Заказ Минск тел.+375 29 7584780 мтс email minsk17@tut.by www.fotorele.net
радиодетали, электронные компоненты, каталог, описание, технические, характеристики,
datasheet, параметры, маркировка, габариты, фото, аналог, замена,

Crouzet

■ Timing applications

■ Valves

■ HVAC

Microswitches

miniature

V3D

CST
CUSTOM SENSORS & TECHNOLOGIES

Crouzet

Presentation

- Adaptation p. 3
- Customisation is our business p. 4
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Type your text

*Crouzet has been a recognised supplier of quality position sensors, micro-switches and limit switches for more than 30 years. Today, **Crouzet** offers you a new range of micro-switches designed to fulfill the toughest of OEMs' requirements.*

To suit your design requirements, Crouzet continues to develop its capabilities as a specialist in customisation, offering you solutions specifically adapted to all your applications. Because our top most priority is nothing be left to chance, our quality and environmental management systems are certified to ISO 9001 and ISO 14001.

About Custom Sensors & Technologies

Headquartered in Moorpark, CA - Custom Sensors & Technologies (CST) is comprised of industry-leading brands including Crouzet, Kavlico, Crydom, and former divisions of BEI Technologies – Newall and Systron Donner. CST provides sensors, controls, and actuation products for the Transportation, Industrial and Aerospace & Defense markets.

Crouzet
Adaptation

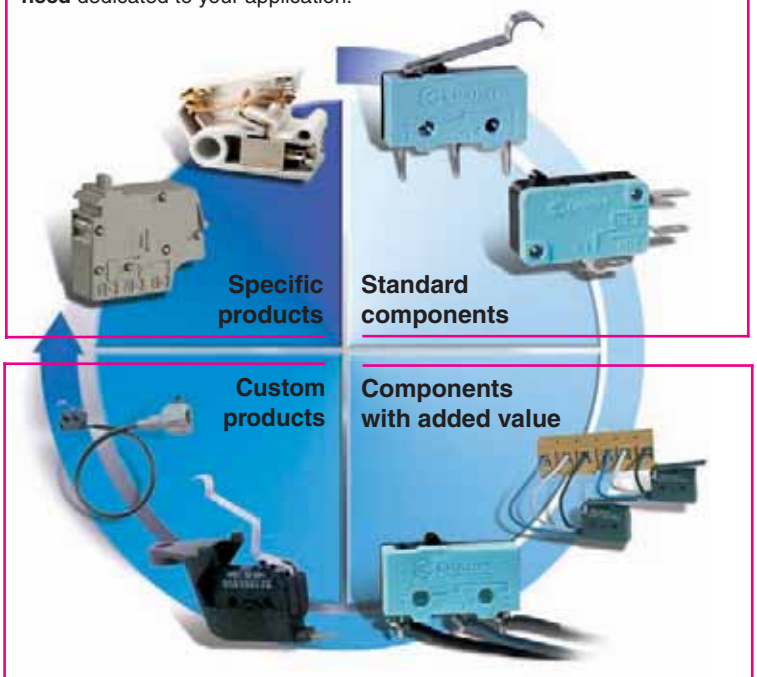
To meet the growing demand for customisation, Crouzet's expertise in terms of adapting products and their corresponding accessories is available to all customers.

Crouzet can customise its products for use in any type of environment or application to ensure perfect integration into any equipment.

Because quality is at the heart of our approach, our quality control and environmental management system are certified to ISO 9001 and ISO 14001 respectively.

■ All our expertise in sensing design and industrialisation placed at your service, to respond to a **specific need** dedicated to your application.

■ A complete range of **standard microswitches** available immediately to create your sensing application.



■ Defined in coordination with our technical sales teams, these **custom products** have the corresponding performance and functionality.

■ Standard products complemented by **factory-mounted auxiliaries or accessories** (levers, cables, connectors, etc) in order to assist integration in your equipment, simplify your logistics and maximise the reliability of your installation.

Crouzet
Process

■ Customer needs

■ R&D department

■ Production

■ Quality

Crouzet

Customisation is our business

☐ Control devices

Even more adaptation for easier actuating

Special button shapes which compensate for any faults or positioning drift of the control actuator.

☐ Connections

A complete electrical function

Special connectors, customised wiring, customer bundles, dedicated terminals…

☐ Seals

Even more solutions for demanding environments

Numerous components available to provide effective protection for your contacts, including caps, boot seals, membranes, sealing resin, wiper seals.

☐ Special levers

Obtain the control data

Angled, curved, extended or retractable... these special lever types can be used to extend the control device for easier adjustment, increase the operating force, resist high actuation torque or provide totally safe electrical isolation.

☐ Special contacts

The right contact for every environment

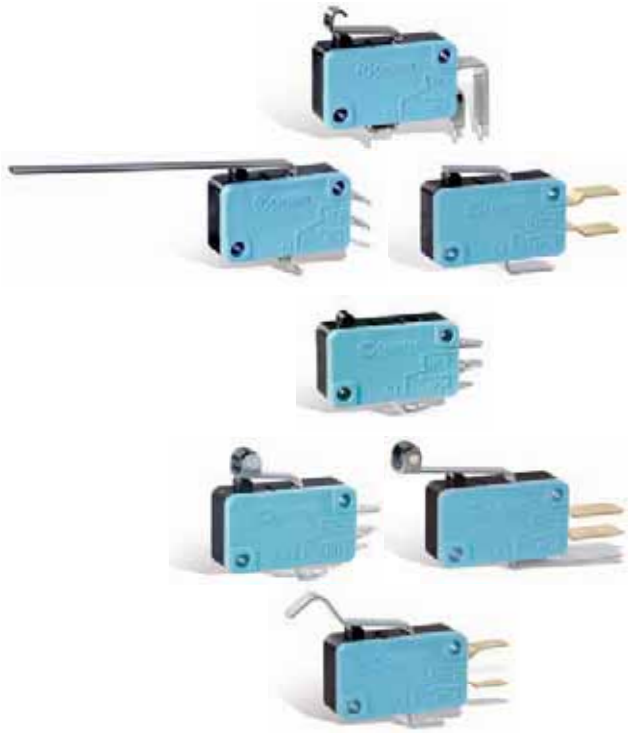
High or low current, AC or DC, type of load (inductive or resistive), industrial or corrosive atmosphere, occasional or intensive use. The best metals, silver, silver nickel, silver palladium, gold-plated silver, solid gold.

☐ Special fixings

No effort is spared to make mounting easier

Snap-on fixing, screw-fixing, crimping or pins are just a few examples of the numerous solutions available to meet all your requirements.

V3D Advantages



- Wide range of switching ratings from 0.1 A to 21 A
- V3 standard size
- Approved to ENEC (EN 61058-1) and UL/CSA
- Compliant to RoHS
- Glow wire test withstanding to EN 60335-1: GWFI 850°C and GWIT 775°C
- Various applications areas: Industry, Consumer equipment, Home appliances, HVAC, …
- A high capacity to adapt levers, connections, fixing elements, upon request

Ordering Information

Model Number Legend

8	3	2	6	X	X	X	X
				1	2	3	4

1 - Ratings / Operating force max

- 1: 16 A / 2 N
- 2: 20 A / 2 N
- 3: 16 A / 1 N
- 4: 12 A / 0.5 N
- 5: 5 A / 0.25 N
- 8: 0.05 A / 1 N
- 9: 0.05 A / 0.25 N

2 - Functions

- 0: Changeover
- 6: Normally closed
- 8: Normally open

3 - Connections

- 0: W1 screws
- 1: W2 solder
- 2: W3 for 6.35 mm clips
- 3: W3R5 for Rast 5 connector
- 4: W6A5 for 4.8 x 0.5 mm clips
- 5: W6D8 for 4.8 x 0.8 mm clips
- 6: W7A5 for 2.8 x 0.5mm clips
- 7: X2 rear side for PCB
- 8: X3 front side for PCB
- 9: X1 straight for PCB

W3R2.5 for Rast 2.5 connector (SP9307): Contact us

4 - Actuators

- 1: Plunger
- 2: Lever 260A R14.2
- 3: Lever 260A R25.4
- 4: Lever 260A R40
- 5: Lever 260A R60
- 6: Lever 260F R22.2
- 7: Lever 260E R13.7
- 8: Lever 260E R24.3
- 9: Lever 260G R13.8

Basic technical principles

- See our Position Sensors Catalogue

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радиодетали, электронные компоненты, каталог, описание, технические, характеристики, datasheet, параметры, маркировка, габариты, фото, аналог, замена,

Microswitches miniature **V3D**

- Nominal ratings from 0.1 A to 21 A
- Operating temperature up to + 150°C
- Approved to ENEC and UL/CSA
- Large choice of actuators

Main specifications

Function	Connections	83261	83262	83263	83264
I (changeover)	W1 - W2 - W3 - W3R5 - W6A5 W6D8 - W7A5 - X1 - X2 - X3	●	●	●	●
R (normally closed)	W1 - W2 - W3 - W3R5 - W6A5 W6D8 - W7A5	●	●	●	●
C (normally open)	W1 - W2 - W3 - W3R5 - W6A5 W6D8 - W7A5	●	●	●	●
Electrical characteristics					
Rating nominal / 250 V AC (A)		16	20	16	12
Rating thermal / 250 V AC (A)		20	25	20	15
Rating nominal / 5 → 24 V AC/DC (A)		-	-	-	-
Mechanical characteristics					
Maximum operating force (N)		2	2	1	0.5
Min. Release force (N)		0.5	0.5	0.2	0.1
Maximum total travel force (N)		3	3	1.5	0.8
Max. permitted overtravel force (N)		20	20	20	20
Maximum rest position (mm)		16.2	16.2	16.2	16.2
Tripping point (mm)		$14.7^{\pm 0.5}$	$14.7^{\pm 0.5}$	$14.7^{\pm 0.5}$	$14.7^{\pm 0.5}$
Maximum differential travel (mm)		0.40	0.40	0.40	0.40
Min. overtravel (mm)		1.1	1.1	1.1	1.1
Ambient operating temperature (°C)		-20 → +125	-20 → +125	-20 → +125	-20 → +125
Mechanical life for 2/3 OT (operations)		1 000 000	1 000 000	1 000 000	1 000 000
Contact gap (mm)		0.6	0.6	0.6	0.6
Weight (g)		6	6	6	6
Approvals					
EN 61058-1	Rating for T125°C ** T150°C *** T85°C	16 (4) A 250 V AC	20 (8) A 250 V AC	16 (4) A 250 V AC	***12 (6) A 250 V AC
	Number of cycles	50 000	10 000	50 000	50 000
UL 1054	Rating	16 A 125 / 250 V AC	21 A 125 / 250 V AC 1/2 HP 125 V AC 1 HP 250 V AC	16 A 125 / 250 V AC	8 A 1/4 HP 125 / 250 V AC
	Number of cycles	6 000	6 000	6 000	6 000

Additional specifications

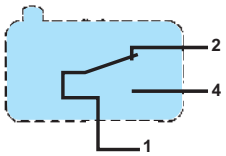
Component Materials

- Housing/cover/button: polyester UL 94V0 - GWIT 775°C / GWFI 850°C
- Blade/spring: copper alloy
- Contacts: silver alloy or gold plated
- Terminals: brass or silver plated brass
- Actuators: stainless steel, glass filled polyamide roller

83265	83268	83269
●	●	●
●	●	●
●	●	●
5	-	-
7.5	-	-
-	0.001 → 0.05	0.001 → 0.05
0.25	1	0.25
0.05	0.2	0.05
0.4	1.5	0.4
20	20	20
16.2	16.2	16.2
$14.7^{\pm 0.5}$	$14.7^{\pm 0.5}$	$14.7^{\pm 0.5}$
0.40	0.40	0.40
1.1	1.1	1.1
-20 → +125	-20 → +150	-20 → +150
1 000 000	1 000 000	1 000 000
0.6	0.6	0.6
6	6	6
** 5 (1) A 250 V AC	** 0.1 (0.04) A 250 V AC	** 0.1 (0.04) A 250 V AC
50 000	50 000	50 000
5 A 1/10 HP 125 / 250 V AC	0.1 A 125 V AC 0.1 A 30 V DC	0.1 A 125 V AC 0.1 A 30 V DC
6 000	6 000	6 000

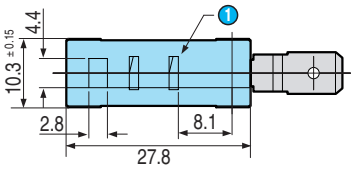
Principle

Single break changeover switch

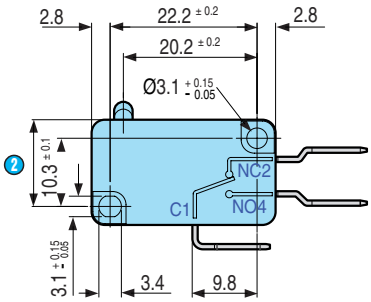


Dimensions (mm)

V3D



1 lever fixing position B



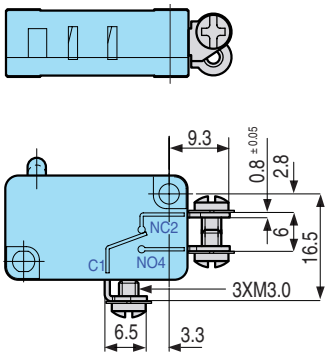
2 Total Travel Position 13.2 max

Product adaptations

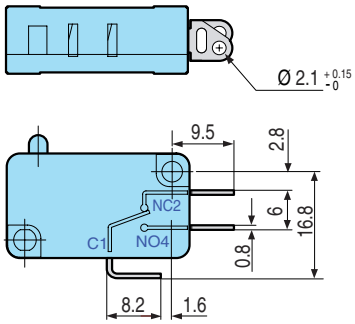
- **Rast 2.5 connection (SP9307): see Connections**
- **Other specific connections**
- **Specific levers**
- **Specific contacts**
- **Specific fixing**
- **High operating temperature**

Connections

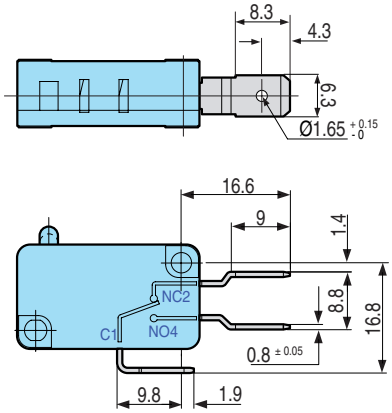
W1



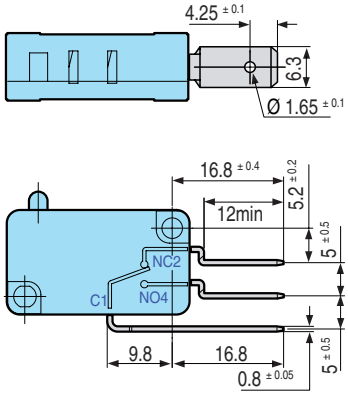
W2



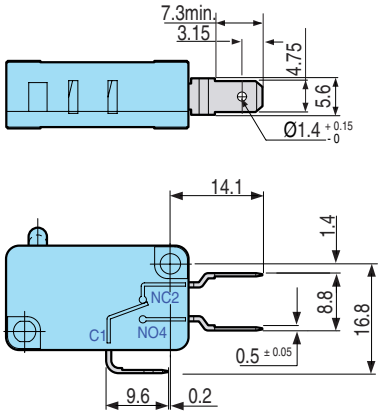
W3



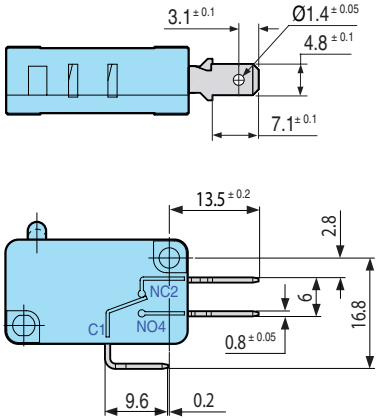
W3R5



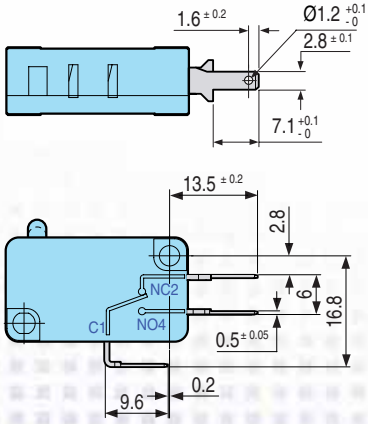
W6A5



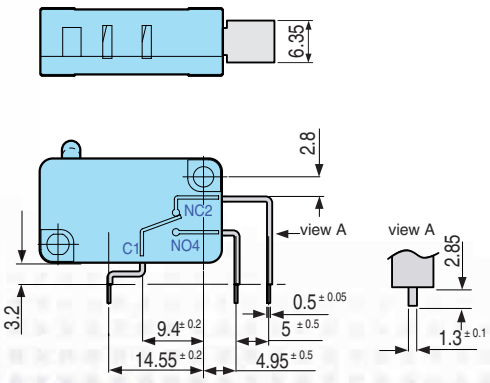
W6D8



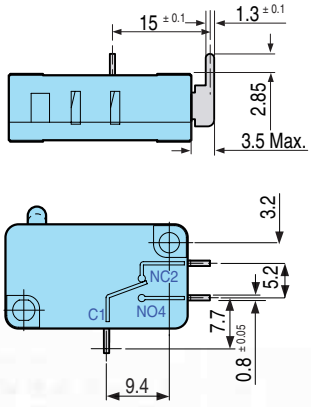
W7A5



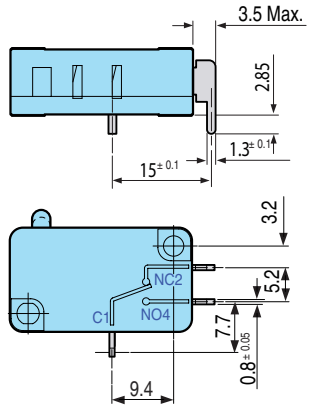
X1



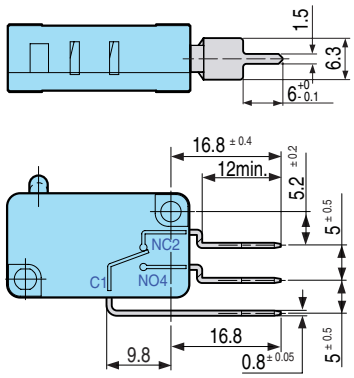
X2



X3



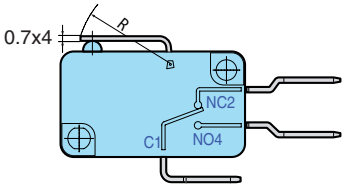
W3R2.5 (SP9307)



