

# Magnetic contacts

## Product guide



# Magnetic contacts

UTC Fire & Security is a global leader in fire safety and security solutions that help protect people, property and assets the world over. Through a broad portfolio of innovative products, we offer security solutions to countless customers worldwide.

This document provides a comprehensive overview of our magnetic contacts with its features and the applications they are most suited for.

Magnetic contacts form a circuit between a door and doorframe or between a window and sill.

Whenever an alarm system is activated and a window or door is opened, the circuit is broken, generating an alarm. Magnetic contacts are reliable sensing devices for sensing the opening and closing of doors and windows.

They consist of two parts: reed switch and magnet.

## Major benefits of UTC magnetic contacts

- The strength and type of components of magnetic contacts determine the performance. UTC magnetic contacts are used in different challenging environments reducing the risk on nuisance alarms.
- UTC magnetic contacts are developed to last long and provide high reliability thanks to the specific reed switches that are used.

Since every installation has its own unique challenges, UTC offers a wide array of magnetic contacts to address specific issues. Depending on type of installation, type of application, ...

- Surface mount page 3 – 7
- Recessed mount page 8 – 11
- Overhead contacts page 12 – 13
- Special applications page 14 – 15

# Surface mount

The reed switch and magnet are mounted parallel to each other using the surface-mount housing.

Surface-mounted contacts should be satisfactory for application in such areas as steel fire doors, file cabinets, etc. Customers should be reminded to allow sufficient safety factor in installation.

## Rules of thumb

Gap on steel is approximately 1/2 the distance achieved in air.

Space switch and magnet at approximately 25% of rated gap in air for safety factor.

Use a spacer whenever it is practical. If only one spacer is used, mount it under the magnet.

Application on steel does not “drain” magnet but it does reduce the magnetic field.

## Contact types

CO = Change Over









NC = Normally Closed

NO = Normally Open

DPDT = Double Pole Double Throw

SPDT = Single Pole Double Throw










## Surface mount – Wired

	Code	Gap mm	Connection	Contact type	Colour	EN	Incert	VdS	NIFA2P	IMQ
	1085*-NCVB6	16	4x180	NC	White	EN2				
	DC101	15	4x200	NC	White	EN2				
	DC101B	15	4x200	NC	Brown	EN2				
	DC101-D	15	4x200	NC	White					






## Surface mount – Wired (ctd.)

	Code	Gap mm	Connection	Contact type	Colour	EN	Incert	VdS	NFA2P	IMQ
	DC101R4.7	15	4x250	NC	White	EN2				
	DC101S60	15	4x600	NC	White	EN2				
	DC103	15-31	4x200	NC	White	EN2				
	DC141	25	4x200	NC	White					
	DC148	12	4x200	NC	White	EN3				
	DC148R4.7	12	4x200	NC	White	EN3				
	DC148S60	12	4x600	NC	White	EN3				
	IM1440FENF01BE2	15	4x100	NC	White					
	IM1440FENF02BC	15	4x200	NC	White					
	IM1440FENF05BC	15	4x500	NC	White					
	IM1640PAG	35	4x60	NC	White					
	IM1640PAG01JB	35	4x100	NC	White					
	IM1640PAGELK	35	4x60	NC	White					

## Surface mount – Wired (ctd.)

	Code	Gap mm	Connection	Contact type	Colour	EN	Incert	VdS	NFA2P	IMQ
	IM1640PSG	35	4x85	NC	White					
	IM1820TINF*8	14	2x85	NC	White					
	IM1920TINF*8	21	2x85	NC	White					
	MM108	50	4x50	NC	Alu					
	MM115	15	4x200	NC	White					
	MM440	15	4x85	NC	White					






## Surface mount – Terminal

	Code	Gap mm	Connection	Contact type	Colour	EN	Incert	VdS	NFA2P	IMQ
	1044TW-N	76	2x screw term.	SPDT	White					
	1084TW-G	51	3x screw term.	SPDT	Grey					
	1085T-N-3K3	19	2x screw term.	NC	White					
	1087T-N	19	3x screw term.	SPDT	White					

