



■ Timing applications



■ Home appliances



■ Electrical distribution



Microswitches

miniature

V3D

Microswitches miniature V3D

Crouzet on line

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● Activities

- Crouzet offer
- Applications examples
- Adaptation information



■ Crouzet Position Sensors

■ Crouzet also invites you to browse through the complete offer in the form of electronic catalogues:

www.catalogue.crouzet.com

- Technical data
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■ Crouzet eCatalogue

Crouzet

Our Know-How

Automation products adapted to all your applications.

Crouzet, an automation components specialist and subsidiary of Schneider Electric, has been a player on the market for more than 30 years with its microswitches.

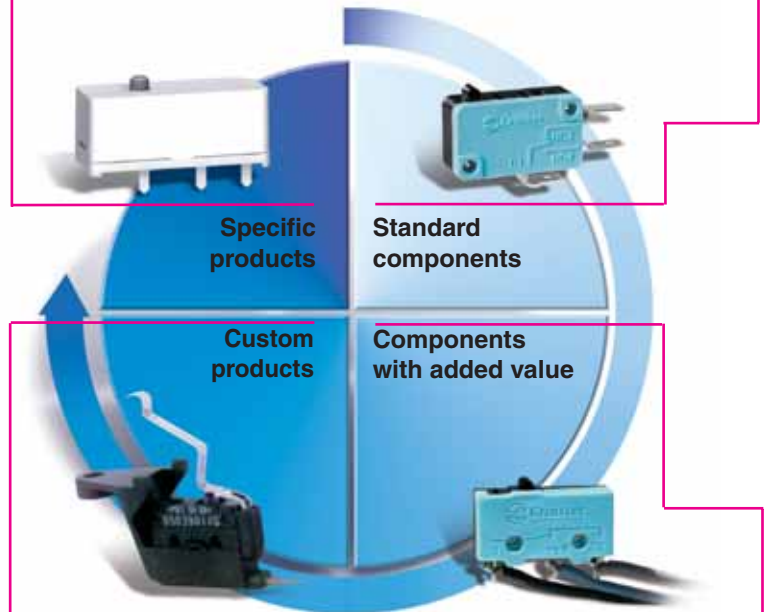
Specialising in innovative sensing, Crouzet manufactures products found in numerous applications.

A specialist in customisation, Crouzet continues to progress by meeting all the needs of parts manufacturers and offering them, depending on the application, a high-quality response and Customer service.

Crouzet is able to propose dedicated custom solutions to suit your design requirements. Customisation is founded on standard innovative, reliable products which can easily be integrated into modules, or on specific developments in partnership with manufacturers.

■ 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

Microswitches miniature V3D

Crouzet

Customisation is our business

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 our environmental management system are certified ISO 9001 and ISO 14001 respectively.

□ Control devices



Even more adaptation for easier final mounting

Crouzet has developed considerable expertise in providing special button shapes which compensate for any faults or positioning drift of the control actuator. Doing away with the need for a lever, and thus an additional accessory, minimises the cost of the function.

□ Connections



A complete electrical function

Special connectors, customised wiring, bundles, dedicated terminals... Crouzet delivers a complete electrical function. You will benefit from shorter lead times and optimised function costs.

□ Seals



Even more solutions for demanding environments

Humid, dusty, gas-filled or corrosive atmospheres affect the reliability of your equipment. There are numerous components available to provide effective protection for your contacts, including caps, boot seals, membranes, sealing resin, wiper seals. Crouzet customises its products to ensure your installations operate correctly.

□ 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. Crouzet's wealth of experience makes designing and debugging your application much easier.

□ Special contacts



The right contact for every environment

It is essential to know the operating environment for your equipment: high or low current, AC or DC, type of load (inductive or resistive), industrial or corrosive atmosphere, occasional or intensive use. We advocate the use of the best metals, such as silver, silver nickel, silver palladium, gold-plated silver, solid gold. Crouzet guarantees the operation of its products in all types of environment.

□ Special fixings



No effort is spared to make mounting easier

Mounting your product easily in its environment is an everyday challenge for the Crouzet teams. Snap-on fixing, screw-fixing, crimping or pins are just a few examples of the numerous solutions available to meet all your requirements.