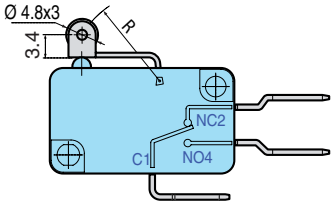
Contact us

Actuators

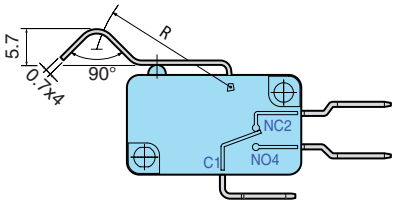
260 A



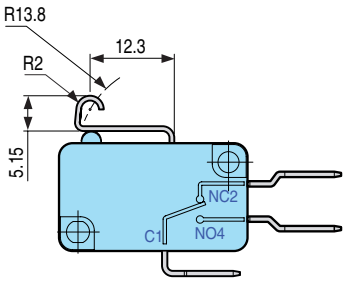
260 E



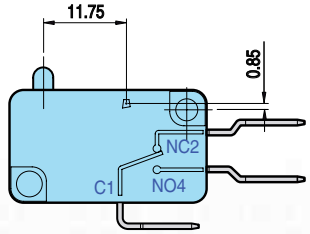
260 F



260 G

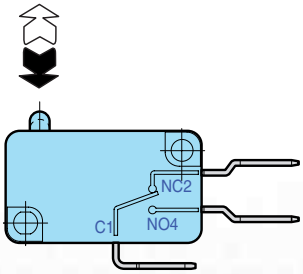


Actuator mounting position



Mounting - Operation

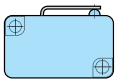
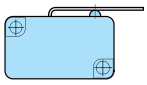
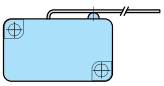
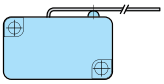
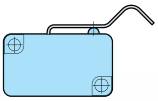
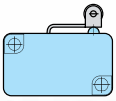
To conform to the leakage paths and air gaps required in the standard EN/IEC 61058-1 - EN/IEC 60947-5-1:

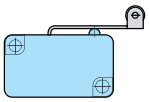
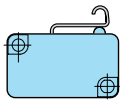


- An insulation pad must be inserted between the microswitch and the fixing surface if the fixing surface is metal.
- Manual operation of a metal actuator must only be carried out with the help of a secondary actuator made of insulating material. The installer must ensure adequate protection against direct contact with the output terminals.

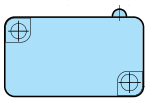
Microswitches miniature **V3D**

Mechanical characteristics with actuators

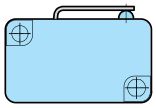
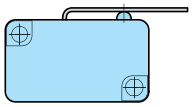
		Length of actuator (mm)	Maximum operating force (N)	Minimum release force (N)	Tripping point (mm)	Minimum overtravel (mm)	Maximum differential travel (mm)	Maximum total travel (mm)
 Lever 260A R14.2 Pos B	83261	14.2	2	0.5	$15.4^{\pm 0.5}$	1.1	0.4	3
	83262	14.2	2	0.5	$15.4^{\pm 0.5}$	1.1	0.4	3
	83263	14.2	1	0.2	$15.4^{\pm 0.5}$	1.1	0.4	3
	83264	14.2	0.5	0.1	$15.4^{\pm 0.5}$	1.1	0.4	3
	83265	14.2	0.25	0.05	$15.4^{\pm 0.5}$	1.1	0.4	3
	83268	14.2	1	0.2	$15.4^{\pm 0.5}$	1.1	0.4	3
	83269	14.2	0.25	0.05	$15.4^{\pm 0.5}$	1.1	0.4	3
 Lever 260A R25.4 Pos B	83261	25.4	1	0.25	$15.4^{\pm 1}$	2	0.8	5.8
	83262	25.4	1	0.25	$15.4^{\pm 1}$	2	0.8	5.8
	83263	25.4	0.5	0.1	$15.4^{\pm 1}$	2	0.8	5.8
	83264	25.4	0.25	0.05	$15.4^{\pm 1}$	2	0.8	5.8
	83265	25.4	0.13	0.02	$15.4^{\pm 1}$	2	0.8	5.8
	83268	25.4	0.5	0.1	$15.4^{\pm 1}$	2	0.8	5.8
	83269	25.4	0.13	0.02	$15.4^{\pm 1}$	2	0.8	5.8
 Lever 260A R40 Pos B	83261	40	0.6	0.15	$15.4^{\pm 1.8}$	3.3	1.3	9.6
	83262	40	0.6	0.15	$15.4^{\pm 1.8}$	3.3	1.3	9.6
	83263	40	0.3	0.06	$15.4^{\pm 1.8}$	3.3	1.3	9.6
	83264	40	0.15	0.03	$15.4^{\pm 1.8}$	3.3	1.3	9.6
	83265	40	0.08	0.01	$15.4^{\pm 1.8}$	3.3	1.3	9.6
	83268	40	0.3	0.06	$15.4^{\pm 1.8}$	3.3	1.3	9.6
	83269	40	0.08	0.01	$15.4^{\pm 1.8}$	3.3	1.3	9.6
 Lever 260A R60 Pos B	83261	60	0.4	0.1	$15.4^{\pm 2.5}$	5	2	14.5
	83262	60	0.4	0.1	$15.4^{\pm 2.5}$	5	2	14.5
	83263	60	0.2	0.04	$15.4^{\pm 2.5}$	5	2	14.5
	83264	60	0.1	0.02	$15.4^{\pm 2.5}$	5	2	14.5
	83265	60	0.05	0.01	$15.4^{\pm 2.5}$	5	2	14.5
	83268	60	0.2	0.04	$15.4^{\pm 2.5}$	5	2	14.5
	83269	60	0.05	0.01	$15.4^{\pm 1}$	5	2	14.5
 Lever 260F R22.2 Pos B	83261	22.2	1.06	0.26	$20.4^{\pm 1}$	1.8	0.75	5.2
	83262	22.2	1.06	0.26	$20.4^{\pm 1}$	1.8	0.75	5.2
	83263	22.2	0.53	0.1	$20.4^{\pm 1}$	1.8	0.75	5.2
	83264	22.2	0.27	0.05	$20.4^{\pm 1}$	1.8	0.75	5.2
	83265	22.2	0.13	0.02	$20.4^{\pm 1}$	1.8	0.75	5.2
	83268	22.2	0.53	0.1	$20.4^{\pm 1}$	1.8	0.75	5.2
	83269	22.2	0.13	0.02	$20.4^{\pm 1}$	1.8	0.75	5.2
 Lever 260E R13.7 Pos B	83261	13.7	2	0.5	$20.5^{\pm 0.8}$	1.1	0.4	3
	83262	13.7	2	0.5	$20.5^{\pm 0.8}$	1.1	0.4	3
	83263	13.7	1	0.2	$20.5^{\pm 0.8}$	1.1	0.4	3
	83264	13.7	0.5	0.1	$20.5^{\pm 0.8}$	1.1	0.4	3
	83265	13.7	0.25	0.05	$20.5^{\pm 0.8}$	1.1	0.4	3
	83268	13.7	1	0.2	$20.5^{\pm 0.8}$	1.1	0.4	3
	83269	13.7	0.25	0.05	$20.5^{\pm 0.8}$	1.1	0.4	3

		Length of actuator (mm)	Maximum operating force (N)	Minimum release force (N)	Tripping point (mm)	Minimum overtravel (mm)	Maximum differential travel (mm)	Maximum total travel (mm)
 Lever 260E R24.3 Pos B	83261	24.3	1	0.25	$20.5^{\pm 1.5}$	2	0.8	5.8
	83262	24.3	1	0.25	$20.5^{\pm 1.5}$	2	0.8	5.8
	83263	24.3	0.5	0.1	$20.5^{\pm 1.5}$	2	0.8	5.8
	83264	24.3	0.25	0.05	$20.5^{\pm 1.5}$	2	0.8	5.8
	83265	24.3	0.13	0.02	$20.5^{\pm 1.5}$	2	0.8	5.8
	83268	24.3	0.5	0.1	$20.5^{\pm 1.5}$	2	0.8	5.8
	83269	24.3	0.13	0.02	$20.5^{\pm 1.5}$	2	0.8	5.8
 Lever 260G R13.8 Pos B	83261	13.8	2	0.5	$19.9^{\pm 0.7}$	1.1	0.4	3
	83262	13.8	2	0.5	$19.9^{\pm 0.7}$	1.1	0.4	3
	83263	13.8	1	0.2	$19.9^{\pm 0.7}$	1.1	0.4	3
	83264	13.8	0.5	0.1	$19.9^{\pm 0.7}$	1.1	0.4	3
	83265	13.8	0.25	0.05	$19.9^{\pm 0.7}$	1.1	0.4	3
	83268	13.8	1	0.2	$19.9^{\pm 0.7}$	1.1	0.4	3
	83269	13.8	0.25	0.05	$19.9^{\pm 0.7}$	1.1	0.4	3

Selection guide

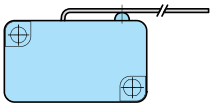
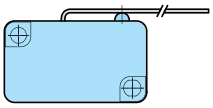
	Rating / Force		16 A / 2 N	20 A / 2 N	16 A / 1 N	12 A / 0.5 N	5 A / 0.25 N	0.05 A / 1 N	0.05 A / 0.25 N
	Type		83261	83262	83263	83264	83265	83268	83269
Actuators	**Function**	**Connection**							
 Plunger	I	W1	83261001	83262001	83263001	83264001	83265001	83268001	83269001
	I	W2	83261011	83262011	83263011	83264011	83265011	83268011	83269011
	I	W3	83261021	83262021	83263021	83264021	83265021	83268021	83269021
	I	W3R5	83261031	83262031	83263031	83264031	83265031	83268031	83269031
	I	W6A5	83261041	83262041	83263041	83264041	83265041	83268041	83269041
	I	W6D8	83261051	83262051	83263051	83264051	83265051	83268051	83269051
	I	W7A5	83261061	-	83263061	83264061	83265061	83268061	83269061
	I	X2	83261071	-	83263071	83264071	83265071	83268071	83269071
	I	X3	83261081	-	83263081	83264081	83265081	83268081	83269081
	I	X1	83261091	-	83263091	83264091	83265091	83268091	83269091
	R	W1	83261601	83262601	83263601	83264601	83265601	83268601	83269601
	R	W2	83261611	83262611	83263611	83264611	83265611	83268611	83269611
	R	W3	83261621	83262621	83263621	83264621	83265621	83268621	83269621
	R	W3R5	83261631	83262631	83263631	83264631	83265631	83268631	83269631
	R	W6A5	83261641	83262641	83263641	83264641	83265641	83268641	83269641
	R	W6D8	83261651	83262651	83263651	83264651	83265651	83268651	83269651
	R	W7A5	83261661	-	83263661	83264661	83265661	83268661	83269661
	C	W1	83261801	83262801	83263801	83264801	83265801	83268801	83269801
	C	W2	83261811	83262811	83263811	83264811	83265811	83268811	83269811
	C	W3	83261821	83262821	83263821	83264821	83265821	83268821	83269821
	C	W3R5	83261831	83262831	83263831	83264831	83265831	83268831	83269831
	C	W6A5	83261841	83262841	83263841	83264841	83265841	83268841	83269841
	C	W6D8	83261851	83262851	83263851	83264851	83265851	83268851	83269851
	C	W7A5	83261861	-	83263861	83264861	83265861	83268861	83269861

Microswitches miniature V3D

	Rating / Force		16 A / 2 N	20 A / 2 N	16 A / 1 N	12 A / 0.5 N	5 A / 0.25 N	0.05 A / 1 N	0.05 A / 0.25 N
	Type		83261	83262	83263	83264	83265	83268	83269
Actuators	**Function**	**Connection**							
 Lever 260A R14.2 Pos B	I	W1	83261002	83262002	83263002	83264002	83265002	83268002	83269002
	I	W2	83261012	83262012	83263012	83264012	83265012	83268012	83269012
	I	W3	83261022	83262022	83263022	83264022	83265022	83268022	83269022
	I	W3R5	83261032	83262032	83263032	83264032	83265032	83268032	83269032
	I	W6A5	83261042	83262042	83263042	83264042	83265042	83268042	83269042
	I	W6D8	83261052	83262052	83263052	83264052	83265052	83268052	83269052
	I	W7A5	83261062	-	83263062	83264062	83265062	83268062	83269062
	I	X2	83261072	-	83263072	83264072	83265072	83268072	83269072
	I	X3	83261082	-	83263082	83264082	83265082	83268082	83269082
	I	X1	83261092	-	83263092	83264092	83265092	83268092	83269092
	R	W1	83261602	83262602	83263602	83264602	83265602	83268602	83269602
	R	W2	83261612	83262612	83263612	83264612	83265612	83268612	83269612
	R	W3	83261622	83262622	83263622	83264622	83265622	83268622	83269622
	R	W3R5	83261632	83262632	83263632	83264632	83265632	83268632	83269632
	R	W6A5	83261642	83262642	83263642	83264642	83265642	83268642	83269642
	R	W6D8	83261652	83262652	83263652	83264652	83265652	83268652	83269652
	R	W7A5	83261662	-	83263662	83264662	83265662	83268662	83269662
	C	W1	83261802	83262802	83263802	83264802	83265802	83268802	83269802
	C	W2	83261812	83262812	83263812	83264812	83265812	83268812	83269812
	C	W3	83261822	83262822	83263822	83264822	83265822	83268822	83269822
	C	W3R5	83261832	83262832	83263832	83264832	83265832	83268832	83269832
	C	W6A5	83261842	83262842	83263842	83264842	83265842	83268842	83269842
	C	W6D8	83261852	83262852	83263852	83264852	83265852	83268852	83269852
	C	W7A5	83261862	-	83263862	83264862	83265862	83268862	83269862
 Lever 260A R25.4 Pos B	I	W1	83261003	83262003	83263003	83264003	83265003	83268003	83269003
	I	W2	83261013	83262013	83263013	83264013	83265013	83268013	83269013
	I	W3	83261023	83262023	83263023	83264023	83265023	83268023	83269023
	I	W3R5	83261033	83262033	83263033	83264033	83265033	83268033	83269033
	I	W6A5	83261043	83262043	83263043	83264043	83265043	83268043	83269043
	I	W6D8	83261053	83262053	83263053	83264053	83265053	83268053	83269053
	I	W7A5	83261063	-	83263063	83264063	83265063	83268063	83269063
	I	X2	83261073	-	83263073	83264073	83265073	83268073	83269073
	I	X3	83261083	-	83263083	83264083	83265083	83268083	83269083
	I	X1	83261093	-	83263093	83264093	83265093	83268093	83269093
	R	W1	83261603	83262603	83263603	83264603	83265603	83268603	83269603
	R	W2	83261613	83262613	83263613	83264613	83265613	83268613	83269613
	R	W3	83261623	83262623	83263623	83264623	83265623	83268623	83269623
	R	W3R5	83261633	83262633	83263633	83264633	83265633	83268633	83269633
	R	W6A5	83261643	83262643	83263643	83264643	83265643	83268643	83269643
	R	W6D8	83261653	83262653	83263653	83264653	83265653	83268653	83269653
	R	W7A5	83261663	-	83263663	83264663	83265663	83268663	83269663
	C	W1	83261803	83262803	83263803	83264803	83265803	83268803	83269803
	C	W2	83261813	83262813	83263813	83264813	83265813	83268813	83269813
	C	W3	83261823	83262823	83263823	83264823	83265823	83268823	83269823
	C	W3R5	83261833	83262833	83263833	83264833	83265833	83268833	83269833
	C	W6A5	83261843	83262843	83263843	83264843	83265843	83268843	83269843
	C	W6D8	83261853	83262853	83263853	83264853	83265853	83268853	83269853
	C	W7A5	83261863	-	83263863	83264863	83265863	83268863	83269863

Note:

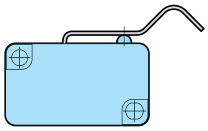
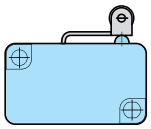
*Function: **I** = Changeover - **R** = Normally closed - **C** = Normally open*
*Connection: **W1** = screws - **W2** = solder - **W3** = for 6.35 mm clips - **W3R5** = for Rast 5 connector*
*__W6A5__ = for 4.8 x 0.5 mm clips - **W6D8** = for 4.8 x 0.8 mm clips - **W7A5** = for 2.8 x 0.5 mm clips*
*__X2__ = rear side for PCB - **X3** = front side for PCB - **X1** = straight for PCB*

	Rating / Force		16 A / 2 N	20 A / 2 N	16 A / 1 N	12 A / 0.5N	5 A / 0.25 N	0.05 A / 1 N	0.05 A / 0.25 N
	Type		83261	83262	83263	83264	83265	83268	83269
Actuators	**Function**	**Connection**							
 Lever 260A R40 Pos B	I	W1	83261004	83262004	83263004	83264004	83265004	83268004	83269004
	I	W2	83261014	83262014	83263014	83264014	83265014	83268014	83269014
	I	W3	83261024	83262024	83263024	83264024	83265024	83268024	83269024
	I	W3R5	83261034	83262034	83263034	83264034	83265034	83268034	83269034
	I	W6A5	83261044	83262044	83263044	83264044	83265044	83268044	83269044
	I	W6D8	83261054	83262054	83263054	83264054	83265054	83268054	83269054
	I	W7A5	83261064	-	83263064	83264064	83265064	83268064	83269064
	I	X2	83261074	-	83263074	83264074	83265074	83268074	83269074
	I	X3	83261084	-	83263084	83264084	83265084	83268084	83269084
	I	X1	83261094	-	83263094	83264094	83265094	83268094	83269094
	R	W1	83261604	83262604	83263604	83264604	83265604	83268604	83269604
	R	W2	83261614	83262614	83263614	83264614	83265614	83268614	83269614
	R	W3	83261624	83262624	83263624	83264624	83265624	83268624	83269624
	R	W3R5	83261634	83262634	83263634	83264634	83265634	83268634	83269634
	R	W6A5	83261644	83262644	83263644	83264644	83265644	83268644	83269644
	R	W6D8	83261654	83262654	83263654	83264654	83265654	83268654	83269654
	R	W7A5	83261664	-	83263664	83264664	83265664	83268664	83269664
	C	W1	83261804	83262804	83263804	83264804	83265804	83268804	83269804
	C	W2	83261814	83262814	83263814	83264814	83265814	83268814	83269814
	C	W3	83261824	83262824	83263824	83264824	83265824	83268824	83269824
	C	W3R5	83261834	83262834	83263834	83264834	83265834	83268834	83269834
	C	W6A5	83261844	83262844	83263844	83264844	83265844	83268844	83269844
	C	W6D8	83261854	83262854	83263854	83264854	83265854	83268854	83269854
	C	W7A5	83261864	-	83263864	83264864	83265864	83268864	83269864
 Lever 260A R60 Pos B	I	W1	83261005	83262005	83263005	83264005	83265005	83268005	83269005
	I	W2	83261015	83262015	83263015	83264015	83265015	83268015	83269015
	I	W3	83261025	83262025	83263025	83264025	83265025	83268025	83269025
	I	W3R5	83261035	83262035	83263035	83264035	83265035	83268035	83269035
	I	W6A5	83261045	83262045	83263045	83264045	83265045	83268045	83269045
	I	W6D8	83261055	83262055	83263055	83264055	83265055	83268055	83269055
	I	W7A5	83261065	-	83263065	83264065	83265065	83268065	83269065
	I	X2	83261075	-	83263075	83264075	83265075	83268075	83269075
	I	X3	83261085	-	83263085	83264085	83265085	83268085	83269085
	I	X1	83261095	-	83263095	83264095	83265095	83268095	83269095
	R	W1	83261605	83262605	83263605	83264605	83265605	83268605	83269605
	R	W2	83261615	83262615	83263615	83264615	83265615	83268615	83269615
	R	W3	83261625	83262625	83263625	83264625	83265625	83268625	83269625
	R	W3R5	83261635	83262635	83263635	83264635	83265635	83268635	83269635
	R	W6A5	83261645	83262645	83263645	83264645	83265645	83268645	83269645
	R	W6D8	83261655	83262655	83263655	83264655	83265655	83268655	83269655
	R	W7A5	83261665	-	83263665	83264665	83265665	83268665	83269665
	C	W1	83261805	83262805	83263805	83264805	83265805	83268805	83269805
	C	W2	83261815	83262815	83263815	83264815	83265815	83268815	83269815
	C	W3	83261825	83262825	83263825	83264825	83265825	83268825	83269825
	C	W3R5	83261835	83262835	83263835	83264835	83265835	83268835	83269835
	C	W6A5	83261845	83262845	83263845	83264845	83265845	83268845	83269845
	C	W6D8	83261855	83262855	83263855	83264855	83265855	83268855	83269855
	C	W7A5	83261865	-	83263865	83264865	83265865	83268865	83269865

Note:

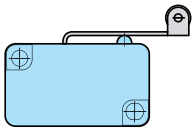
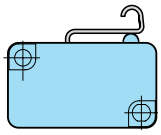
Function: ***I*** *= Changeover -* ***R*** *= Normally closed -* ***C*** *= Normally open*
Connection: ***W1*** *= screws -* ***W2*** *= solder -* ***W3*** *= for 6.35 mm clips -* ***W3R5*** *= for Rast 5 connector*
W6A5 *= for 4.8 x 0.5 mm clips -* ***W6D8*** *= for 4.8 x 0.8 mm clips -* ***W7A5*** *= for 2.8 x 0.5 mm clips*
X2 *= rear side for PCB -* ***X3*** *= front side for PCB -* ***X1*** *= straight for PCB*

Microswitches miniature V3D

		Rating / Force	16 A / 2 N	20 A / 2 N	16 A / 1 N	12 A / 0.5 N	5 A / 0.25 N	0.05 A / 1 N	0.05 A / 0.25 N
		Type	83261	83262	83263	83264	83265	83268	83269
Actuators	**Function**	**Connection**							
 Lever 260F R22.2 Pos B	I	W1	83261006	83262006	83263006	83264006	83265006	83268006	83269006
	I	W2	83261016	83262016	83263016	83264016	83265016	83268016	83269016
	I	W3	83261026	83262026	83263026	83264026	83265026	83268026	83269026
	I	W3R5	83261036	83262036	83263036	83264036	83265036	83268036	83269036
	I	W6A5	83261046	83262046	83263046	83264046	83265046	83268046	83269046
	I	W6D8	83261056	83262056	83263056	83264056	83265056	83268056	83269056
	I	W7A5	83261066	-	83263066	83264066	83265066	83268066	83269066
	I	X2	83261076	-	83263076	83264076	83265076	83268076	83269076
	I	X3	83261086	-	83263086	83264086	83265086	83268086	83269086
	I	X1	83261096	-	83263096	83264096	83265096	83268096	83269096
	R	W1	83261606	83262606	83263606	83264606	83265606	83268606	83269606
	R	W2	83261616	83262616	83263616	83264616	83265616	83268616	83269616
	R	W3	83261626	83262626	83263626	83264626	83265626	83268626	83269626
	R	W3R5	83261636	83262636	83263636	83264636	83265636	83268636	83269636
	R	W6A5	83261646	83262646	83263646	83264646	83265646	83268646	83269646
	R	W6D8	83261656	83262656	83263656	83264656	83265656	83268656	83269656
	R	W7A5	83261666	-	83263666	83264666	83265666	83268666	83269666
	C	W1	83261806	83262806	83263806	83264806	83265806	83268806	83269806
	C	W2	83261816	83262816	83263816	83264816	83265816	83268816	83269816
	C	W3	83261826	83262826	83263826	83264826	83265826	83268826	83269826
	C	W3R5	83261836	83262836	83263836	83264836	83265836	83268836	83269836
	C	W6A5	83261846	83262846	83263846	83264846	83265846	83268846	83269846
	C	W6D8	83261856	83262856	83263856	83264856	83265856	83268856	83269856
	C	W7A5	83261866	-	83263866	83264866	83265866	83268866	83269866
 Lever 260E R13.7 Pos B	I	W1	83261007	83262007	83263007	83264007	83265007	83268007	83269007
	I	W2	83261017	83262017	83263017	83264017	83265017	83268017	83269017
	I	W3	83261027	83262027	83263027	83264027	83265027	83268027	83269027
	I	W3R5	83261037	83262037	83263037	83264037	83265037	83268037	83269037
	I	W6A5	83261047	83262047	83263047	83264047	83265047	83268047	83269047
	I	W6D8	83261057	83262057	83263057	83264057	83265057	83268057	83269057
	I	W7A5	83261067	-	83263067	83264067	83265067	83268067	83269067
	I	X2	83261077	-	83263077	83264077	83265077	83268077	83269077
	I	X3	83261087	-	83263087	83264087	83265087	83268087	83269087
	I	X1	83261097	-	83263097	83264097	83265097	83268097	83269097
	R	W1	83261607	83262607	83263607	83264607	83265607	83268607	83269607
	R	W2	83261617	83262617	83263617	83264617	83265617	83268617	83269617
	R	W3	83261627	83262627	83263627	83264627	83265627	83268627	83269627
	R	W3R5	83261637	83262637	83263637	83264637	83265637	83268637	83269637
	R	W6A5	83261647	83262647	83263647	83264647	83265647	83268647	83269647
	R	W6D8	83261657	83262657	83263657	83264657	83265657	83268657	83269657
	R	W7A5	83261667	-	83263667	83264667	83265667	83268667	83269667
	C	W1	83261807	83262807	83263807	83264807	83265807	83268807	83269807
	C	W2	83261817	83262817	83263817	83264817	83265817	83268817	83269817
	C	W3	83261827	83262827	83263827	83264827	83265827	83268827	83269827
	C	W3R5	83261837	83262837	83263837	83264837	83265837	83268837	83269837
	C	W6A5	83261847	83262847	83263847	83264847	83265847	83268847	83269847
	C	W6D8	83261857	83262857	83263857	83264857	83265857	83268857	83269857
	C	W7A5	83261867	-	83263867	83264867	83265867	83268867	83269867

Note:

*Function: **I** = Changeover - **R** = Normally closed - **C** = Normally open*
*Connection: **W1** = screws - **W2** = solder - **W3** = for 6.35 mm clips - **W3R5** = for Rast 5 connector*
*__W6A5__ = for 4.8 x 0.5 mm clips - **W6D8** = for 4.8 x 0.8 mm clips - **W7A5** = for 2.8 x 0.5 mm clips*
*__X2__ = rear side for PCB - **X3** = front side for PCB - **X1** = straight for PCB*

		Rating / Force	16 A / 2 N	20 A / 2 N	16 A / 1 N	12 A / 0.5 N	5 A / 0.25 N	0.05 A / 1 N	0.05 A / 0.25 N
		Type	83261	83262	83263	83264	83265	83268	83269
Actuators	**Function**	**Connection**							
 Lever 260E R24.3 Pos B	I	W1	83261008	83262008	83263008	83264008	83265008	83268008	83269008
	I	W2	83261018	83262018	83263018	83264018	83265018	83268018	83269018
	I	W3	83261028	83262028	83263028	83264028	83265028	83268028	83269028
	I	W3R5	83261038	83262038	83263038	83264038	83265038	83268038	83269038
	I	W6A5	83261048	83262048	83263048	83264048	83265048	83268048	83269048
	I	W6D8	83261058	83262058	83263058	83264058	83265058	83268058	83269058
	I	W7A5	83261068	-	83263068	83264068	83265068	83268068	83269068
	I	X2	83261078	-	83263078	83264078	83265078	83268078	83269078
	I	X3	83261088	-	83263088	83264088	83265088	83268088	83269088
	I	X1	83261098	-	83263098	83264098	83265098	83268098	83269098
	R	W1	83261608	83262608	83263608	83264608	83265608	83268608	83269608
	R	W2	83261618	83262618	83263618	83264618	83265618	83268618	83269618
	R	W3	83261628	83262628	83263628	83264628	83265628	83268628	83269628
	R	W3R5	83261638	83262638	83263638	83264638	83265638	83268638	83269638
	R	W6A5	83261648	83262648	83263648	83264648	83265648	83268648	83269648
	R	W6D8	83261658	83262658	83263658	83264658	83265658	83268658	83269658
	R	W7A5	83261668	-	83263668	83264668	83265668	83268668	83269668
	C	W1	83261808	83262808	83263808	83264808	83265808	83268808	83269808
	C	W2	83261818	83262818	83263818	83264818	83265818	83268818	83269818
	C	W3	83261828	83262828	83263828	83264828	83265828	83268828	83269828
	C	W3R5	83261838	83262838	83263838	83264838	83265838	83268838	83269838
	C	W6A5	83261848	83262848	83263848	83264848	83265848	83268848	83269848
	C	W6D8	83261858	83262858	83263858	83264858	83265858	83268858	83269858
	C	W7A5	83261868	-	83263868	83264868	83265868	83268868	83269868
 Lever 260G R13.8 Pos B	I	W1	83261009	83262009	83263009	83264009	83265009	83268009	83269009
	I	W2	83261019	83262019	83263019	83264019	83265019	83268019	83269019
	I	W3	83261029	83262029	83263029	83264029	83265029	83268029	83269029
	I	W3R5	83261039	83262039	83263039	83264039	83265039	83268039	83269039
	I	W6A5	83261049	83262049	83263049	83264049	83265049	83268049	83269049
	I	W6D8	83261059	83262059	83263059	83264059	83265059	83268059	83269059
	I	W7A5	83261069	-	83263069	83264069	83265069	83268069	83269069
	I	X2	83261079	-	83263079	83264079	83265079	83268079	83269079
	I	X3	83261089	-	83263089	83264089	83265089	83268089	83269089
	I	X1	83261099	-	83263099	83264099	83265099	83268099	83269099
	R	W1	83261609	83262609	83263609	83264609	83265609	83268609	83269609
	R	W2	83261619	83262619	83263619	83264619	83265619	83268619	83269619
	R	W3	83261629	83262629	83263629	83264629	83265629	83268629	83269629
	R	W3R5	83261639	83262639	83263639	83264639	83265639	83268639	83269639
	R	W6A5	83261649	83262649	83263649	83264649	83265649	83268649	83269649
	R	W6D8	83261659	83262659	83263659	83264659	83265659	83268659	83269659
	R	W7A5	83261669	-	83263669	83264669	83265669	83268669	83269669
	C	W1	83261809	83262809	83263809	83264809	83265809	83268809	83269809
	C	W2	83261819	83262819	83263819	83264819	83265819	83268819	83269819
	C	W3	83261829	83262829	83263829	83264829	83265829	83268829	83269829
	C	W3R5	83261839	83262839	83263839	83264839	83265839	83268839	83269839
	C	W6A5	83261849	83262849	83263849	83264849	83265849	83268849	83269849
	C	W6D8	83261859	83262859	83263859	83264859	83265859	83268859	83269859
	C	W7A5	83261869	-	83263869	83264869	83265869	83268869	83269869

Note:

*Function: **I** = Changeover - **R** = Normally closed - **C** = Normally open*
*Connection: **W1** = screws - **W2** = solder - **W3** = for 6.35 mm clips - **W3R5** = for Rast 5 connector*
*__W6A5__ = for 4.8 x 0.5 mm clips - **W6D8** = for 4.8 x 0.8 mm clips - **W7A5** = for 2.8 x 0.5 mm clips*
*__X2__ = rear side for PCB - **X3** = front side for PCB - **X1** = straight for PCB*

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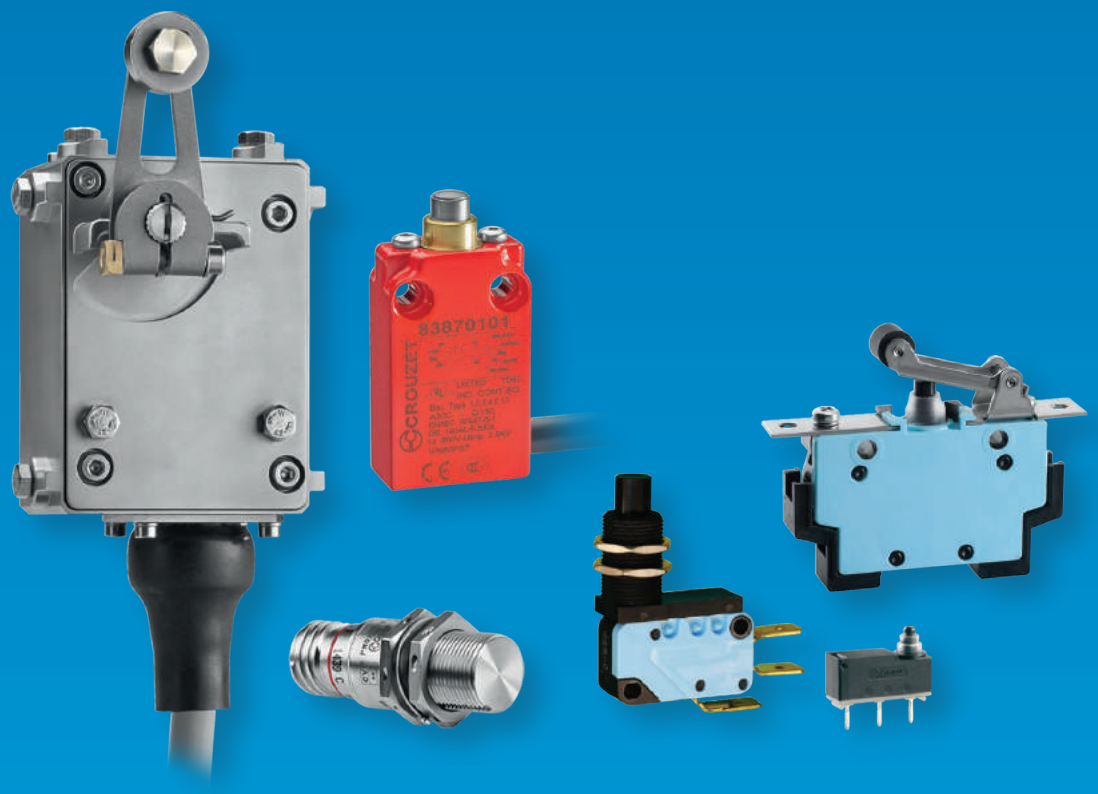