## Surface mount – Terminal (ctd.)

	Code	Gap mm	Connection	Contact type	Colour	EN	Incert	VdS	NFA2P	IMQ
	1087TW-N	38	3x screw term.	SPDT	White					
	DC102	18	2x screw term.	NC	White	EN1				
	DC102B	18	2x screw term.	NC	Brown					
	DC102R4.7	18	2x screw term.	NC	White					
	DC104	9–31	3x screw term.	CO	White					
	DC116	31	3x screw term.	NC	White					
	DC123	18	3x screw term.	CO	White					
	DC134	37	3x screw term.	NC	White					
	DC137	37	3x screw term.	NC	White					
	DC142	75	3x screw term.	NC	White					
	DC143	9–31	3x screw term.	CO	White					
	DC201	37	2x screw term.	NC	White					
	IM9700FENFBB	25	6x screw term.	NC	White					





## Surface mount – Terminal (ctd.)

	Code	Gap mm	Connection	Contact type	Colour	EN	Incert	VdS	NFA2P	IMQ
	MM101	14	5x screw term.	NC	White					
	MM102	20	5x screw term.	NC	White					
	MM102B	20	5x screw term.	NC	Brown					
	MM201	25	6x screw term.	NC	White					

# Recessed mount














Recessed magnetic door switches are made with the same magnetic reed switches used for surface-mount alarm contacts. Instead of a rectangular housing, recessed alarm contacts have a cylindrical case. This makes them easy to install, just by drilling a hole.

## Recessed mount – Wired

	Code	Gap mm	Connection	Contact type	Colour	Diameter mm	EN	Incert	VdS	NFA2P	IMQ
	1074D-N	13	2x30	DPDT	White	9					
	1075-N-3K3	13	2x200	NC	White	9					
	1076D-G	9	2x30	DPDT	Grey	25,4					
	1076D-N	9	2x30	DPDT	White	25,4					
	1078-G	13	2x30	NC	Grey	25,4					
	1078-N	13	2x30	NC	White	25,4					
	1078W-G	25	2x30	NC	Grey	25,4					
	1078W-N	25	2x30	NC	White	25,4					
	DC106	12	4x200	NC	White	9,5	EN2				
	DC106-D	12	4x200	NC	White	9,5					








## Recessed mount – Wired (ctd.)

	Code	Gap mm	Connection	Contact type	Colour	Diameter mm	EN	Incert	VcS	NFA2P	IMQ
	DC106R4.7	12	4x200	NC	White	9,5	EN2	↔			
	DC106S9	12	4x300	NC	White	9,5		↔			
	DC107	9	4x200	NC	White	19	EN2	↔			
	DC1076	9	4x200	NC	White	19	EN2				
	DC1076-6M	9	4x600	NC	White	19					
	DC107R4.7	9	4x250	NC	White	19	EN2	↔			
	DC107S60	9	4x600	NC	White	19	EN2	↔			
	DC120	18	4x250	NC	White	9,5	EN2	↔			
	DC120S60	18	4x600	NC	White	9,5	EN2	↔			
	DC121	12	4x200	NC	White	9,5		↔			
	DC121S60	12	4x600	NC	White	9,5		↔			
	DC124	9	5x200	CO	White	19	EN2	↔			
	DC127	31	4x200	NC	White	9,5		↔			




## Recessed mount – Wired (ctd.)

	Code	Gap mm	Connection	Contact type	Colour	Diameter mm	EN	Incert	VdS	NFA2P	IMQ
	DC128	15	4x200	NC	White	8	EN2		VdS C		
	DC128R4.7	15	4x200	NC	White	8	EN2		VdS C		
	DC128S60	15	4x600	NC	White	8	EN2		VdS C		
	DC138	12	4x200	NC	White	19	EN3		VdS C		
	DC138R4.7	12	4x200	NC	White	19	EN3		VdS C		
	DC138S60	12	4x600	NC	White	19	EN3		VdS C		
	DC555	26	4x200	NC	White	64	X				
	DC888	18	4x200	NC	White	19,1	X				
	IM1340FENF01BC2	16	4x100	NC	White	8	X				
	IM1340FENF02BC	16	4x200	NC	White	8	X				
	IM1340TINF01BE2	16	4x100	NC	White	8	X				
	IM1340TINF02BC	16	4x200	NC	White	8	X				
	IM1340TINF05BC	16	4x500	NC	White	8	X				