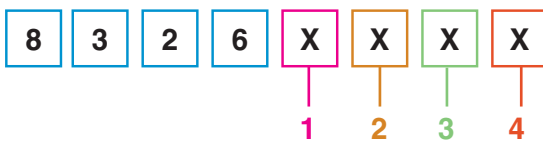
Advantages

- Wide range of switching ratings of 0.1 A to 16 A
- V3 standard size
- Conforms to ENEC (EN 61058) and UL/CSA
- Compliance to RoHS
- Glow wire test withstanding to EN 60335 750° without flame
- 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



1 - Ratings / operating force max

- 1: 16 A / 2 N
- 3: 16 A / 1 N
- 5: 5 A / 0.25 N
- 8: 0.1 A / 1 N
- 9: 0.1 A / 0.25 N

3 - Connections

- 1: W2 solder
- 2: W3 for 6.35 mm clips
- 3: W3R5 for 6.35 mm clips
- 4: W6A5 for 4.8 mm clips

2 - Functions

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

4 - Actuators

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

Basic technical principles

- See our Position Sensors Catalog

Microswitches miniature V3D

- Nominal ratings 0.1 A to 16 A
- Standard V3
- Conforming to ENEC (EN 61058) and UL 1054
- Choice of actuators



W2 connection



W3 connection



W3R5 connection

Main specifications

		83261	83263	83265	83268	83269
Function	Connections					
I (changeover)	W2 - W3 - W3R5 - W6A5	●	●	●	●	●
R (normally closed)	W2 - W3 - W3R5 - W6A5	●	●	●	●	●
C (normally open)	W2 - W3 - W3R5 - W6A5	●	●	●	●	●
Electrical characteristics						
Rating nominal / 250 V AC (A)		16	16	5	0.1*	0.1*
Rating thermal / 250 V AC (A)		20	20	7.5	5	5
Mechanical characteristics						
Maximum operating force (N)		2	1	0.25	1	0.25
Min. Release force (N)		0.5	0.25	0.05	0.25	0.05
Maximum total travel force (N)		3	1.5	0.4	1.5	0.4
Max. permitted overtravel force (N)		20	20	20	20	20
Maximum rest position (mm)		16.2	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	14.7 \pm 0.5
Maximum differential travel (mm)		0.40	0.40	0.40	0.40	0.40
Min. overtravel (mm)		1.1	1.1	1.1	1.1	1.1
Ambient operating temperature (°C)		-20 → +85	-20 → +85	-20 → +85	-20 → +85	-20 → +85
Mechanical life (operations)		>500 000	>1 000 000	>1 000 000	>1 000 000	>1 000 000
Contact gap (mm)		0.4	0.4	0.4	0.4	0.4
Weight (g)		6	6	6	6	6
Conformity to Approvals						
EN 61058-1	Rating for T85°C	16 (4) A 250 V AC	16 (4) A 250 V AC	5 (1) A 250 V AC	0.1 (0.04) A 250 V AC	0.1 (0.04) A 250 V AC
	Electrical life time	50 000	50 000	50 000	50 000	50 000
UL 1054	Rating	16 A 1/2 HP 125 / 250 V AC	16 A 1/2 HP 125 / 250 V AC	5 A 1/6 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
	Electrical life time	6 000	6 000	6 000	6 000	6 000

Comments

* Minimum possible load 1mA 4 V

Additional specifications

Components

Material

- Housing/cover: polyester UL 94V0
- Button: polyester UL94V0
- Blade/spring: copper alloy
- Contacts: silver alloy or gold plated
- Actuators: stainless steel
- Glass filled polyamide roller

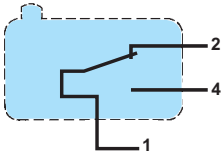
Product adaptations



- Specific levers
- Specific connections
- Specific fixing
- High operating temperature