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Sensors | Controls | Actuators

For

Aerospace & Defense | **Transportation** | **Industry**

MICROSWITCHES AND LIMIT SWITCHES

All products are snap-action switches

	MICROSWITCHES													LIMIT SWITCHES								
	SUB-SUBMINIATURE			SUBMINIATURE				MINIATURE			SPECIAL			STANDARD		SPECIAL		HARSH ENVIRONMENT				SEAT SWITCHES
Series	V5S 8320	83228 83229	V5D 83194 83141	V4/V4D 83170 8327	V4S 8318	83132 83133 83134	83151 83560	V3/V3D 83161/160 8326	V3S/V3DS 83169 8329	83139	PBX 8324	83106/109 83111/112 83154	83123	8387 8388	8383 8384	83589	83731 83732 83733	83777 83778	83770 83771	8399Ex	8399Nuc	839921**
Max Rating @ 250 V∼	4 A	5 A	5 A	12 A	10 A	6 A	5 A	25 A	10 A	6 A	10 A	16 A	10 A	10 A	10 A	8 A	10 A	4 A	4 A	1 A	1 A	4 A
Low Level version	I(mA)	I(mA)	I(mA)	I(mA)	I(mA)	I(mA)	I(mA)	I(mA)	I(mA)	I(mA)	I(mA)	I(mA)		I(mA)		I(mA)		I(mA)	I(mA)	I(mA)	I(mA)	I(mA)
High DC rating / Magnetic Blowout																						
Double break						Za*				Za*	Zb*	Za*		Zb*	Za*							
Positive opening operation																						
Bistable version (maintained action)						Push Pull					Push Pull**	Push Pull										
Sealing level	IP67 IP69				IP67 IP69		Gas tight Hermetic		IP67 IP69	IP66 IP67	IP65 IP67		IP66 IP67 IP69	IP66 IP67 IP69	IP66	IP66 IP67 IP69	IP66 IP69	IP66 IP68 (4m) IP69	IP66 IP68 (18m) IP69	IP66 IP67 IP69	IP66 IP68 (18m) IP69	IP67
High temperature (above 125 °C / 257 °F)		+140 °C +284 °F	+150 °C +302 °F	+150 °C +302 °F		+150 °C +302 °F	+250 °C +482 °F	+200 °C +392 °F											+250 °C +482 °F	+200 °C +392 °F	+250 °C +482 °F	
Low temperature (below -40 °C / -40 °F)		-55 °C -67 °F	-55 °C -67 °F				-55 °C -67 °F	-60 °C -76 °F			-50 °C -58 °F							-55 °C -67 °F	-55 °C -67 °F		-55 °C -67 °F	
Explosive atmospheres							**												**			
Irradiated environment			**			**	**											**	**			
High pressure environment up to 6 bar																						
Approvals NF/ENEC	**		**	NF	NF	**		NF	**													
UL	UL	UL	UL	UL	UL	UL		UL	UL	UL	UL	UL		UL								
CCC	CCC	**	CCC	CCC	CCC	CCC	CCC	CCC	CCC	CCC	CCC	CCC	CCC	CCC	CCC	CCC	CCC	**	CCC	CCC	CCC	
EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC			

* Za: NO and NC circuits must be used at same polarity. Zb: NO and NC circuits are electrically separated, and can be used at opposite polarities.
** Consult us

MANUALLY OPERATED SWITCHES

Crouzet offers a wide range of Pushbuttons, Toggles, Rockers, Triggers, Thumbsticks/Trim/Multiway and Thumbwheel/Selector switches for industrial use as well as for high spec applications:

- Momentary and/or maintained action
- 1 to 4-pole snap-action configurations
- Ratings from 1 mA 5 V⎓ to 20 A 250 V∼ / 5 A 250 V⎓
- Protection degree: from IP40 to IP52
- Temperature range: from -60 °C to +125 °C /-76 °F to +257 °F
- Mechanical life up to 10 million cycles

PROXIMITY SENSORS

Crouzet provides a complete range of Proximity Sensors with standard industrial features to high level performance features:

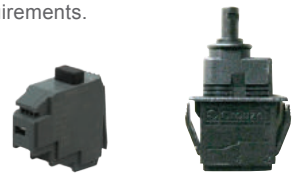
- 2 or 3 wires configuration
- 2 parts sensors integration with remote electronics
- MTBF: 300,000 hours in operation
- Temperature range: -65 °C to +125 °C / -85 °F to +257 F
- Watertight or hermetic versions
- High pressure operation

ADAPTATION WHEEL

To meet market expectations and provide customers with the right solutions within the shortest timeframes, Crouzet has structured its processes around the different types of products available: standard products, adapted products or customers specific customized products.
Introducing the adaptation wheel...

SPECIAL PRODUCT

From the very start of a project, Crouzet Switches' experts work closely with your teams to develop the specifications. All our design, industrialization and approval expertise go into developing detection solutions that are tailored to your requirements.



STANDARD PRODUCT

A full range of microswitches, limit switches, manually operated switches and sensors, are immediately available so that you can design your system as quickly as possible.

ADAPTED PRODUCT

Complete coordination between your project teams and our specialists, these adapted products have exactly the right levels of performance and functionality you need for your applications.

PRODUCT WITH ADDED VALUE

All our standard products can have additional factory-mounted auxiliaries or accessories, including connectors, leads, special terminals, fixings, levers, etc. Seamless integration into your equipment means you benefit from simpler logistics and optimum installation reliability.

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CROUZET

SWITCHES & POSITION SENSORS | MOTION
AUTOMATION & CONTROL

Railways

DETECTION, SWITCHING & MOTION CONTROL SOLUTIONS

www.crouzet.com

ABOUT CROUZET

Since 1921, Crouzet has been committed to designing, manufacturing and supplying efficient components for automated systems to serve a wide range of applications in the Aerospace & Defense market and in many Industrial equipment markets with a specific focus on applications such as Access control, Railway, Nuclear and Industrial valves markets.

Crouzet's product lines include Automation and Control devices, Motion products, Switches and Position Sensors, Cockpit Controls and Electrical Protection solutions.

Crouzet has a heritage of close collaboration with customers in the development of adapted products to fully customized solutions.

Driven by innovation and customer satisfaction our teams are focused on delivering the right products and services for the right application, always meeting, often exceeding customers' expectations.

Crouzet is your trusted partner of choice to face industrial challenges of today and tomorrow.

Crouzet is a brand of InnoVista Sensors™.

INNOVISTA SENSORS

InnoVista Sensors™ is a worldwide industrial specialist of sensors, controllers and actuators for automated systems.

Through it brand, Crouzet, InnoVista Sensors™ offers a wide range of reliable, efficient and customizable components dedicated to the Aerospace & Defense, Transportation and Industrial markets and segments.

Thanks to the recognized expertise of its teams and a strong innovation policy, InnoVista Sensors™ brings performance enhancing solutions to its customers worldwide.

InnoVista Sensors™: your trusted partner of choice to face industrial challenges of today and tomorrow.

www.innovistasensors.com

Designs & Manufactures

Sensors

Controls

Actuators

For

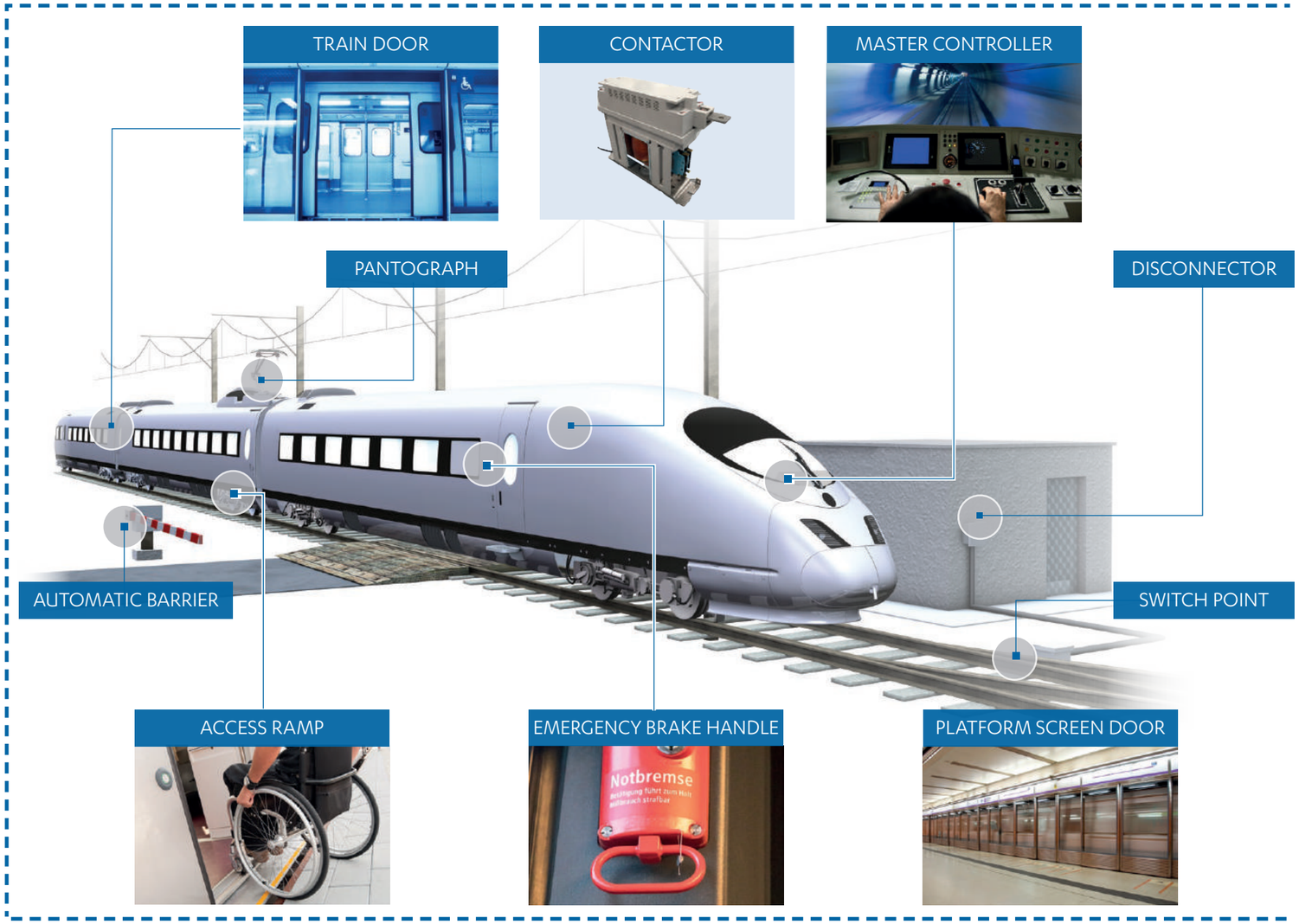
Aerospace & Defense

Transportation

Industry

CROUZET IN THE **RAILWAY SECTOR**

Actively involved in the railway industry for over 50 years, Crouzet has built up a solid reputation as a reliable manufacturer of safety critical components for various rolling stock segments and some fixed installations.



CUSTOMER BENEFITS

Safety & Security

- Robust products compliant to railway standards & approved to customers' specification
- Harsh environment resistance & long operating life
- Custom adaptation center for tailor-made solutions

Norms

EN 45545 IEC 61373 EN 50124-1

Efficiency & Cost-Effectiveness

- Global solutions of detection, switching, motion & remote control from one supplier
- Reduced maintenance thanks to easy-integration, low-noise & low-vibration motors
- Worldwide presence with European & Asian production sites

Proven Expertise

- Extensive knowledge of railway applications through partnerships with the key players – Alstom-Siemens, Bombardier, CRRC, Fuji, Hitachi, Kangni, Knorr-Bremse Group, Secheron, Vossloh, Wabtec Group…
- Best practices shared
- Member of French Railway Industry (FIF) & Railway Supply Institute (RSI)

FIF

RAILWAY SUPPLY INSTITUTE

SWITCHES

Microswitches

- Largest range of the market
- Ratings from 1 mA to 16 A / AC or DC
- Tag terminals or lead/cable output
- IP40 to IP69 protection
- Changeover SPDT with separate NO/NC circuit
- Positive opening operation of NC contacts
- Wide range of actuators and mounting accessories
- Long life up to 10 M cycles

Limit Switches

- Robust construction with metal housing
- Ratings from 1 mA to 10 A / AC or DC
- Cable output, halogen free on request
- IP66 to IP69 protection
- Changeover SPDT with separate NO/NC circuits
- Positive opening operation of NC contact
- Wide range of actuating heads
- Long life up to 10 M cycles

MOTORS

DCmind Brushless Motors

- Large range up to 600 W (nominal power) and 6 Nm (peak torque)
- Integrated electronics
- User-friendly software: DCmind soft + CANopen with expert & applicative programs
- CANopen available, other communication buses on demand
- Encoder 4096 position per turn, other encoder option on demand
- IP54, up to IP65, IP67 & IP69 (please contact us)

DCmind Brush Motors

- Exceptionally quiet: 35 dBA
- Service life up to 24,000 hours at no-load
- 5000 hours at rated load
- More than 80 % efficiency
- Output power up to 104 W
- IP65, up to IP67 & IP69 (please contact us)

Gearboxes

Planetary
- Max torque 120 Nm
- Ratios 5 to 393

Worm
- Max torque 10 Nm
- Ratios 5 to 100

Parallel Shaft
- Please contact us

CONTROL

Timers

- Power supply from 12 to 240 V in one unit
- 1 or 2 relays outputs 8 A, or high Power 16 A output
- 17.5 & 22.5 mm DIN rail mount or 35 mm plug-in
- Recognized quality and reliability ensures the correct operation of equipment

AUTOMATION

Logic Controllers

- Resin protected board
- 12 to 40 I/Os
- Digital and analog inputs
- Vibration resistant
- Extended temperature range (+70°C)
- Outputs via removable connectors
- IP50 seal (connectors)
- DB 9-pin programming port via standard RS 232 cable

INNOVATIVE SOLUTIONS FOR **INCREASED SAFETY**

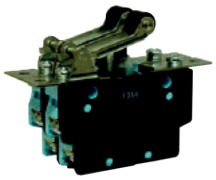
Technology is an important element in improving rail safety. Our electromechanical solutions are designed by using the latest technology for applications where failure is not an option.

DETECTION SWITCH

PBX SWITCH

The PBX is a safety switch which guarantees the forced opening of NC contacts in the event of a short circuit and/or welding due to an overcurrent.

In-line quick-connect terminals



Two-pole DPDT assembly with linked levers

Wires output on bottom

Wires output on left and right

Why choose PBX switch ?

- High reliability
- Long overtravel for easy installation
- Numerous combinations possible thanks to large range of variants and accessories
- Large adaptation capabilities for specific applications (low & high current)
- Extended mechanical & electrical life

GET MORE INFORMATION

MOTION CONTROL

DCmind BRUSH & BRUSHLESS MOTORS

Crouzet offers a comprehensive range of DC brush or brushless motors and gearbox combinations designed to meet the customer's specific needs, as well as an easy-to-use dedicated software for application set-up.

Why choose our DC motors ?