## Recessed mount – Wired (ctd.)

	Code	Gap mm	Connection	Contact type	Colour	Diameter mm	EN	Incert	VdS	NFA2P	IMQ
	MM110	15	4x200	NC	White	8	X				
	MM340	16	4x100	NC	White	8	X				
	R1125-N	13	2X30	NC	White	9	X				
	R1125W-N	22	2X30	NC	White	9	X				

## Recessed mount – Terminal

	Code	Gap mm	Connection	Contact type	Colour	Diameter mm	EN	Incert	VdS	NFA2P	IMQ
	1078CT-N	9	2x screw term.	NC	White	19					
	R1125T-N	13	2x screw term.	NC	White	9					
	R1125TW-N	22	2x screw term.	NC	White	9					

# Overhead contacts

For rigorous environments of commercial and industrial applications overhead contacts are often used.

The low profile housing of the floor mount unit, containing reed switches, are encased in a specific potting material, preventing damage due to moisture or humidity.

Heavy duty versions are also available for heavy doors, shutters and gates.

## Overhead contacts – Wired

	Code	Gap mm	Connection	Contact type	Colour	EN	Incert	VdS	NFA2P	IMQ
	2202AUstar-LCXB	76	4x90	NC	Alu					
	AMK4SLSA	16	4x100	NC/NO	Grey			VdS C		
	DC108	75	4x200	NC	Alu	EN2				
	DC108R4.7	75	4x200	NC	Alu	EN3				
	DC109	75	4x200	NC	Alu					
	DC110	19–63	5x200	CO	Alu					
	DC111	5–15	6x200	CO	Alu	EN3		VdS C		
	DC115	9–62	5x200	CO	Alu	EN2		VdS B		
	DC118	75	4x200	NC	Alu	EN2				

## Overhead contacts – Wired (ctd.)




	Code	Gap mm	Connection	Contact type	Colour	EN	Incert	VdS	NFA2P	IMQ
	DC140	75	4x200	NC	Alu					
	DC408	34	4x200	NC	Grey	EN3				
	DC408R4.7	34	4x200	NC	Grey	EN3				
	IM1740FENF*81	54	4x60	NC	Alu					
	IM1740FENF012	54	4x60	NC	Alu					
	IM1741TINF012	54	4x60	NC	Alu					
	MM106	50	4x45	NC	Alu					
	MM740	54	4x60	NC	Alu					
	SC2202SAAAB01	54	4x60	NC	Alu					
	SC2202SAAAB02	54	4x200	NC	Alu					

# Special applications

## Special applications – Wired

	Code	Gap mm	Connection	Contact type	Colour	Diameter mm	EN	Incert	VdS	NFA2P	IMQ
	DC105	12	4x250mm	NC	White	6,4	EN2				
	DC105-D	12	4x250mm	NC	White	6,4			VdS <sub>B</sub>		
	DC105S8	12	4x250mm	NC	White	6,4	EN2				
	DC113	N/A	4x200	NC	White						
	DC114	N/A	4x200	NC	White						
	DC301	N/A	3x180	CO	Black						
	DC501	N/A	4x200	NC	White						
	EMK46ATLSA	22	4x200	NC	White	8			VdS <sub>B</sub>		
	EMK46ATLSA4	22	4x400	NC	White	8			VdS <sub>B</sub>		
	EMK46ATLSA4B	22	4x400	NC	Brown	8			VdS <sub>B</sub>		
	EMK46ATLSA6	22	4x600	NC	White	8			VdS <sub>B</sub>		
	EMK46ATLSAB	22	4x200	NC	Brown	8			VdS <sub>B</sub>		
	EMK46SNAT	22	4x400	NC	White	8			VdS <sub>C</sub>		

## Special applications – Wired (ctd.)

	Code	Gap mm	Connection	Contact type	Colour	Diameter mm	EN	Incert	VdS	NFA2P	IMQ
	EMK48ATLSA4	22	4x400	NC	White	8			VdS <sub>B</sub>		
	EMK48ATLSA6	22	4x600	NC	White	8			VdS <sub>B</sub>		
	MK46-AD	22	2x400	NO	White	8			VdS <sub>B</sub>		

