModulMaster Sealed	B12450-SMM-001-E333	Switch module Master Sealed for Interface an CAN (J1939) with LIN Interface for SwitchModulExpansion, IP68, 500 000 Cycles, -40..+85°C, 9 .. 32 V DC
SwitchModulMaster Sealed pg	B12450-SMM-001-E33F	Switch module Master Sealed with FULL palm guard for Right rocker for Interface an CAN (J1939) with LIN Anschluss for SwitchModulExpansion, IP68, 500 000 Cycles, -40..+85°C, 9 .. 32 V DC
SwitchModulMaster Sealed pg	B12450-SMM-001-E33T	Switch module Master Sealed with TOP palm guard for Right rocker for Interface an CAN (J1939) with LIN Interface for SwitchModulExpansion, IP68, 500 000 Cycles, -40..+85°C, 9 .. 32 V DC
SwitchModulMaster Sealed pg	B12450-SMM-001-E33B	Switch module Master Sealed with BOTTOM palm guard for Right rocker for Interface an CAN (J1939) with LIN Interface for SwitchModulExpansion, IP68, 500 000 Cycles, -40..+85°C, 9 .. 32 V DC
SwitchModulExpansion Sealed	B12451-SME-001-E333	Expansion Switch module Sealed with LIN Interface, IP68, 500 000 Cycles, -40..+85°C, 9 .. 32 V DC - one SwitchModulMaster required -
SwitchModulExpansion Sealed pg	B12451-SME-001-E33F	Expansion Switch module Sealed with FULL palm guard for Right rocker with LIN Interface, IP68, 500 000 Cycles, -40..+85°C, 9..32 V DC - one SwitchModulMaster required -
SwitchModulExpansion Sealed pg	B12451-SME-001-E33T	Expansion Switch module Sealed with mit TOP palm guard for Right rocker with LIN Interface, IP68, 500 000 Cycles, -40..+85°C, 9..32 V DC - one SwitchModulMaster required -
SwitchModulExpansion Sealed pg	B12451-SME-001-E33B	Expansion Switch module Sealed with BOTTOM palm guard for Right rocker with LIN Interface, IP68, 500 000 Cycles, -40..+85°C, 9 .. 32 V DC - one SwitchModulMaster required -
SwitchModulRocker Sealed	B12452-SMR-001-E33F	rocker (Rocker) for SwitchModulMaster Sealed and SwitchModulExpansion Sealed
SwitchModulRocker Sealed ht up	B12452-SMR-002-E33U	rocker (Rocker) half Operation UP for SwitchModulMaster Sealed and SwitchModulExpansion Sealed
SwitchModulRocker Sealed ht down	B12452-SMR-003-E33D	rocker (Rocker) half Operation DOWN for SwitchModulMaster Sealed and SwitchModulExpansion Sealed
SwitchModulRocker Sealed indicator	B12452-SMR-004-E33B	rocker (Rocker) without Operating for SwitchModulMaster Sealed and SwitchModulExpansion Sealed
SwitchModulRocker Sealed red	B12452-SMR-005-E33F	rocker red (Rocker) for SwitchModulMaster Sealed and SwitchModulExpansion Sealed
SwitchModulRocker Sealed red ht up	B12452-SMR-006-E33U	rocker red (Rocker) half Operation UP for SwitchModulMaster Sealed and SwitchModulExpansion Sealed
SwitchModulRocker Sealed red ht down	B12452-SMR-007-E33B	rocker red (Rocker) half Operation DOWN for SwitchModulMaster Sealed and SwitchModulExpansion Sealed
SwitchModulRocker Sealed pg	B12452-SMR-001-E33G	rocker (Rocker) for palm gard for SwitchModulMaster Sealed and SwitchModulExpansion Sealed
SwitchModulSubactuator Sealed -/R/R	B12453-SMS-000-4079	None - Momentary - Momentary (Down-Middle-UP)
SwitchModulSubactuator Sealed -/R/T	B12453-SMS-002-4079	None - Momentary - Sustain (Down-Middle-UP)
SwitchModulSubactuator Sealed R/R/R	B12453-SMS-003-4079	Momentary - Momentary - Momentary (Down-Middle-UP)
SwitchModulSubactuator Sealed T/R/T	B12453-SMS-004-4079	Sustain - Momentary - Sustain (Down-Middle-UP)
SwitchModulSubactuator Sealed R/R/T	B12453-SMS-005-4079	Momentary - Momentary - Sustain (Down-Middle-UP)
SwitchModulSubactuator Sealed R/-/R	B12453-SMS-006-4079	Momentary - not - Momentary (Down-Middle-UP) / Required for locking
SwitchModulSubactuator Sealed R/-/T	B12453-SMS-007-4079	Momentary - not - Sustain (Down-Middle-UP)
SwitchModulSubactuator Sealed R/R/-	B12453-SMS-008-4079	Momentary - Momentary - None (Down-Middle-UP)
SwitchModulSubactuator Sealed T/R/-	B12453-SMS-009-4079	Sustain - Momentary - None (Down-Middle-UP)
SwitchModulSubactuator Sealed T/R/R	B12453-SMS-010-4079	Sustain - Momentary - Momentary (Down-Middle-UP)
SwitchModulSubactuator Sealed T/-/R	B12453-SMS-011-4079	Sustain - not - Momentary (Down-Middle-UP)

Alle Daten bei 25°C Umgebungstemperatur, falls nicht anders angegeben. / All data at nominal input and 25° C ambient temperature, if not marked otherwise. • Alle Daten dienen nur Informationszwecken und sind nicht als zugesicherte Eigenschaften aufzufassen. / All data for information purposes only, no assured characteristics. • Technische Änderungen ohne vorherige Ankündigung sowie Irrtümer vorbehalten. / Technical modifications without notice and errors reserved. • Belastung mit Extremwerten über einen längeren Zeitraum kann die Zuverlässigkeit beeinflussen. / Strain with extreme values for a longer period may affect the reliability. • Alle Trademarks und Logos sind Eigentum der jeweiligen Unternehmen. / All trademarks and logos are property of the concerning companies. © b-plus GmbH • Jul-14 • V1.2