- Complete all-in-one solution (motor + gearbox + electronics)
- Adjustable closing force
- Integrated security function to enable passengers to quickly leave the train in emergency case
- Small size for space-restricted applications
- Reduced maintenance

GET MORE INFORMATION

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LIMIT SWITCHES SELECTION GUIDE

10/2017

		STANDARD					SPECIAL				HARSH ENVIRONMENT				PANEL MOUNT / DOOR SWITCHES				SEAT SWITCHES
SNAP-ACTION SWITCHES																			
Approx. body size (mm)		49x30x16	49x39x16	60x27x25	73x56x36	51x87x33	64x25x25	49x41x22	25x31x12	32x24x13	min. Ø 17x40	min. Ø 14x34	min. 100x30x30	Depending on type	38x35x11	27x17x12	40x29x15	43x32x17	Depending on type
SERIES		**8387**	**8388**	**8380**	**8384**	**8383**	**83589**	**83731 83732 83733**	**83581**	**83139 SP4257**	**83777 83778**	**83770 83771**	**8399 Ex**	**8399 Nuc**	**83523 83528**	**83161 SP9603/SP9604 + variants**	**83513 83522**	**83576**	**839921****
TYPE		**Prewired "EN" size**	**Prewired "US" size**	**Plastic housing**	**Standard**	**Adjustable fixing**	**Premium Plastic housing**	**Low profile housing**	**Miniature**	**Miniature Double break**	**Sealed**	**Hermetic**	**Explosive atmospheres**	**Nuclear applications**	**Latching + Auto reset**	**Extensive range**	**Double break Heavy duty**	**Self adjustable Large travel**	**Tilting actuator Customizable sensitivity**
ELECTRICAL																			
Max. ratings	@ 250 V ∿	10 A	10 A	6 A	10 A	10 A	8 A	10 A	8 A	6 A	4 A	4 A	1 A	1 A	16 A	25 A	16 A	10 A	4 A
	@ 24 V ⎓	10 A	10 A	6 A	10 A	10 A	8 A	10 A	8 A	6 A	4 A	4 A	3 A	3 A	16 A	16 A	16 A	10 A	4 A
	@ 250 V ⎓	0.8 A	0.8 A	0.5 A	0.6 A	0.6 A	0.3 A	0.3 A	0.3 A	0.5 A	0.15 A	0.3 A	4 mA 137 V ⎓	0,2 A 137 V ⎓	5 A	5 A	5 A	0.3 A	0.2 A
Assigned caracteristics	AC15	A300	A300	B300	A300	A300	B300	B300	B300	B300	C300	C300	C300	C300	A300	A300	A300	B300	C300
	DC13	Q150	Q150	R300	Q150	Q150	R300	R300	R300	R300					R300	Q300	Q300	R300	R300
Dual-current version		1 mA → 5 A	1 mA → 5 A	1 mA → 5 A			1 mA → 5 A		1 mA → 5 A	1 mA → 5 A	1 mA → 1 A	1 mA → 1 A	1 mA → 1 A	1 mA → 1 A	1 mA → 5 A	1 mA → 5 A	10 mA → 5 A	1 mA → 5 A	1 mA → 4 A
Thermal rating	Ithe	10 A	10 A	10 A	10 A	10 A	10 A	12 A	10 A	11 A	4 A	4 A	3 A	3 A	17 A	25 A	17 A	12 A	5 A
Insulation voltage	Ui	500 V	500 V	250 V	500 V	500 V	250 V	250 V	250 V	250 V	250 V	250 V	250 V	250 V	250 V	250 V	250 V	250 V	250 V
Impulse withstand voltage	Uimp	2.5 kV	2.5 kV	2.5 kV	4 kV	4 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV
Circuit diagram Contact configuration (for 1 pole changeover/SPDT)		13 21 14 22 Form Zb (separated contacts)	13 21 14 22 Form Zb (separated contacts)	3 1 4 2 Form Za	3 1 4 2 Form Za	3 1 4 2 Form Za	1 2 4 Form C	1 2 4 Form C	1 2 4 Form C	3 1 4 2 Form Za; 1 2 4 or Form C	1 2 4 Form C	1 2 4 Form C	1 2 4 Form C	1 2 4 Form C	3 1 4 2 Form Za	1 2 4 Form C	3 1 4 2 Form Za	1 2 4 Form C	1 2 4 Form C
SPST-NC / SPST-NO versions		✔	✔				✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Multipole version				2 poles**			2 poles**		2 poles**	2 poles**	2 ; 3 poles	2 poles		2 poles	2 ; 3 poles	2 poles**	2 ; 3 poles		
Positive opening operation		⊖	⊖		⊖	⊖**										⊖			
Housing material		Zamak	Zamak	Plastic	Zamak	Zamak	Plastic	Steel	Metal + Plastic	Metal + Plastic	Aluminium	Inox steel	Aluminium ; Bronze or Inox steel	Aluminium ; Bronze or Inox steel	Metal + Plastic	Metal + Plastic	Metal + Plastic	Plastic	Plastic
Protection against electric shock		Class I	Class I	Class I Class II** ⧈	Class I	Class I	Class I Class II** ⧈	Class I	Class I Class II ⧈	Class I Class II ⧈	Class I	Class I	Class I	Class I	Class I	Class I	Class I	Class II ⧈ (front side)	Class I Class II ⧈
ENVIRONMENT																			
Degree of protection		IP66	IP66	IP65	IP66	IP66	IP66	IP66	IP67	IP66	IP66	IP66	IP66	IP66					
	Solid objects + water	IP67 IP69	IP67 IP69				IP67 IP69	IP69	IP69	IP67	IP68 (4 m) IP69	IP68 (18 m) IP69	IP67 IP69	IP68 (18 m) IP69	IP40	IP40	IP40	IP40	IP67
	Mechanical impact	IK07	IK07	**	**	**	IK04/06	**	**	**	**	**	**	**	**	**	**	IK04	**
Operating temperature		-40 °C +70 °C	-40 °C +70 °C	-30 °C +70 °C	-40 °C +70 °C	-40 °C +70 °C	-40 °C +85 °C	-40 °C +70 °C	-40 °C +105 °C	-40 °C +105 °C	-55 °C +125 °C	-55 °C +250 °C	-40 °C +200 °C	-55 °C +250 °C	-40 °C +125 °C	-60 °C +200 °C	-40 °C +125 °C	-40 °C +70 °C	-40 °C +85 °C
Mud / salt /dust / ice environment		✔	✔				✔				✔	✔	✔	✔					
Explosive atmospheres										II2G Ex d		Ex**	II2G Ex d						
Irradiated environment											☢**	☢**		☢		☢**			
High pressure environment												max. 6 bar	max. 6 bar	max. 6 bar					
MECHANICAL																			
Min. Operating Force	Linear	10 N	10 N	10 N	1.5 → 15 N	1.5 → 15 N	10 N	6N ; 15 N	5 N	3.5 N	60 N	12 → 30 N	20 N	8 → 30 N	6 → 30 N	0.8 → 5 N	4 → 12 N	10 N	3 → 10 N
	Rotary	0.15 Nm	0.15 Nm	0.07 Nm	0.2 Nm	0.2 Nm							0.4 Nm	1.1 Nm					
Total Travel	Linear	5 mm	5 mm	5 mm	6 → 11 mm	6 → 11 mm	4.5 mm	4mm ; 6 mm	4mm ; 6 mm	4mm ; 6 mm	4.4 mm ; 6.7 mm	1.3 → 5,5 mm	5.5 mm	2 → 4 mm	6 mm	4 mm ; 6 mm	6 mm	10 → 25 mm	3 mm
	Rotary	70°	70°	60°	60°	60°							60°	80°					
Min. Overtravel		3 mm 35°	3 mm 35°	3.5 mm 45°	3,5 → 5 mm 35°	3,5 → 5 mm 35°	3.5 mm	2,5 mm ; 4 mm	2,5 mm ; 4 mm	2,5 mm ; 4 mm	3.2 mm ; 5.5 mm	1 → 5 mm	4 mm 40° → 50°	0.5 → 3 mm 70°	3 mm ; 3.5 mm	2.5 → 4 mm	4.5 mm	8 → 23 mm	2 mm
Min. Positive Overtravel		1 mm 10°	1 mm 10°		1,5 → 2 mm 15°											0.3 mm			
Max. Differential Travel		0.7 ; 1.3 mm 9° ; 17°	0.7 ; 1.3 mm 9° ; 17°	0.5 mm 8°	0.8 → 2 mm 10°	0.8 → 2 mm 10°	0.2 mm	0.25 mm	1 mm	1 mm	0.2 mm ; 0.5 mm	0.05 mm ; 0.15 mm	0.05 mm 2°	0.05 → 1 mm 2°	1 mm	0.4 → 1.2 mm	0.9 mm	1 mm	0.06 → 0.20mm
Mechanical life	(cycles)	10 M	10 M	10 M	10 M	10 M	10 M	1 M	0.1 M	0.1 M	0.05 M	0.1 M	0.1 M	0.1 M	10 M	0.1 M	1 M	0.1 M	1 M
Operating device	Plunger	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
For linear mvt	Plunger with roller	✔	✔	✔	✔	✔		✔	✔	✔	✔	✔	✔	✔		✔			
	Lever with roller				✔	✔								✔					
	Adjustable lever with roller				✔	✔													
	Adjustable lever + idle-return roller				✔	✔													
For rotary mvt	Roller lever	✔	✔	✔	✔	✔							✔	✔					
Multi-direction	Flexible rod			✔	✔	✔													
	Plunger with ball	✔	✔				✔		✔	✔	✔	✔				✔			
Fixing means	Plain holes	Ø 4	Ø 5	Ø 4	Ø 5								Ø 3 - 3.5 - 4	Ø 3	Ø 3				✔
Non-adjustable	Tapped holes												M5	M5	M3		M3		
	Snap-in																	28 x 14 cut - out	✔
Adjustable	Elongated holes					6 x 21 mm													
	Threaded barrel	M12 x 0.75	M12 x 0.75	M16 x 1			M16 x 1	M16 x 1	M10 x 0.75	M10 x 0.75	M12 x 0.75 ; M16 x 1	M8/M12/M14 x 0.75		M12 x 0.75		M10 x 0.75	M12 x 0.75		
Connections	Screw			✔	✔	✔									✔	✔	✔		
Terminals	Solder			✔								✔			✔	✔	✔		
	Fast-on														✔	✔	✔	✔	
Pre-wired	Wires	**	**	**			**		✔	✔	✔	✔	✔						✔
	Cable	✔	✔	**			✔	✔	✔	✔	✔	✔	✔	✔					✔
	Integral connector	✔	✔	✔							✔	✔	✔	✔					
Approvals	UL	c UL us LISTED	c UL us LISTED	c UL us LISTED					**	c UL us					c UL us	c UL us	c UL us	**	
	CCC	CCC	CCC	CCC	CCC	CCC	CCC	CCC	CCC	CCC	**	CCC	CCC	CCC	CCC	CCC	CCC	CCC	
	EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC	EAC				EAC			

CROUZET

* Pending ** Consult us

The features presented in this selection guide represent the extent of performance of each Limit switch Series. Not all combinations of characteristics are feasible at an individual product.
Please refer to relevant product sheet or consult our customer service. For more information see also the "Basic technical concepts".

Note: data contained in product sheets dated 2016 and before may differ from the features shown in this selection guide. Update is in progress. Please contact us for confirmation.

Warning:

The product information contained in this catalogue is given purely as information and does not constitute a representation, warrantly or any form of contractual commitment. Crouzet Automatismes SAS and its subsidiaries reserve the right to modify their products without notice. It is imperative that we should be consulted over any particular use or application of our products and it is the responsability of the buyer to establish, particularly through all the appropriate tests, that the product is suitable for the use or application. Under no circumstances will our warranty apply, nor shall we be held responsible for any application (such as any modification, addition, deletion, use in conjunction with other electrical or electronic components, circuits or assemblies, or any other unsuitable material or substance) which has not been expressly agreed by us prior to the sale of our products.

MINIATURE MICROSWITCHES - STANDARD

V3D - 8326

- C-spring snap-action mechanism with wiping contacts
- Ratings from 0.02 A 24 V⎓ up to 25 A 250 V∿ and 1 HP 125V∿ / 2 HP 250 V∿
- Broad range of operating forces from 0.25 N to 4 N
- Operating temperature from -50 °C up to +200 °C
- Wide choice of connections
- Housing material complying with IEC 60335-1 for unattended appliances: GWFI 850° C / GWIT 775° C
- ENEC and cURus approved
- Choice of pre-assembled actuators on 2 possible fixing positions

Main specifications

Function	Connections	Standard 83263	High current 83262	High force 83261	Low force 83264	Very low force 83265	Low current 83268	Low current Low force 83269
I (changeover)	W1	83263001	83262001	83261001	83264001	83265001	83268001	83269001
I (changeover)	W2	83263011	83262011	83261011	83264011	83265011	83268011	83269011
I (changeover)	W3	83263021	83262021	83261021	83264021	83265021	83268021	83269021
I (changeover)	W3R5	83263031	83262031	83261031	83264031	83265031	83268031	83269031
I (changeover)	W6A5	83263041	83262041	83261041	83264041	83265041	83268041	83269041
I (changeover)	W6D8	83263051	83262051	83261051	83264051	83265051	83268051	83269051
I (changeover)	W7A5	83263061	-	83261061	83264061	83265061	83268061	83269061
I (changeover)	X2	83263071	-	83261071	83264071	83265071	83268071	83269071
I (changeover)	X3	83263081	-	83261081	83264081	83265081	83268081	83269081
I (changeover)	X1	83263091	-	83261091	83264091	83265091	83268091	83269091
R (normally closed)	W1	83263601	83262601	83261601	83264601	83265601	83268601	83269601
R (normally closed)	W2	83263611	83262611	83261611	83264611	83265611	83268611	83269611
R (normally closed)	W3	83263621	83262621	83261621	83264621	83265621	83268621	83269621
R (normally closed)	W3R5	83263631	83262631	83261631	83264631	83265631	83268631	83269631
R (normally closed)	W6A5	83263641	83262641	83261641	83264641	83265641	83268641	83269641
R (normally closed)	W6D8	83263651	83262651	83261651	83264651	83265651	83268651	83269651
R (normally closed)	W7A5	83263661	-	83261661	83264661	83265661	83268661	83269661
C (normally open)	W1	83263801	83262801	83261801	83264801	83265801	83268801	83269801
C (normally open)	W2	83263811	83262811	83261811	83264811	83265811	83268811	83269811
C (normally open)	W3	83263821	83262821	83261821	83264821	83265821	83268821	83269821
C (normally open)	W3R5	83263831	83262831	83261831	83264831	83265831	83268831	83269831
C (normally open)	W6A5	83263841	83262841	83261841	83264841	83265841	83268841	83269841
C (normally open)	W6D8	83263851	83262851	83261851	83264851	83265851	83268851	83269851
C (normally open)	W7A5	83263861	-	83261861	83264861	83265861	83268861	83269861
Electrical characteristics								
Rating nominal / 250 V AC (A)		16	20	16	12	5	-	-
Rating thermal / 250 V AC (A)		20	25	20	15	7.5	-	-
Operating range / 5 →24 V AC/DC (A)		-	-	-	-	-	0.001 → 0.02	0.001 → 0.02
Rating ENEC/NF / 250 V AC (A)		16(4)	20(8)	16(4)	12(6)	5(1)	0.1(0.04)	0.1(0.04)
Rating UL / 125/250 V AC (A)		16	21	16	8	5	0.1	0.1
Rating UL HP / 125/250 V AC		-*	1HP/2HP	-*	1/4HP	1/10HP	-	-
Mechanical characteristics								
Maximum operating force (N)		1	2	2	0.5	0.25	1	0.25
Min. Release force (N)		0.2	0.5	0.5	0.1	0.05	0.2	0.05
Maximum total travel force (N)		1.5	3	3	0.8	0.4	1.5	0.4
Max. Allowable overtravel force (N)		20	20	20	20	20	20	20
Rest position max. (mm)		16.2	16.2	16.2	16.2	16.2	16.2	16.2
Operating position (mm)		14.7 ±0.5	14.7 ±0.5	14.7 ±0.5	14.7 ±0.5	14.7 ±0.5	14.7 ±0.5	14.7 ±0.5
Maximum differential travel (mm)		0.4	0.4	0.4	0.4	0.4	0.4	0.4
Min. overtravel (mm)		1.1	1.1	1.1	1.1	1.1	1.1	1.1
Ambient operating temperature (°C)		-50 → +125	-50 → +125	-50 → +125	-20 → +125	-20 → +125	-50 → +150	-20 → +150
Mechanical life for 2/3 OT (operations)		10^6	10^6	10^6	10^6	10^6	10^6	10^6
Contact gap (mm)		0.4	0.4	0.4	0.4	0.4	0.4	0.4
Weight (g)		6	6	6	6	6	6	6

* Also available with 1/2HP (83263 SP9333, 83261 SP9331)

Additional specifications

- Case, Button: PET GF (UL 94-V0 / GWFI 960 °C / GWIT 775 °C)
- Contacts: silver alloy or gold plated (83268/269)
- Terminals: brass, silver-plated brass (W2, X)
- Levers: stainless steel, polyamide roller
- Degree of protection: IP40 (mechanism)
- Proof tracking index: PTI 250 (PTI 300 on request)
- Protection against electric shock: button and actuators mounted on position B have reinforced insulation for Ui 250V / Uimp 2,5kV / pollution 2
- Recommended min actuating speed: 83261/83262: 0.3 mm/s
  83263/83268: 1 mm/s
  83264/83265/83269: 3 mm/s

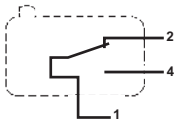
Standard product | Product made to order | ● Contact us

Product adaptations

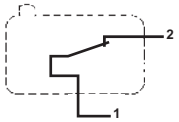
- Special levers: special shapes and lengths
- Lever mounted on position A for higher ratio
- Special connections: angled, screw with clamp (W5-SP9348), solder with enlarged hole (W2-SP9368), RAST 2.5 (W3R2.5-SP9307), …
- Higher operating force: max 4 N (83261 SP9335, 83262 SP9347)
- +200 °C versions: max 8A, ENEC and cURus approved (83261-83263-83268-83269 SP9328)
- 25 A cURus approved version (83262 SP9360)
- Telescopic plunger and adjustable fixing by threaded barrel: plastic and metal versions (consult us)

Principles

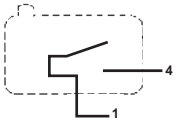
Single break snap-action switch
Changeover - SPDT (form C)



Normally closed - SPST-NC (form B)

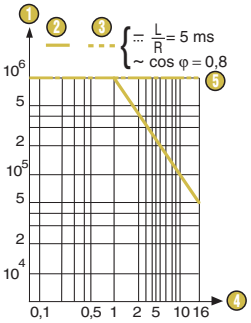


Normally open - SPST-NO (form A)