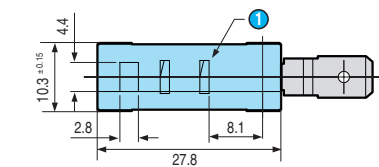
Principle

Single break changeover switch

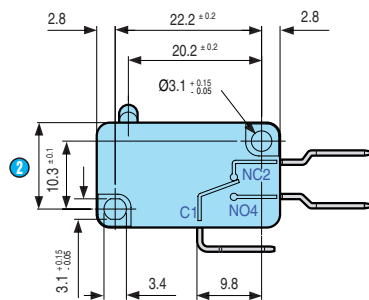


Dimensions (mm)

→ Product



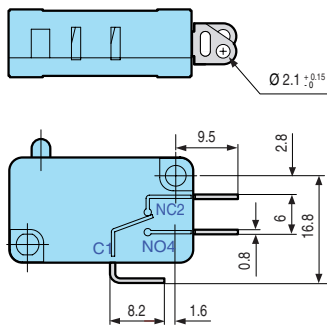
1 lever fixing position B



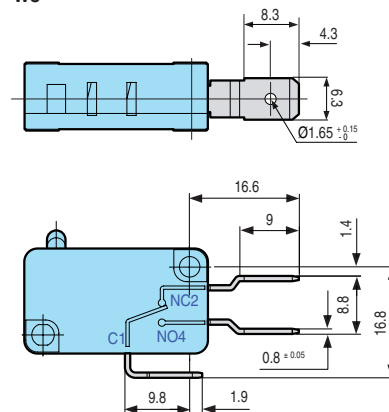
2 OL 13.2 max

→ Connections

W2



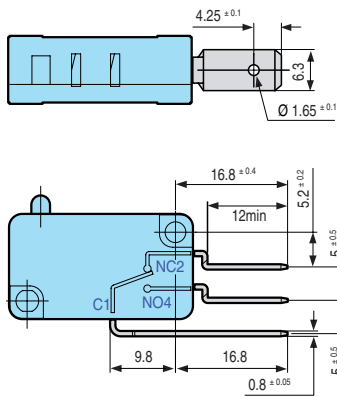
W3



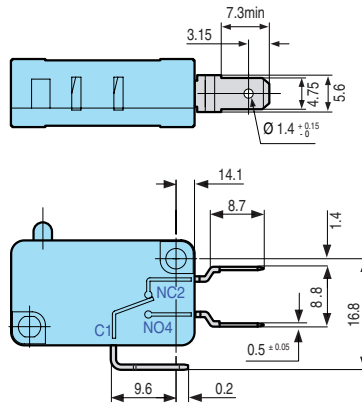
Microswitches miniature V3D

Dimensions (mm)

W3R5



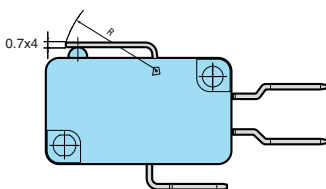
W6A5



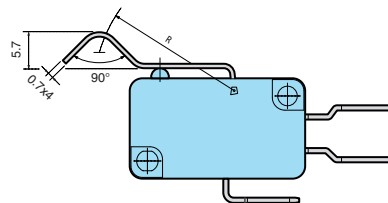
Actuators

→ Levers

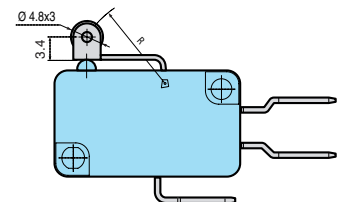
260A






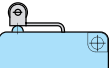
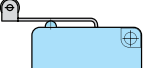
260F



260E

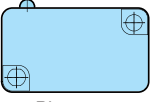
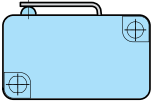
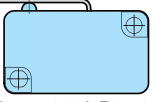
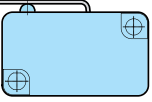


