
SAFETY PRODUCTS

JSHD2C Enabling Switch

Data sheet



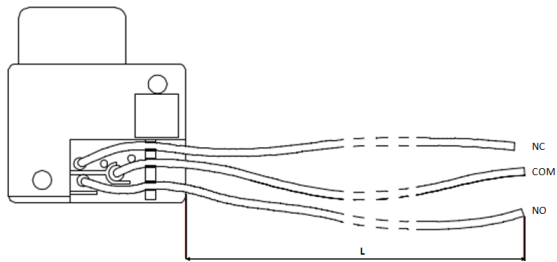
JSHD2C is a three-position pushbutton. Two pushbuttons are usually used to create two channels in an enabling device.

Function

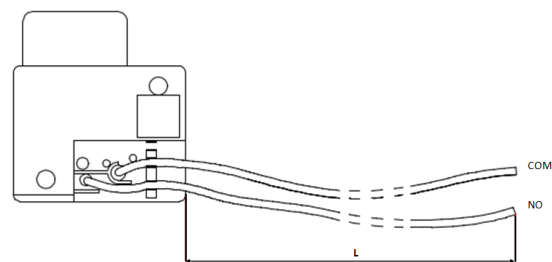
1. Button released, i.e. not pushed: the NO contact is open, the NC contact is closed.
2. Button pushed to the middle position: the NO contact is closed, the NC contact is open.
3. Button pushed to its end point: the NO contact is open, the NC contact is closed.
When released, the contacts go back to position 1, released, without passing position 2.

Connection

Type A, Type E, Type F



Type K

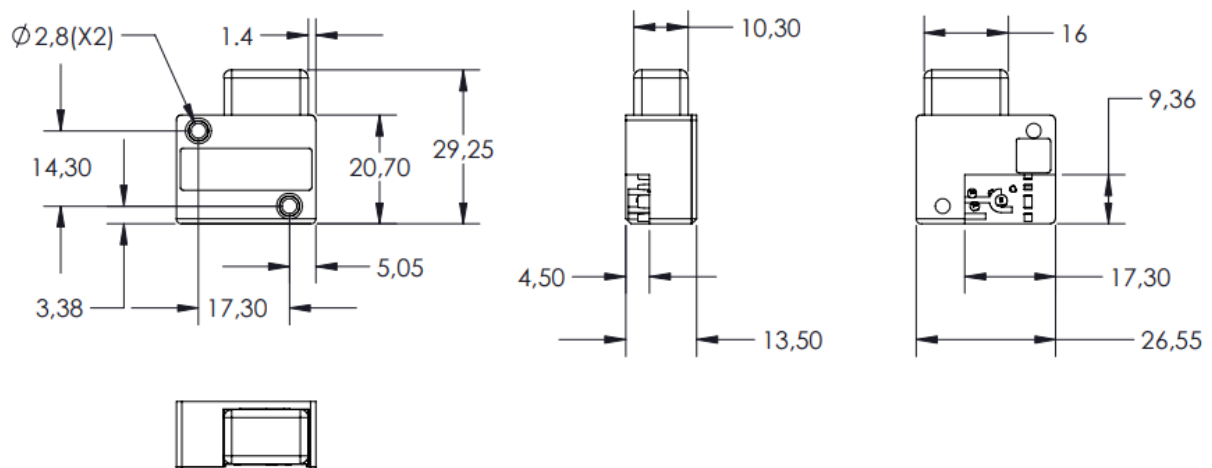


Type A & E: L= 190 mm
Type F: L = 1250 mm

Type K: L = 290 mm

COM = Yellow
NO = Orange
NC = Gray

Dimensions



Models in the scope of this document

Please see <https://new.abb.com/low-voltage/products/safety-products> and/or the ABB safety products catalog for availability.

Type	Order code	Connection	Microswitch type
JSHD2C type A Enabling Switch	2TLA020001R1100	3 leads 190 mm	Gold-plated
JSHD2C type E Enabling Switch	2TLA020001R1000	3 leads 190 mm	Gold-plated
JSHD2C type F Enabling Switch	2TLA020001R1400	3 leads 1250 mm	Gold-plated
JSHD2C type K Enabling Switch	2TLA020001R1300	2 leads 290 mm	Silver-plated

Note:

- Gold-plated microswitches are intended for use in signal circuits where the power being switched is at the milliwatt level.
- Silver-plated microswitches are intended for use in signal circuits where the power being switched is higher than allowed for gold-plated switches.

Technical data

Manufacturer	
Address	ABB Electrification Sweden AB SE-721 61 Västerås Sweden
Electrical data	
Type of microswitch	
Type A, Type E, Type F:	Gold-plated
Type K:	Silver-plated
Nominal voltage	24 V DC \pm 10%
Maximum rated voltage / current	30 VDC / 20 mA
Minimum rated voltage / current	10 VDC/ 8 mA
Insulation resistance	20 M Ω min.
Contact resistance	25 M Ω max.
Connection	For number and length of leads, see "Model overview"
Leads:	Section: 0.22 mm ² (7x0.20mm), tinned copper. AWG 24
Insulation:	0.25 mm PVC (UL 1061)
Mechanical data	
Actuator force	
Top to middle position - all types:	1.8 N (-0.3 /+0.5 N),
Middle to bottom position - Type E, K, F:	20 N (-3 /+4 N),
Middle to bottom position - Type A:	17 N (-3/+4 N), 150 N maximum before destruction
Actuator stroke	
Top to middle position:	2.5 -0.6 /+1.5 mm,
Top to bottom position:	4.9 -0.6 /+0.2 mm,
Mechanical service life	
Top to middle position:	10 ⁶ cycles
Middle to bottom position:	10 ⁵ cycles
Dimensions	See drawing
Material	Housing: POM (polyoxymethylene) 20% GF (yellow) Plunger: PBT (black)
Environmental data	
Enclosure protection class	IP54
Ambient temperature	-10 ... 55 °C
Humidity	R _H 80% max.

Safety / Harmonized Standards	
Conformity, EU	2006/42/EC – Machines 2014/30/EU – EMC 2011/65/EU – RoHS II + 2015/863
Used harmonized standards	EN ISO 12100-1:2010, EN ISO 13849-1:2015, EN 60204-1:2018, EN 61000-6-2:2005, EN 61000-6-3:2007
EN ISO 13849-1:2015	B _{10d} : 2 000 000 (to midpoint) B _{10d} : 968 000 (to end point)
Certifications	Kiwa, UL Recognized
Information for use in UK	
Importer address	ABB Ltd Tower Court, Coutaulds Way Foleshill Enterprise Park, Coventry CV6 5NX, United Kingdom
Conformity, UK	2008 No 1597 – Supply of Machinery (Safety) Regulations (MD) 2012 No 3032 – Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations (RoHS)
Information for use in USA/Canada (UL)	
Applications	NFPA 79
Electrical supply	Class 2 power source only
Overall current consumption	20 mA max
Enclosure	Type 1

EC Declaration of conformity

UK Declaration of conformity

Note

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

<https://new.abb.com/low-voltage/products/safety-products>