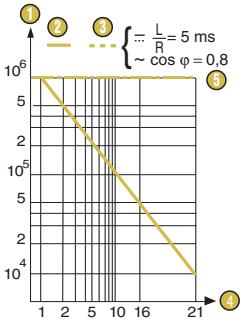
Curves

Operating curve for types 83261 / 83263



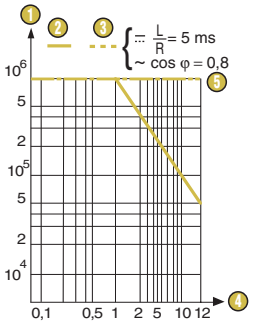
1. Number of cycles
2. Resistive circuit
3. Inductive circuit
4. Current in Amps
5. Mechanical life limit

Operating curve for type 83262



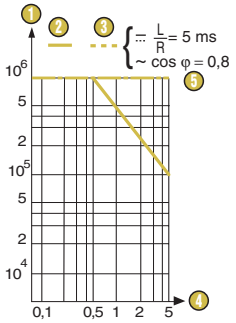
1. Number of cycles
2. Resistive circuit
3. Inductive circuit
4. Current in Amps
5. Mechanical life limit

Operating curve for type 83264



1. Number of cycles
2. Resistive circuit
3. Inductive circuit
4. Current in Amps
5. Mechanical life limit

Operating curve for type 83265



1. Number of cycles
2. Resistive circuit
3. Inductive circuit
4. Current in Amps
5. Mechanical life limit

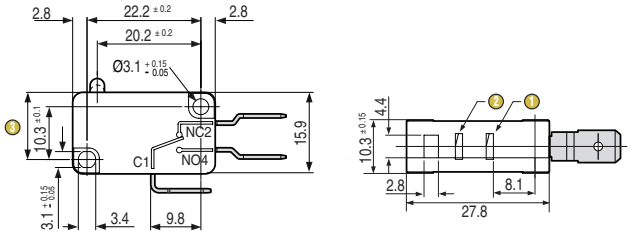
Electrical life for 83268/83269: 24 V∿/⎓ 5 mA: 20 000 cycles*
12 V∿/⎓ 10 mA: 20 000 cycles*

* For longer electrical life, please consult us

Dimensions

Product

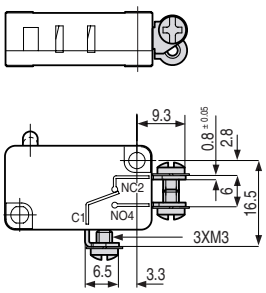
8326



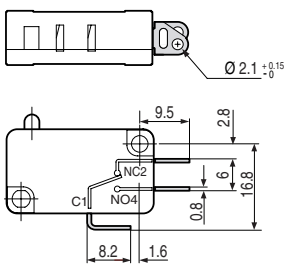
1. Lever mounting position B (standard)
2. Lever mounting position A (optional)
3. Total travel position = 13.2 max

Connections

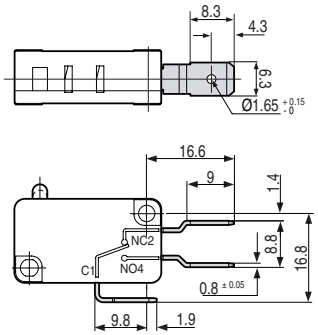
W1 screw



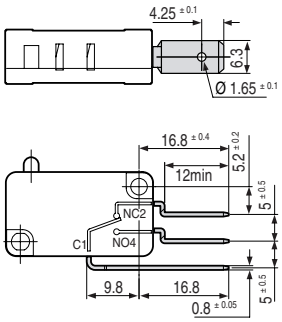
W2 solder



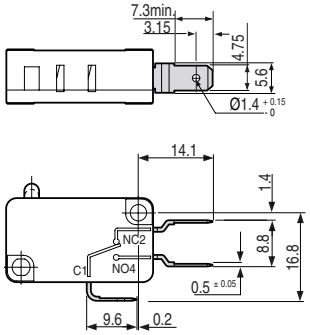
W3 quick-connect 6.3 x 0.8



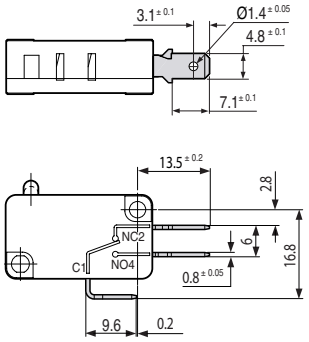
W3R5 quick-connect 6.3 x 0.8 for RAST 5 connector



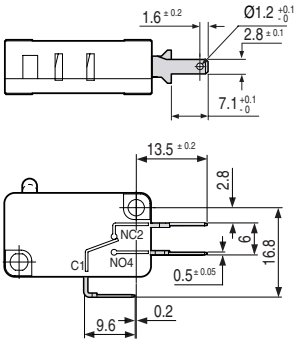
W6A5 quick-connect 4.8 x 0.5



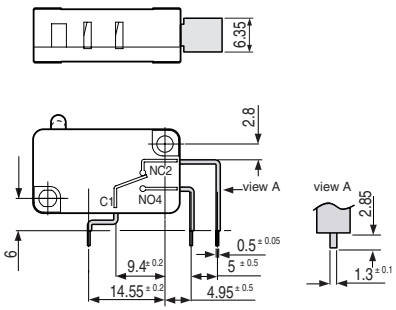
W6D8 quick-connect 4.8 x 0.8



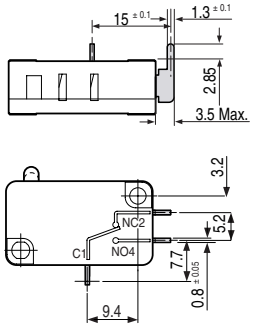
W7A5 quick-connect 2.8 x 0.5



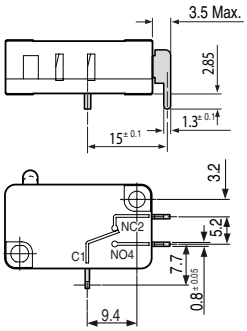
X1 for printed circuit board, straight output



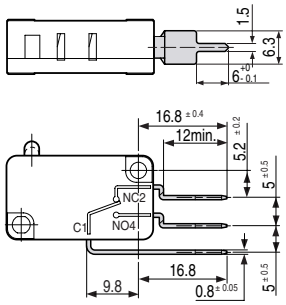
X2 for printed circuit board, rear output



X3 for printed circuit board, front output

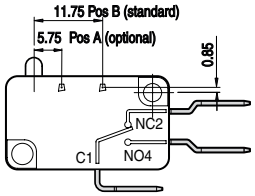


W3R2.5 for RAST 2.5 connector (SP9307)



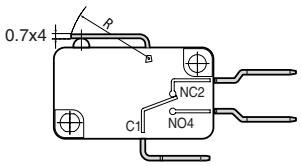
Other shapes and dimensions: consult us

Actuator mounting positions

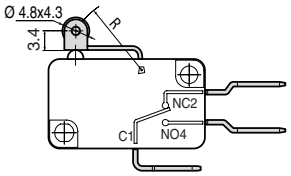


Actuators

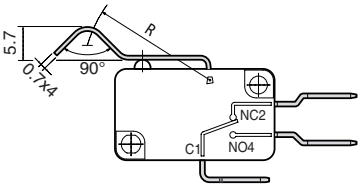
260A flat



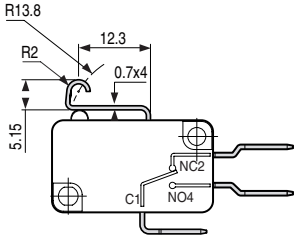
260E roller



260F dummy roller

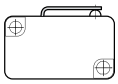
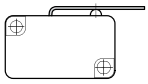
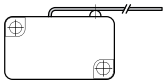
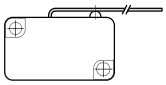
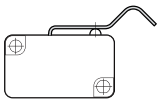
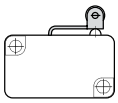
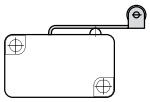
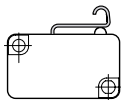


260G dummy roller

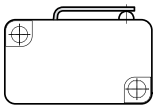
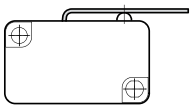
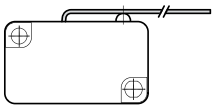


Other shapes and dimensions: consult us

Actuators and mounting accessories

Mechanical characteristics		Length of actuator (mm)	Maximum operating force (N)	Minimum release force (N)	Operating position (mm)	Minimum overtravel (mm)	Maximum differential travel (mm)	Maximum total travel (mm)
 Lever 260A R14.2 Pos B	**83261**	14.2	2	0.5	$15.4^{\pm0.5}$	1.1	0.4	3
	83262	14.2	2	0.5	$15.4^{\pm0.5}$	1.1	0.4	3
	83263	14.2	1	0.2	$15.4^{\pm0.5}$	1.1	0.4	3
	83264	14.2	0.5	0.1	$15.4^{\pm0.5}$	1.1	0.4	3
	83265	14.2	0.25	0.05	$15.4^{\pm0.5}$	1.1	0.4	3
	83268	14.2	1	0.2	$15.4^{\pm0.5}$	1.1	0.4	3
	83269	14.2	0.25	0.05	$15.4^{\pm0.5}$	1.1	0.4	3
 Lever 260A R25.4 Pos B	**83261**	25.4	1	0.25	$15.4^{\pm1}$	2	0.8	5.8
	83262	25.4	1	0.25	$15.4^{\pm1}$	2	0.8	5.8
	83263	25.4	0.5	0.1	$15.4^{\pm1}$	2	0.8	5.8
	83264	25.4	0.25	0.05	$15.4^{\pm1}$	2	0.8	5.8
	83265	25.4	0.13	0.02	$15.4^{\pm1}$	2	0.8	5.8
	83268	25.4	0.5	0.1	$15.4^{\pm1}$	2	0.8	5.8
	83269	25.4	0.13	0.02	$15.4^{\pm1}$	2	0.8	5.8
 Lever 260A R40 Pos B	**83261**	40	0.6	0.15	$15.4^{\pm1.8}$	3.3	1.3	9.6
	83262	40	0.6	0.15	$15.4^{\pm1.8}$	3.3	1.3	9.6
	83263	40	0.3	0.06	$15.4^{\pm1.8}$	3.3	1.3	9.6
	83264	40	0.15	0.03	$15.4^{\pm1.8}$	3.3	1.3	9.6
	83265	40	0.08	0.01	$15.4^{\pm1.8}$	3.3	1.3	9.6
	83268	40	0.3	0.06	$15.4^{\pm1.8}$	3.3	1.3	9.6
	83269	40	0.08	0.01	$15.4^{\pm1.8}$	3.3	1.3	9.6
 Lever 260A R60 Pos B	**83261**	60	0.4	0.1	$15.4^{\pm2.5}$	5	2	14.5
	83262	60	0.4	0.1	$15.4^{\pm2.5}$	5	2	14.5
	83263	60	0.2	0.04	$15.4^{\pm2.5}$	5	2	14.5
	83264	60	0.1	0.02	$15.4^{\pm2.5}$	5	2	14.5
	83265	60	0.05	0.01	$15.4^{\pm2.5}$	5	2	14.5
	83268	60	0.2	0.04	$15.4^{\pm2.5}$	5	2	14.5
	83269	60	0.05	0.01	$15.4^{\pm2.5}$	5	2	14.5
 Lever 260F R22.2 Pos B	**83261**	22.2	1.06	0.26	$20.4^{\pm1}$	1.8	0.75	5.2
	83262	22.2	1.06	0.26	$20.4^{\pm1}$	1.8	0.75	5.2
	83263	22.2	0.53	0.1	$20.4^{\pm1}$	1.8	0.75	5.2
	83264	22.2	0.27	0.05	$20.4^{\pm1}$	1.8	0.75	5.2
	83265	22.2	0.13	0.02	$20.4^{\pm1}$	1.8	0.75	5.2
	83268	22.2	0.53	0.1	$20.4^{\pm1}$	1.8	0.75	5.2
	83269	22.2	0.13	0.02	$20.4^{\pm1}$	1.8	0.75	5.2
 Lever 260E R13.7 Pos B	**83261**	13.7	2	0.5	$20.5^{\pm0.8}$	1.1	0.4	3
	83262	13.7	2	0.5	$20.5^{\pm0.8}$	1.1	0.4	3
	83263	13.7	1	0.2	$20.5^{\pm0.8}$	1.1	0.4	3
	83264	13.7	0.5	0.1	$20.5^{\pm0.8}$	1.1	0.4	3
	83265	13.7	0.25	0.05	$20.5^{\pm0.8}$	1.1	0.4	3
	83268	13.7	1	0.2	$20.5^{\pm0.8}$	1.1	0.4	3
	83269	13.7	0.25	0.05	$20.5^{\pm0.8}$	1.1	0.4	3
 Lever 260E R24.3 Pos B	**83261**	24.3	1	0.25	$20.5^{\pm1.5}$	2	0.8	5.8
	83262	24.3	1	0.25	$20.5^{\pm1.5}$	2	0.8	5.8
	83263	24.3	0.5	0.1	$20.5^{\pm1.5}$	2	0.8	5.8
	83264	24.3	0.25	0.05	$20.5^{\pm1.5}$	2	0.8	5.8
	83265	24.3	0.13	0.02	$20.5^{\pm1.5}$	2	0.8	5.8
	83268	24.3	0.5	0.1	$20.5^{\pm1.5}$	2	0.8	5.8
	83269	24.3	0.13	0.02	$20.5^{\pm1.5}$	2	0.8	5.8
 Lever 260G R13.8 Pos B	**83261**	13.8	2	0.5	$19.9^{\pm0.7}$	1.1	0.4	3
	83262	13.8	2	0.5	$19.9^{\pm0.7}$	1.1	0.4	3
	83263	13.8	1	0.2	$19.9^{\pm0.7}$	1.1	0.4	3
	83264	13.8	0.5	0.1	$19.9^{\pm0.7}$	1.1	0.4	3
	83265	13.8	0.25	0.05	$19.9^{\pm0.7}$	1.1	0.4	3
	83268	13.8	1	0.2	$19.9^{\pm0.7}$	1.1	0.4	3
	83269	13.8	0.25	0.05	$19.9^{\pm0.7}$	1.1	0.4	3

V3D - 8326 with referenced actuators

		Type	83261	83262	83263	83264	83265	83268	83269
Actuators	**Function**	**Connection**							
 Lever 260A R14.2 Pos B	I	W1	83261002	83262002	83263002	83264002	83265002	83268002	83269002
	I	W2	83261012	83262012	83263012	83264012	83265012	83268012	83269012
	I	W3	83261022	83262022	83263022	83264022	83265022	83268022	83269022
	I	W3R5	83261032	83262032	83263032	83264032	83265032	83268032	83269032
	I	W6A5	83261042	83262042	83263042	83264042	83265042	83268042	83269042
	I	W6D8	83261052	83262052	83263052	83264052	83265052	83268052	83269052
	I	W7A5	83261062	-	83263062	83264062	83265062	83268062	83269062
	I	X2	83261072	-	83263072	83264072	83265072	83268072	83269072
	I	X3	83261082	-	83263082	83264082	83265082	83268082	83269082
	I	X1	83261092	-	83263092	83264092	83265092	83268092	83269092
	R	W1	83261602	83262602	83263602	83264602	83265602	83268602	83269602
	R	W2	83261612	83262612	83263612	83264612	83265612	83268612	83269612
	R	W3	83261622	83262622	83263622	83264622	83265622	83268622	83269622
	R	W3R5	83261632	83262632	83263632	83264632	83265632	83268632	83269632
	R	W6A5	83261642	83262642	83263642	83264642	83265642	83268642	83269642
	R	W6D8	83261652	83262652	83263652	83264652	83265652	83268652	83269652
	R	W7A5	83261662	-	83263662	83264662	83265662	83268662	83269662
	C	W1	83261802	83262802	83263802	83264802	83265802	83268802	83269802
	C	W2	83261812	83262812	83263812	83264812	83265812	83268812	83269812
	C	W3	83261822	83262822	83263822	83264822	83265822	83268822	83269822
	C	W3R5	83261832	83262832	83263832	83264832	83265832	83268832	83269832
	C	W6A5	83261842	83262842	83263842	83264842	83265842	83268842	83269842
	C	W6D8	83261852	83262852	83263852	83264852	83265852	83268852	83269852
	C	W7A5	83261862	-	83263862	83264862	83265862	83268862	83269862
 Lever 260A R25.4 Pos B	I	W1	83261003	83262003	83263003	83264003	83265003	83268003	83269003
	I	W2	83261013	83262013	83263013	83264013	83265013	83268013	83269013
	I	W3	83261023	83262023	83263023	83264023	83265023	83268023	83269023
	I	W3R5	83261033	83262033	83263033	83264033	83265033	83268033	83269033
	I	W6A5	83261043	83262043	83263043	83264043	83265043	83268043	83269043
	I	W6D8	83261053	83262053	83263053	83264053	83265053	83268053	83269053
	I	W7A5	83261063	-	83263063	83264063	83265063	83268063	83269063
	I	X2	83261073	-	83263073	83264073	83265073	83268073	83269073
	I	X3	83261083	-	83263083	83264083	83265083	83268083	83269083
	I	X1	83261093	-	83263093	83264093	83265093	83268093	83269093
	R	W1	83261603	83262603	83263603	83264603	83265603	83268603	83269603
	R	W2	83261613	83262613	83263613	83264613	83265613	83268613	83269613
	R	W3	83261623	83262623	83263623	83264623	83265623	83268623	83269623
	R	W3R5	83261633	83262633	83263633	83264633	83265633	83268633	83269633
	R	W6A5	83261643	83262643	83263643	83264643	83265643	83268643	83269643
	R	W6D8	83261653	83262653	83263653	83264653	83265653	83268653	83269653
	R	W7A5	83261663	-	83263663	83264663	83265663	83268663	83269663
	C	W1	83261803	83262803	83263803	83264803	83265803	83268803	83269803
	C	W2	83261813	83262813	83263813	83264813	83265813	83268813	83269813
	C	W3	83261823	83262823	83263823	83264823	83265823	83268823	83269823
	C	W3R5	83261833	83262833	83263833	83264833	83265833	83268833	83269833
	C	W6A5	83261843	83262843	83263843	83264843	83265843	83268843	83269843
	C	W6D8	83261853	83262853	83263853	83264853	83265853	83268853	83269853
	C	W7A5	83261863	-	83263863	83264863	83265863	83268863	83269863
 Lever 260A R40 Pos B	I	W1	83261004	83262004	83263004	83264004	83265004	83268004	83269004
	I	W2	83261014	83262014	83263014	83264014	83265014	83268014	83269014
	I	W3	83261024	83262024	83263024	83264024	83265024	83268024	83269024
	I	W3R5	83261034	83262034	83263034	83264034	83265034	83268034	83269034
	I	W6A5	83261044	83262044	83263044	83264044	83265044	83268044	83269044
	I	W6D8	83261054	83262054	83263054	83264054	83265054	83268054	83269054
	I	W7A5	83261064	-	83263064	83264064	83265064	83268064	83269064
	I	X2	83261074	-	83263074	83264074	83265074	83268074	83269074
	I	X3	83261084	-	83263084	83264084	83265084	83268084	83269084
	I	X1	83261094	-	83263094	83264094	83265094	83268094	83269094
	R	W1	83261604	83262604	83263604	83264604	83265604	83268604	83269604
	R	W2	83261614	83262614	83263614	83264614	83265614	83268614	83269614
	R	W3	83261624	83262624	83263624	83264624	83265624	83268624	83269624
	R	W3R5	83261634	83262634	83263634	83264634	83265634	83268634	83269634
	R	W6A5	83261644	83262644	83263644	83264644	83265644	83268644	83269644
	R	W6D8	83261654	83262654	83263654	83264654	83265654	83268654	83269654
	R	W7A5	83261664	-	83263664	83264664	83265664	83268664	83269664
	C	W1	83261804	83262804	83263804	83264804	83265804	83268804	83269804
	C	W2	83261814	83262814	83263814	83264814	83265814	83268814	83269814
	C	W3	83261824	83262824	83263824	83264824	83265824	83268824	83269824
	C	W3R5	83261834	83262834	83263834	83264834	83265834	83268834	83269834
	C	W6A5	83261844	83262844	83263844	83264844	83265844	83268844	83269844
	C	W6D8	83261854	83262854	83263854	83264854	83265854	83268854	83269854
	C	W7A5	83261864	-	83263864	83264864	83265864	83268864	83269864