Actuators and fixing positions

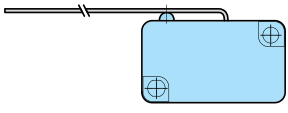
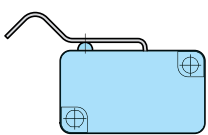
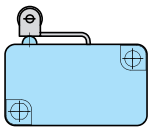
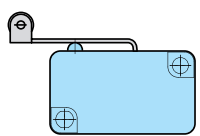
		Length of actuator (mm)	Maximum operating force (N)	Minimum release force (N)	Tripping point (mm)	Minimum overtravel (mm)	Maximum differential travel (mm)	Maximum total travel (mm)
 Lever 260A R14.2 Pos B	83261	14.2	2	0.5	15.4 \pm 0.5	1.3 \pm 0.5	0.4	2.5
	83263	14.2	1	0.2	15.4 \pm 0.5	1.3 \pm 0.5	0.4	2.5
	83265	14.2	0.25	0.05	15.4 \pm 0.5	1.3 \pm 0.5	0.4	2.5
	83268	14.2	1	0.2	15.4 \pm 0.5	1.3 \pm 0.5	0.4	2.5
	83269	14.2	0.25	0.05	15.4 \pm 0.5	1.3 \pm 0.5	0.4	2.5
 Lever 260A R25.4 Pos B	83261	25.4	1	0.25	15.4 \pm 1	2.5 \pm 1	0.8	4.9
	83263	25.4	0.5	0.1	15.4 \pm 1	2.5 \pm 1	0.8	4.9
	83265	25.4	0.13	0.02	15.4 \pm 1	2.5 \pm 1	0.8	4.9
	83268	25.4	0.5	0.1	15.4 \pm 1	2.5 \pm 1	0.8	4.9
	83269	25.4	0.13	0.02	15.4 \pm 1	2.5 \pm 1	0.8	4.9
 Lever 260A R40 Pos B	83261	40	0.6	0.15	15.4 \pm 1.8	4.1 \pm 1.8	1.3	8
	83263	40	0.3	0.06	15.4 \pm 1.8	4.1 \pm 1.8	1.3	8
	83265	40	0.08	0.01	15.4 \pm 1.8	4.1 \pm 1.8	1.3	8
	83268	40	0.3	0.06	15.4 \pm 1.8	4.1 \pm 1.8	1.3	8
	83269	40	0.08	0.01	15.4 \pm 1.8	4.1 \pm 1.8	1.3	8
 Lever 260A R60 Pos B	83261	60	0.28	0.07	15.4 \pm 2.5	6.3 \pm 2.5	2.8	12.8
	83263	60	0.14	0.03	15.4 \pm 2.5	6.3 \pm 2.5	2.8	12.8
	83265	60	0.04	0.01	15.4 \pm 2.5	6.3 \pm 2.5	2.8	12.8
	83268	60	0.14	0.03	15.4 \pm 2.5	6.3 \pm 2.5	2.8	12.8
	83269	60	0.04	0.01	15.4 \pm 2.5	6.3 \pm 2.5	2.8	12.8
 Lever 260F R22.2 Pos B	83261	22.2	1.06	0.26	20.4 \pm 0.7	2.3 \pm 0.7	0.75	4.5
	83263	22.2	0.53	0.1	20.4 \pm 0.7	2.3 \pm 0.7	0.75	4.5
	83265	22.2	0.13	0.02	20.4 \pm 0.7	2.3 \pm 0.7	0.75	4.5
	83268	22.2	0.53	0.1	20.4 \pm 0.7	2.3 \pm 0.7	0.75	4.5
	83269	22.2	0.13	0.02	20.4 \pm 0.7	2.3 \pm 0.7	0.75	4.5
 Lever 260E R13.7 Pos B	83261	13.7	2	0.5	20.5 \pm 0.8	1.3 \pm 0.8	0.4	2.5
	83263	13.7	1	0.2	20.5 \pm 0.8	1.3 \pm 0.8	0.4	2.5
	83265	13.7	0.25	0.05	20.5 \pm 0.8	1.3 \pm 0.8	0.4	2.5
	83268	13.7	1	0.2	20.5 \pm 0.8	1.3 \pm 0.8	0.4	2.5
	83269	13.7	0.25	0.05	20.5 \pm 0.8	1.3 \pm 0.8	0.4	2.5
 Lever 260E R24.3 Pos B	83261	24.3	0.96	0.24	20.5 \pm 1.5	2.5 \pm 1.5	0.83	4.9
	83263	24.3	0.48	0.09	20.5 \pm 1.5	2.5 \pm 1.5	0.83	4.9
	83265	24.3	0.12	0.02	20.5 \pm 1.5	2.5 \pm 1.5	0.83	4.9
	83268	24.3	0.48	0.09	20.5 \pm 1.5	2.5 \pm 1.5	0.83	4.9
	83269	24.3	0.12	0.02	20.5 \pm 1.5	2.5 \pm 1.5	0.83	4.9