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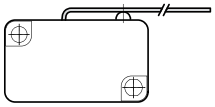
Actuators	**Function**	**Connection**							
 Lever 260A R60 Pos B	I	W1	83261005	83262005	83263005	83264005	83265005	83268005	83269005
	I	W2	83261015	83262015	83263015	83264015	83265015	83268015	83269015
	I	W3	83261025	83262025	83263025	83264025	83265025	83268025	83269025
	I	W3R5	83261035	83262035	83263035	83264035	83265035	83268035	83269035
	I	W6A5	83261045	83262045	83263045	83264045	83265045	83268045	83269045
	I	W6D8	83261055	83262055	83263055	83264055	83265055	83268055	83269055
	I	W7A5	83261065	-	83263065	83264065	83265065	83268065	83269065
	I	X2	83261075	-	83263075	83264075	83265075	83268075	83269075
	I	X3	83261085	-	83263085	83264085	83265085	83268085	83269085
	I	X1	83261095	-	83263095	83264095	83265095	83268095	83269095
	R	W1	83261605	83262605	83263605	83264605	83265605	83268605	83269605
	R	W2	83261615	83262615	83263615	83264615	83265615	83268615	83269615
	R	W3	83261625	83262625	83263625	83264625	83265625	83268625	83269625
	R	W3R5	83261635	83262635	83263635	83264635	83265635	83268635	83269635
	R	W6A5	83261645	83262645	83263645	83264645	83265645	83268645	83269645
	R	W6D8	83261655	83262655	83263655	83264655	83265655	83268655	83269655
	R	W7A5	83261665	-	83263665	83264665	83265665	83268665	83269665
	C	W1	83261805	83262805	83263805	83264805	83265805	83268805	83269805
	C	W2	83261815	83262815	83263815	83264815	83265815	83268815	83269815
	C	W3	83261825	83262825	83263825	83264825	83265825	83268825	83269825
	C	W3R5	83261835	83262835	83263835	83264835	83265835	83268835	83269835
	C	W6A5	83261845	83262845	83263845	83264845	83265845	83268845	83269845
	C	W6D8	83261855	83262855	83263855	83264855	83265855	83268855	83269855
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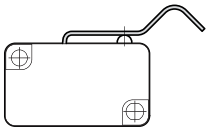
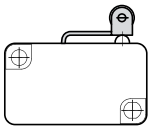
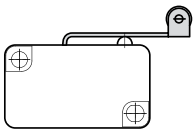
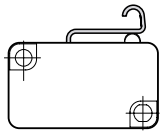
 Lever 260F R22.2 Pos B	I	W1	83261006	83262006	83263006	83264006	83265006	83268006	83269006
	I	W2	83261016	83262016	83263016	83264016	83265016	83268016	83269016
	I	W3	83261026	83262026	83263026	83264026	83265026	83268026	83269026
	I	W3R5	83261036	83262036	83263036	83264036	83265036	83268036	83269036
	I	W6A5	83261046	83262046	83263046	83264046	83265046	83268046	83269046
	I	W6D8	83261056	83262056	83263056	83264056	83265056	83268056	83269056
	I	W7A5	83261066	-	83263066	83264066	83265066	83268066	83269066
	I	X2	83261076	-	83263076	83264076	83265076	83268076	83269076
	I	X3	83261086	-	83263086	83264086	83265086	83268086	83269086
	I	X1	83261096	-	83263096	83264096	83265096	83268096	83269096
	R	W1	83261606	83262606	83263606	83264606	83265606	83268606	83269606
	R	W2	83261616	83262616	83263616	83264616	83265616	83268616	83269616
	R	W3	83261626	83262626	83263626	83264626	83265626	83268626	83269626
	R	W3R5	83261636	83262636	83263636	83264636	83265636	83268636	83269636
	R	W6A5	83261646	83262646	83263646	83264646	83265646	83268646	83269646
	R	W6D8	83261656	83262656	83263656	83264656	83265656	83268656	83269656
	R	W7A5	83261666	-	83263666	83264666	83265666	83268666	83269666
	C	W1	83261806	83262806	83263806	83264806	83265806	83268806	83269806
	C	W2	83261816	83262816	83263816	83264816	83265816	83268816	83269816
	C	W3	83261826	83262826	83263826	83264826	83265826	83268826	83269826
	C	W3R5	83261836	83262836	83263836	83264836	83265836	83268836	83269836
	C	W6A5	83261846	83262846	83263846	83264846	83265846	83268846	83269846
	C	W6D8	83261856	83262856	83263856	83264856	83265856	83268856	83269856
	C	W7A5	83261866	-	83263866	83264866	83265866	83268866	83269866
 Lever 260E R13.7 Pos B	I	W1	83261007	83262007	83263007	83264007	83265007	83268007	83269007
	I	W2	83261017	83262017	83263017	83264017	83265017	83268017	83269017
	I	W3	83261027	83262027	83263027	83264027	83265027	83268027	83269027
	I	W3R5	83261037	83262037	83263037	83264037	83265037	83268037	83269037
	I	W6A5	83261047	83262047	83263047	83264047	83265047	83268047	83269047
	I	W6D8	83261057	83262057	83263057	83264057	83265057	83268057	83269057
	I	W7A5	83261067	-	83263067	83264067	83265067	83268067	83269067
	I	X2	83261077	-	83263077	83264077	83265077	83268077	83269077
	I	X3	83261087	-	83263087	83264087	83265087	83268087	83269087
	I	X1	83261097	-	83263097	83264097	83265097	83268097	83269097
	R	W1	83261607	83262607	83263607	83264607	83265607	83268607	83269607
	R	W2	83261617	83262617	83263617	83264617	83265617	83268617	83269617
	R	W3	83261627	83262627	83263627	83264627	83265627	83268627	83269627
	R	W3R5	83261637	83262637	83263637	83264637	83265637	83268637	83269637
	R	W6A5	83261647	83262647	83263647	83264647	83265647	83268647	83269647
	R	W6D8	83261657	83262657	83263657	83264657	83265657	83268657	83269657
	R	W7A5	83261667	-	83263667	83264667	83265667	83268667	83269667
	C	W1	83261807	83262807	83263807	83264807	83265807	83268807	83269807
	C	W2	83261817	83262817	83263817	83264817	83265817	83268817	83269817
	C	W3	83261827	83262827	83263827	83264827	83265827	83268827	83269827
	C	W3R5	83261837	83262837	83263837	83264837	83265837	83268837	83269837
	C	W6A5	83261847	83262847	83263847	83264847	83265847	83268847	83269847
	C	W6D8	83261857	83262857	83263857	83264857	83265857	83268857	83269857
	C	W7A5	83261867	-	83263867	83264867	83265867	83268867	83269867

Actuators	Function	Type / Connection	83261	83262	83263	83264	83265	83268	83269
 Lever 260E R24.3 Pos B	I	W1	83261008	83262008	83263008	83264008	83265008	83268008	83269008
	I	W2	83261018	83262018	83263018	83264018	83265018	83268018	83269018
	I	W3	83261028	83262028	83263028	83264028	83265028	83268028	83269028
	I	W3R5	83261038	83262038	83263038	83264038	83265038	83268038	83269038
	I	W6A5	83261048	83262048	83263048	83264048	83265048	83268048	83269048
	I	W6D8	83261058	83262058	83263058	83264058	83265058	83268058	83269058
	I	W7A5	83261068	-	83263068	83264068	83265068	83268068	83269068
	I	X2	83261078	-	83263078	83264078	83265078	83268078	83269078
	I	X3	83261088	-	83263088	83264088	83265088	83268088	83269088
	I	X1	83261098	-	83263098	83264098	83265098	83268098	83269098
	R	W1	83261608	83262608	83263608	83264608	83265608	83268608	83269608
	R	W2	83261618	83262618	83263618	83264618	83265618	83268618	83269618
	R	W3	83261628	83262628	83263628	83264628	83265628	83268628	83269628
	R	W3R5	83261638	83262638	83263638	83264638	83265638	83268638	83269638
	R	W6A5	83261648	83262648	83263648	83264648	83265648	83268648	83269648
	R	W6D8	83261658	83262658	83263658	83264658	83265658	83268658	83269658
	R	W7A5	83261668	-	83263668	83264668	83265668	83268668	83269668
	C	W1	83261808	83262808	83263808	83264808	83265808	83268808	83269808
	C	W2	83261818	83262818	83263818	83264818	83265818	83268818	83269818
	C	W3	83261828	83262828	83263828	83264828	83265828	83268828	83269828
	C	W3R5	83261838	83262838	83263838	83264838	83265838	83268838	83269838
	C	W6A5	83261848	83262848	83263848	83264848	83265848	83268848	83269848
	C	W6D8	83261858	83262858	83263858	83264858	83265858	83268858	83269858
	C	W7A5	83261868	-	83263868	83264868	83265868	83268868	83269868
 Lever 260G R13.8 Pos B	I	W1	83261009	83262009	83263009	83264009	83265009	83268009	83269009
	I	W2	83261019	83262019	83263019	83264019	83265019	83268019	83269019
	I	W3	83261029	83262029	83263029	83264029	83265029	83268029	83269029
	I	W3R5	83261039	83262039	83263039	83264039	83265039	83268039	83269039
	I	W6A5	83261049	83262049	83263049	83264049	83265049	83268049	83269049
	I	W6D8	83261059	83262059	83263059	83264059	83265059	83268059	83269059
	I	W7A5	83261069	-	83263069	83264069	83265069	83268069	83269069
	I	X2	83261079	-	83263079	83264079	83265079	83268079	83269079
	I	X3	83261089	-	83263089	83264089	83265089	83268089	83269089
	I	X1	83261099	-	83263099	83264099	83265099	83268099	83269099
	R	W1	83261609	83262609	83263609	83264609	83265609	83268609	83269609
	R	W2	83261619	83262619	83263619	83264619	83265619	83268619	83269619
	R	W3	83261629	83262629	83263629	83264629	83265629	83268629	83269629
	R	W3R5	83261639	83262639	83263639	83264639	83265639	83268639	83269639
	R	W6A5	83261649	83262649	83263649	83264649	83265649	83268649	83269649
	R	W6D8	83261659	83262659	83263659	83264659	83265659	83268659	83269659
	R	W7A5	83261669	-	83263669	83264669	83265669	83268669	83269669
	C	W1	83261809	83262809	83263809	83264809	83265809	83268809	83269809
	C	W2	83261819	83262819	83263819	83264819	83265819	83268819	83269819
	C	W3	83261829	83262829	83263829	83264829	83265829	83268829	83269829
	C	W3R5	83261839	83262839	83263839	83264839	83265839	83268839	83269839
	C	W6A5	83261849	83262849	83263849	83264849	83265849	83268849	83269849
	C	W6D8	83261859	83262859	83263859	83264859	83265859	83268859	83269859
	C	W7A5	83261869	-	83263869	83264869	83265869	83268869	83269869

Installation recommendations

See “Basic technical concepts”

How to order

Use 8 digit part numbers when they are defined

Other cases, precise: Type of microswitch + Function + Connection + Actuator* + Fixing position* - Adaptation*
Example: 83263 I W3 260E R13.7 A SP9328

Crouzet

a company of Schneider Electric

Three-Phase Solid-State Relays

тел.+375447584780 minsk.tiristor.by www.tiristor.by email г.Минск

Crouzet Products / Automation Controls / Solid State Relays / Three-Phase Solid State Relays

PRODUCT FEATURES

- Ratings up to 50 amps per phase at 600Vac
- Epoxy-free design minimizes internal component stress
- 100k-cycle UL508 Endurance rating for enhanced reliability
- No external transient protection required (Internal TVS)
- Back-to-back SCR output for heavy industrial loads
- Available with zero-crossing (resistive loads) or random-fire (inductive loads) outputs
- UL, CSA, TUV Approved, CE Compliant
- EMC compliant for reliable operation in harsh environments
- RoHS Compliant

GN3/GN0 CAD Drawings
GA3/GA0 to GN3/GN0 Cross Reference
CE Manufacturer's Declaration of Conformity
RoHS Information

Three-Phase Solid State Relays no snubber

Three-Phase Solid State Relays with snubber

Current	Output voltage	Input voltage	Termination	Switching	Part number	
25 A	48-530 V AC	180-260 V AC	Screw Terminals	Zero voltage	GN325ASZ	Check Stock
25 A	48-530 V AC	90-140 V AC	Screw Terminals	Zero voltage	GN325BSZ	Check Stock
25 A	48-530 V AC	4-32 V DC	Screw Terminals	Zero voltage	GN325DSZ	Check Stock
25 A	48-530 V AC	18-36 V AC	Screw Terminals	Zero voltage	GN325ESZ	Check Stock
50 A	48-530 V AC	180-260 V AC	Screw Terminals	Zero voltage	GN350ASZ	Check Stock
50 A	48-530 V AC	90-140 V AC	Screw Terminals	Zero voltage	GN350BSZ	Check Stock
50 A	48-530 V AC	4-32 V DC	Screw Terminals	Zero voltage	GN350DSZ	Check Stock
50 A	48-530 V AC	18-36 V AC	Screw Terminals	Zero voltage	GN350ESZ	Check Stock
25 A	48-530 V AC	180-260 V AC	Screw Terminals	Instantaneous	GN325ASR	Check Stock
25 A	48-530 V AC	90-140 V AC	Screw Terminals	Instantaneous	GN325BSR	Check Stock

25 A	48-530 V AC	4-32 V DC	Screw Terminals	Instantaneous	**GN325DSR**	Check Stock
25 A	48-530 V AC	18-36 V AC	Screw Terminals	Instantaneous	**GN325ESR**	Check Stock
50 A	48-530 V AC	180-260 V AC	Screw Terminals	Instantaneous	**GN350ASR**	Check Stock
50 A	48-530 V AC	90-140 V AC	Screw Terminals	Instantaneous	**GN350BSR**	Check Stock
50 A	48-530 V AC	4-32 V DC	Screw Terminals	Instantaneous	**GN350DSR**	Check Stock
50 A	48-530 V AC	18-36 V AC	Screw Terminals	Instantaneous	**GN350ESR**	Check Stock

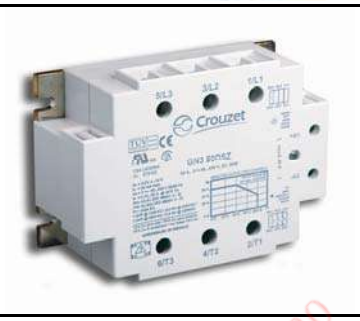
Current	Output voltage	Input voltage	Termination	Switching	Part number	
25 A	48-600 V AC	180-260 V AC	Screw Terminals	Zero voltage	**GN325ALZ**	Check Stock
25 A	48-600 V AC	90-140 V AC	Screw Terminals	Zero voltage	**GN325BLZ**	Check Stock
25 A	48-600 V AC	4-32 V DC	Screw Terminals	Zero voltage	**GN325DLZ**	Check Stock
25 A	48-600 V AC	18-36 V AC	Screw Terminals	Zero voltage	**GN325ELZ**	Check Stock
50 A	48-600 V AC	180-260 V AC	Screw Terminals	Zero voltage	**GN350ALZ**	Check Stock
50 A	48-600 V AC	90-140 V AC	Screw Terminals	Zero voltage	**GN350BLZ**	Check Stock
50 A	48-600 V AC	4-32 V DC	Screw Terminals	Zero voltage	**GN350DLZ**	Check Stock
50 A	48-600 V AC	18-36 V AC	Screw Terminals	Zero voltage	**GN350ELZ**	Check Stock
25 A	48-600 V AC	180-260 V AC	Screw Terminals	Instantaneous	**GN325ALR**	Check Stock
25 A	48-600 V AC	90-140 V AC	Screw Terminals	Instantaneous	**GN325BLR**	Check Stock
25 A	48-600 V AC	4-32 V DC	Screw Terminals	Instantaneous	**GN325DLR**	Check Stock
25 A	48-600 V AC	18-36 V AC	Screw Terminals	Instantaneous	**GN325ELR**	Check Stock
50 A	48-600 V AC	180-260 V AC	Screw Terminals	Instantaneous	**GN350ALR**	Check Stock
50 A	48-600 V AC	90-140 V AC	Screw Terminals	Instantaneous	**GN350BLR**	Check Stock
50 A	48-600 V AC	4-32 V DC	Screw Terminals	Instantaneous	**GN350DLR**	Check Stock
50 A	48-600 V AC	18-36 V AC	Screw Terminals	Instantaneous	**GN350ELR**	Check Stock

г.Минск www.fotorele.net www.tiristor.by email mihail@tut.by тел 4758480

GN3 Series 3 Phase Solid State Relay - DC Input

Crouzet

- ► Three-phase solid-state relay
- ► Ratings up to 50 amps @ 530Vac
- ► DBC substrate for superior thermal performance
- ► Epoxy-free design reduces internal component stress
- ► Back-to-Back dual SCR output for heavy industrial loads
- ► 100k-cycle UL508 endurance rating for enhanced reliability
- ► No external transient protection required (internal TVS)
- ► EMC Compliant for reliable operation in harsh environments
- ► UL/CSA/TUV Approved, CE & RoHS Compliant



Output Specifications

Output Current (40°C)	**25**	**50**
Voltage range (Vrms) (1)	48-600Vac	48-600Vac
Peak Voltage (Vpk , t = I min.)	1100	1100
Off-state leakage mArms (without RC / with RC)	0.06 / 3.0	0.06 / 3.0
Minimum Current (mArms)	100	100
Max. 1 cycle surge current (Apk, Ta = 25ºC)	500	800
Max. 1 second surge current (Apk, Ta = 25ºC)	100	160
Forward voltage drop (Vpk @ Imax, Ta = 40ºC)	1.35	1.35
I^2T (60Hz, ½ cycle)	1040	2600
Rjb (thermal res. Junction to baseplate, °C/W)	0.24	0.12
Static off-state dv/dt (Vµs, Ta = 25ºC)	500	500
HP Ratings at 240V	1	3
HP Ratings at 480V	3	7.5
HP Ratings at 600V	5	10
Min/Max wire size	16/8 AWG	16/8 AWG
Terminal Torque (N-m)	2.4	

Input Specifications

Input voltage	**4-32Vdc**
Drop out voltage	1Vdc
Min. input current (for on-state)	24mA
Maximum input current	35mA
Input Resistance (Ohms)	Current Regulated
Turn-on time (2)	8.33msec
Turn-off time	8.33msec
Min/Max stranded/solid wire	24/14 AWG
Torque (N-m)	1.9

General Characteristics

Operating Temperature (ºC)	-40 to + 80
Storage Temperature (ºC)	-40 to + 100
Input to output isolation	4000Vrms
Input/output to ground isolation	2500Vrms
Input to output capacitance	8pF (typical)
Operating Frequency	47 to 63 Hz
Housing Material	UL 94V0 (self extinguishing)
Weight (grams)	360

Standards of Compliance

CE Compliant with the LVD 73/23/EEC	
UL Recognized per UL 508 and CSA C22.2 no. 14-95	
TUV Certified per EN 60950	
IEC 62314	
IEC 60068-2-6	35mm/10-55Hz
IEC 60068-2-27	15G / 11ms
IEC 61000-4-2 Level 3	Electrostatic Discharge
IEC 61000-4-3 Level 3	Radiated Electromagnetic Noise
IEC 61000-4-4 Level 3	Immunity to Electrically Fast Transients
IEC 61000-4-5 Level 3	Immunity to Electrical Surges
IEC 61000-4-6 Level 3	Conducted Electromagnetic Noise
CISPR 11 Class A	Conducted and Radiated Noise for Industrial Enviroments

Part Numbers

No Snubber

Zero Crossing Output

Rating	Output	Input	Part Number
25 Amp	48-600Vac	4-32Vdc	GN325DLZ
50 Amp	48-600Vac	4-32Vdc	GN350DLZ

Part Numbers

Random Fire Output

Rating	Output	Input	Part Number
25 Amp	48-600Vac	4-32Vdc	GN325DLR
50 Amp	48-600Vac	4-32Vdc	GN350DLR

Part Numbers

Snubber

Zero Crossing Output

Rating	Output	Input	Part Number
25 Amp	48-530Vac	4-32Vdc	GN325DSZ
50 Amp	48-530Vac	4-32Vdc	GN350DSZ

Part Numbers

Random Fire Output

Rating	Output	Input	Part Number
25 Amp	48-530Vac	4-32Vdc	GN325DSR
50 Amp	48-530Vac	4-32Vdc	GN350DSR

Notes:

(1) Voltage range for relay with snubber circuit is 48-530Vac.

(2) Random SSR's turn on in less than 100µs

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GN3 Series 3 Phase Solid State Relay - AC Input

Crouzet

- ► Three-phase solid-state relay
- ► Ratings up to 50 amps @ 530Vac
- ► DBC substrate for superior thermal performance
- ► Epoxy-free design reduces internal component stress
- ► Back-to-Back dual SCR output for heavy industrial loads
- ► 100k-cycle UL508 endurance rating for enhanced reliability
- ► No external transient protection required (internal TVS)
- ► EMC Compliant for reliable operation in harsh environments
- ► UL/CSA/TUV Approved, CE & RoHS Compliant

Output Specifications

Output Current (40°C)	**25**		**50**
Voltage range (Vrms) (1)	48-600Vac		48-600Vac
Peak Voltage (Vpk , t = I min.)	1100		1100
Off-state leakage mArms (without RC / with RC)	0.06 / 3.0		0.06 / 3.0
Minimum Current (mArms)	100		100
Max. 1 cycle surge current (Apk, Ta = 25ºC)	500		800
Max. 1 second surge current (Apk, Ta = 25ºC)	100		160
Forward voltage drop (Vpk @ Imax, Ta = 40ºC)	1.35		1.35
I^2T (60Hz, ½ cycle)	1040		2600
Rjb (thermal res. Junction to baseplate, °C/W)	0.24		0.12
Static off-state dv/dt (Vµs, Ta = 25ºC)	500		500
HP Ratings at 240V	1		3
HP Ratings at 480V	3		7.5
HP Ratings at 600V	5		10
Min/Max wire size	16/8 AWG		16/8 AWG
Terminal Torque (N-m)		2.4	

Input Specifications

Input voltage AC/DC	**18-36V**	**90-140V**	**180-280V**
Drop out voltage AC/DC	2V	10V	10V
Min. input current (for on-state)	15mA	7mA	7mA
Maximum input current	20mA	16mA	20mA
Input Resistance (Ohms)		Current Regulated	
Turn-on time (2)	28mSec	20mSec	20mSec
Turn-off time	30mSec	30mSec	30mSec
Min/Max stranded/solid wire	24/14 AWG	24/14 AWG	24/14 AWG
Terminal Torque (N-m)		1.9	

General Characteristics

Operating Temperature (ºC) (3)	-40 to + 80
Storage Temperature (ºC)	-40 to + 100
Input to output isolation	4000Vrms
Input/output to ground isolation	2500Vrms
Input to output capacitance	8pF (typical)
Operating Frequency	47 to 63 Hz
Housing Material	UL 94V0 (self extinguishing)
Weight (grams)	360

Standards of Compliance

CE Compliant with the LVD 73/23/EEC	
UL Recognized per UL 508 and CSA C22.2 no. 14-95	
TUV Certified per EN 60950	
IEC 62314	
IEC 60068-2-6	35mm/10-55Hz
IEC 60068-2-27	15G / 11ms
IEC 61000-4-2 Level 3	Electrostatic Discharge
IEC 61000-4-3 Level 3	Radiated Electromagnetic Noise
IEC 61000-4-4 Level 3	Immunity to Electrically Fast Transients
IEC 61000-4-5 Level 3	Immunity to Electrical Surges
IEC 61000-4-6 Level 3	Conducted Electromagnetic Noise
CISPR 11 Class A	Conducted and Radiated Noise for Industrial Enviroments

Part Numbers

No Snubber

Zero Crossing Output

Rating	Output	Input	Part Number
25 Amp	48-600Vac	180-260VAC	GN325ALZ
25 Amp	48-600Vac	90-140VAC	GN325BLZ
25 Amp	48-600Vac	18-36Vac	GN325ELZ
50 Amp	48-600Vac	180-260VAC	GN350ALZ
50 Amp	48-600Vac	90-140VAC	GN350BLZ
50 Amp	48-600Vac	18-36Vac	GN350ELZ

Part Numbers

Random Fire Output

Rating	Output	Input	Part Number
25 Amp	48-600Vac	180-260VAC	GN325ALR
25 Amp	48-600Vac	90-140VAC	GN325BLR
25 Amp	48-600Vac	18-36Vac	GN325ELR
50 Amp	48-600Vac	180-260VAC	GN350ALR
50 Amp	48-600Vac	90-140VAC	GN350BLR
50 Amp	48-600Vac	18-36Vac	GN350ELR

Part Numbers

Snubber

Zero Crossing Output

Rating	Output	Input	Part Number
25 Amp	48-530Vac	180-260VAC	GN325ASZ
25 Amp	48-530Vac	90-140VAC	GN325BSZ
25 Amp	48-530Vac	18-36Vac	GN325ESZ
50 Amp	48-530Vac	180-260VAC	GN350ASZ
50 Amp	48-530Vac	90-140VAC	GN350BSZ
50 Amp	48-530Vac	18-36Vac	GN350ESZ

Part Numbers

Random Fire Output

Rating	Output	Input	Part Number
25 Amp	48-530Vac	180-260VAC	GN325ASR
25 Amp	48-530Vac	90-140VAC	GN325BSR
25 Amp	48-530Vac	18-36Vac	GN325ESR
50 Amp	48-530Vac	180-260VAC	GN350ASR
50 Amp	48-530Vac	90-140VAC	GN350BSR
50 Amp	48-530Vac	18-36Vac	GN350ESR

Notes:

(1) Voltage range for relay with snubber circuit is 48-530Vac.

(2) Random AC input SSR's turn-on is 20mS

(3) Operatinting temperature for 180-260VAC input is -20 to +60°C

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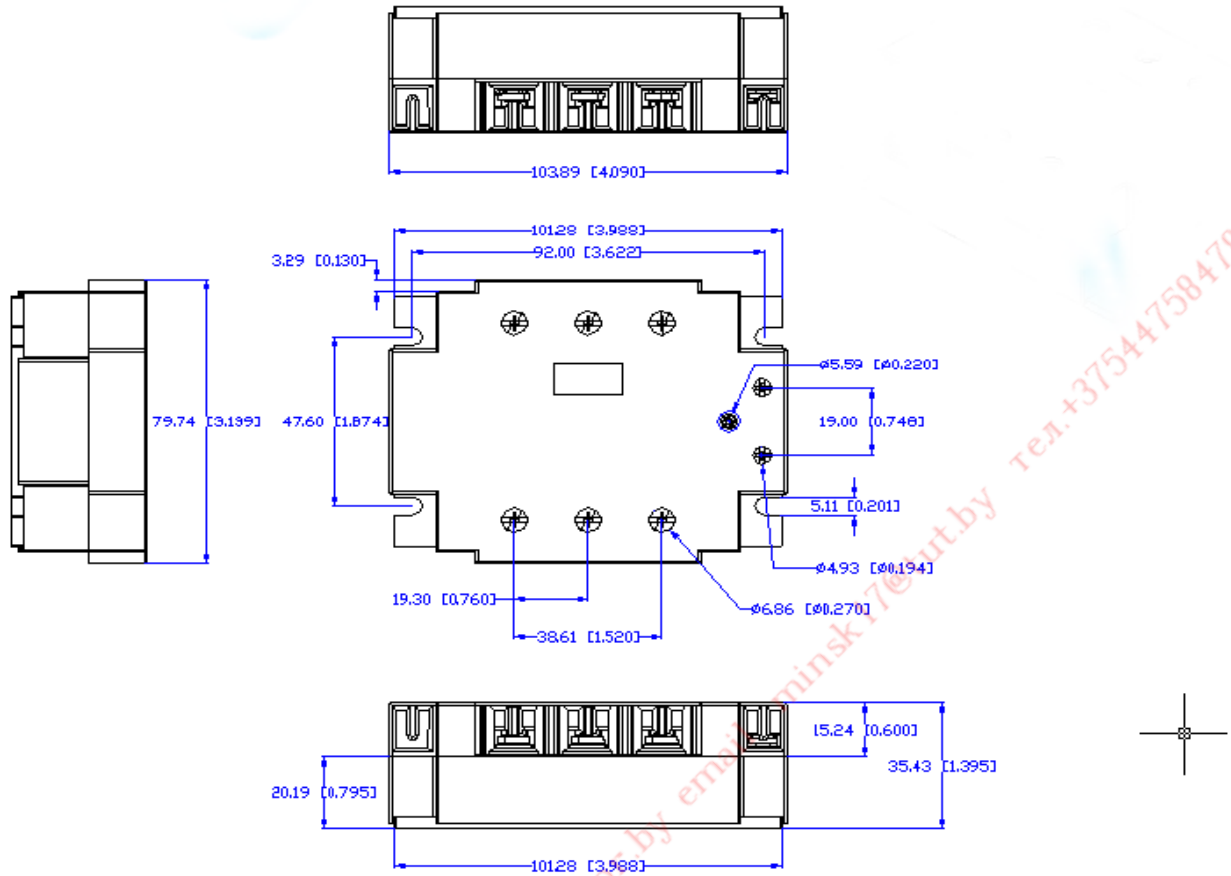
GN3 Dimensional Drawings & Derate Curves

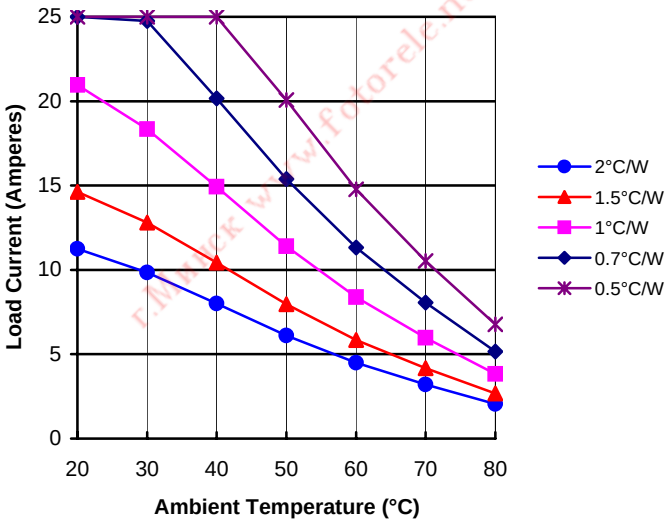
Crouzet

Dimensions mm (inches)

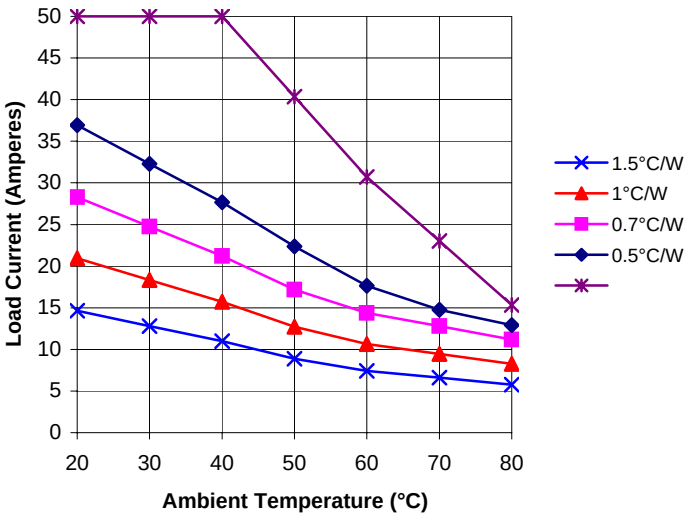


Derate Curves

DERATE CURVES:
GN3 3 Phase SSR 25A



DERATE CURVES:
GN3 3 Phase SSR 50A



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