Microswitches miniature V3D

Selection guide

			Rating / Force		16 A / 2 N	16 A / 1 N	5 A / 0.25 N	0.1 A / 1 N	0.1 A / 0.25 N
			Type		83261	83263	83265	83268	83269
Actuators	Function	Connection							
 <p>Plunger</p>	I	W2	83261011	83263011	83265011	83268011	83269011		
	I	W3	83261021	83263021	83265021	83268021	83269021		
	I	W3R5	83261031	83263031	83265031	83268031	83269031		
	I	W6A5	83261041	83263041	83265041	83268041	83269041		
	R	W2	83261611	83263611	83265611	83268611	83269611		
	R	W3	83261621	83263621	83265621	83268621	83269621		
	R	W3R5	83261631	83263631	83265631	83268631	83269631		
	R	W6A5	83261641	83263641	83265641	83268641	83269641		
	C	W2	83261811	83263811	83265811	83268811	83269811		
	C	W3	83261821	83263821	83265821	83268821	83269821		
	C	W3R5	83261831	83263831	83265831	83268831	83269831		
	C	W6A5	83261841	83263841	83265841	83268841	83269841		
 <p>Lever 260A R14.2</p>	I	W2	83261012	83263012	83265012	83268012	83269012		
	I	W3	83261022	83263022	83265022	83268022	83269022		
	I	W3R5	83261032	83263032	83265032	83268032	83269032		
	I	W6A5	83261042	83263042	83265042	83268042	83269042		
	R	W2	83261612	83263612	83265612	83268612	83269612		
	R	W3	83261622	83263622	83265622	83268622	83269622		
	R	W3R5	83261632	83263632	83265632	83268632	83269632		
	R	W6A5	83261642	83263642	83265642	83268642	83269642		
	C	W2	83261812	83263812	83265812	83268812	83269812		
	C	W3	83261822	83263822	83265822	83268822	83269822		
	C	W3R5	83261832	83263832	83265832	83268832	83269832		
	C	W6A5	83261842	83263842	83265842	83268842	83269842		
 <p>Lever 260A R25.4</p>	I	W2	83261013	83263013	83265013	83268013	83269013		
	I	W3	83261023	83263023	83265023	83268023	83269023		
	I	W3R5	83261033	83263033	83265033	83268033	83269033		
	I	W6A5	83261043	83263043	83265043	83268043	83269043		
	R	W2	83261613	83263613	83265613	83268613	83269613		
	R	W3	83261623	83263623	83265623	83268623	83269623		
	R	W3R5	83261633	83263633	83265633	83268633	83269633		
	R	W6A5	83261643	83263643	83265643	83268643	83269643		
	C	W2	83261813	83263813	83265813	83268813	83269813		
	C	W3	83261823	83263823	83265823	83268823	83269823		
	C	W3R5	83261833	83263833	83265833	83268833	83269833		
	C	W6A5	83261843	83263843	83265843	83268843	83269843		
 <p>Lever 260A R40</p>	I	W2	83261014	83263014	83265014	83268014	83269014		
	I	W3	83261024	83263024	83265024	83268024	83269024		
	I	W3R5	83261034	83263034	83265034	83268034	83269034		
	I	W6A5	83261044	83263044	83265044	83268044	83269044		
	R	W2	83261614	83263614	83265614	83268614	83269614		
	R	W3	83261624	83263624	83265624	83268624	83269624		
	R	W3R5	83261634	83263634	83265634	83268634	83269634		
	R	W6A5	83261644	83263644	83265644	83268644	83269644		
	C	W2	83261814	83263814	83265814	83268814	83269814		
	C	W3	83261824	83263824	83265824	83268824	83269824		
	C	W3R5	83261834	83263834	83265834	83268834	83269834		
	C	W6A5	83261844	83263844	83265844	83268844	83269844		



Actuators	Rating / Force		16 A / 2 N	16 A / 1 N	5 A / 0.25 N	0.1 A / 1 N	0.1 A / 0.25 N
	Function	Connection	83261	83263	83265	83268	83269
 Lever 260A R60	I	W2	83261015	83263015	83265015	83268015	83269015
	I	W3	83261025	83263025	83265025	83268025	83269025
	I	W3R5	83261035	83263035	83265035	83268035	83269035
	I	W6A5	83261045	83263045	83265045	83268045	83269045
	R	W2	83261615	83263615	83265615	83268615	83269615
	R	W3	83261625	83263625	83265625	83268625	83269625
	R	W3R5	83261635	83263635	83265635	83268635	83269635
	R	W6A5	83261645	83263645	83265645	83268645	83269645
	C	W2	83261815	83263815	83265815	83268815	83269815
	C	W3	83261825	83263825	83265825	83268825	83269825
	C	W3R5	83261835	83263835	83265835	83268835	83269835
	C	W6A5	83261845	83263845	83265845	83268845	83269845
 Lever 260F R22	I	W2	83261016	83263016	83265016	83268016	83269016
	I	W3	83261026	83263026	83265026	83268026	83269026
	I	W3R5	83261036	83263036	83265036	83268036	83269036
	I	W6A5	83261046	83263046	83265046	83268046	83269046
	R	W2	83261616	83263616	83265616	83268616	83269616
	R	W3	83261626	83263626	83265626	83268626	83269626
	R	W3R5	83261636	83263636	83265636	83268636	83269636
	R	W6A5	83261646	83263646	83265646	83268646	83269646
	C	W2	83261816	83263816	83265816	83268816	83269816
	C	W3	83261826	83263826	83265826	83268826	83269826
	C	W3R5	83261836	83263836	83265836	83268836	83269836
	C	W6A5	83261846	83263846	83265846	83268846	83269846
 Lever 260E R13.7	I	W2	83261017	83263017	83265017	83268017	83269017
	I	W3	83261027	83263027	83265027	83268027	83269027
	I	W3R5	83261037	83263037	83265037	83268037	83269037
	I	W6A5	83261047	83263047	83265047	83268047	83269047
	R	W2	83261617	83263617	83265617	83268617	83269617
	R	W3	83261627	83263627	83265627	83268627	83269627
	R	W3R5	83261637	83263637	83265637	83268637	83269637
	R	W6A5	83261647	83263647	83265647	83268647	83269647
	C	W2	83261817	83263817	83265817	83268817	83269817
	C	W3	83261827	83263827	83265827	83268827	83269827
	C	W3R5	83261837	83263837	83265837	83268837	83269837
	C	W6A5	83261847	83263847	83265847	83268847	83269847
 Lever 260E R24.3	I	W2	83261018	83263018	83265018	83268018	83269018
	I	W3	83261028	83263028	83265028	83268028	83269028
	I	W3R5	83261038	83263038	83265038	83268038	83269038
	I	W6A5	83261048	83263048	83265048	83268048	83269048
	R	W2	83261618	83263618	83265618	83268618	83269618
	R	W3	83261628	83263628	83265628	83268628	83269628
	R	W3R5	83261638	83263638	83265638	83268638	83269638
	R	W6A5	83261648	83263648	83265648	83268648	83269648
	C	W2	83261818	83263818	83265818	83268818	83269818
	C	W3	83261828	83263828	83265828	83268828	83269828
	C	W3R5	83261838	83263838	83265838	83268838	83269838
	C	W6A5	83261848	83263848	83265848	83268848	83269848

Note:

Function: **I** = Changeover - **R** = Normally closed - **C** = Normally open

Connection: **W2** = solder - **W3** = for 6.35 mm clips - **W3R5** = for 6.35 mm clips - **W6A5** = for 4.8 mm clips