

## Multimode Relay MT

2 / 3 pole 10 A, DC- or AC-coil



F0161-A

### Features

- 2 C/O or 3 C/O contacts
- Cadmium-free contacts
- DC and AC coils
- Mechanical indicator as standard
- Electrical indicator
- New test system with front operated finger protected push-to-test button and integral locking test tab

### Applications

Mechanical engineering, plant control



Technical data of approved types on request

### Contact data

Configuration	2 C/O contact or 3 C/O contact	
Type of contact	single contacts	bifurcated contacts
Rated current	10 A	4 A
Rated voltage / max. breaking voltage AC	250 Vac / 440 Vac	
Maximum breaking capacity AC	2500 VA	500 VA
Make current (max. 4 s at duty cycle 10%)	20 A	8 A
Contact material	AgNi 90/10	
Minimum contact load	24 V, 10 mA	20 mV, 1 mA gold plated

### Contact ratings

Type	Load	Operations	Standard
MT321	10 A, 250 Vac, C/O contact	1x10 <sup>5</sup>	VDE 0435

### Coil data

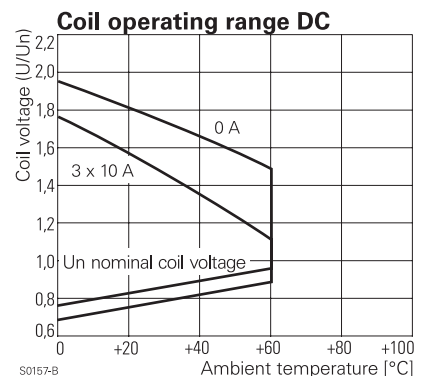
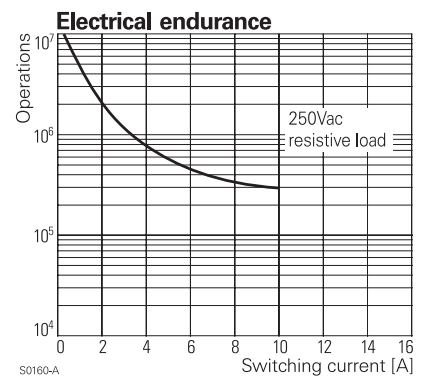
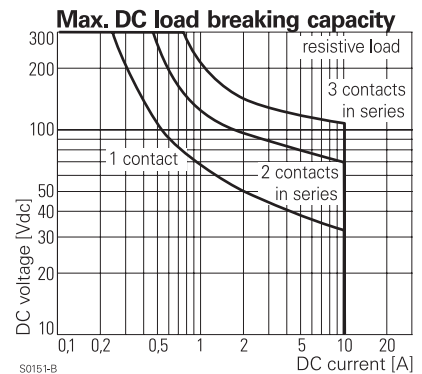
Nominal voltage	DC coil	6...220 Vdc
	AC coil	6...230 Vac
Nominal coil power	DC coil	typ. 1.2 W
	AC coil	typ. 2.3 VA
Operate category	1 / a	

### Coil versions, DC-coil

Coil code standard	PD*	Nominal voltage Vdc	Pull-in voltage Vdc	Release voltage Vdc	Coil resistance Ω	Coil current mA
006	0A6	6	4.5	0.6	32±10%	187.5
012	0B2	12	9.0	1.2	110±10%	109.1
<b>024</b>	<b>0C4</b>	<b>24</b>	<b>18.0</b>	<b>2.4</b>	<b>475±10%</b>	<b>50.5</b>
048	0E8	48	36.0	4.8	2000±10%	24.0
060	0G0	60	45.0	6.0	2850±10%	21.1
110	1B0	110	82.5	11.5	10000±12%	11.0
220	2C0	220	165.0	22.0	40000±15%	5.5

All figures are given for coil without preenergization, at ambient temperature +20 °C

\* Protection diode PD; standard polarity: 2-pole relays: +2 / -7, 3-pole relays: +2 / -10



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### Coil versions, AC-coil

Coil code	Nominal voltage Vac	Pull-in voltage Vac	Release voltage Vac	Maximum voltage Vac	Coil resistance $\Omega$	Coil current mA
006	6	4.8	2.4	7.8	$5.3 \pm 10\%$	381.7
012	12	9.6	4.8	15.6	$24 \pm 10\%$	182.5
<b>024</b>	<b>24</b>	<b>19.2</b>	<b>9.6</b>	<b>31.2</b>	<b><math>86 \pm 10\%</math></b>	<b>94.2</b>
048	48	38.4	19.2	62.4	$345 \pm 10\%$	47.5
060	60	48.0	24.0	78.0	$544 \pm 10\%$	37.8
115	115	92.0	46.0	149.5	$2000 \pm 10\%$	20.6
<b>230</b>	<b>230</b>	<b>184.0</b>	<b>92.0</b>	<b>299.0</b>	<b><math>8300 \pm 12\%</math></b>	<b>10.1</b>

All figures are given for coil without preenergization, at ambient temperature +20 °C

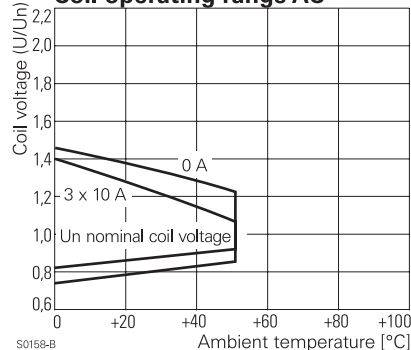
### Insulation

Dielectric strength	coil-contacts	2500 V <sub>rms</sub>
	open contact circuit	1500 V <sub>rms</sub>
	adjacent contacts	2500 V <sub>rms</sub>
Clearance / creepage		2.8 / 4 mm
Insulation to IEC 60664		
Voltage rating		250 V
Pollution degree		3
Overvoltage category		III
Insulation to VDE 0110b (2/79)		C / 250
Tracking resistance of relay base		CTI 175

### Other data

Flammability class according to UL 94		V-0
Ambient temperature	DC-coil	-45...+60 °C
	AC-coil	-45...+50 °C
Mechanical life		>20x10 <sup>6</sup> operations
Max. switching rate at rated- / minimum load		20 min <sup>-1</sup> / 100 min <sup>-1</sup>
Operate- / release time		12 / 5 ms
Bounce time		4 ms
Vibration resistance N/O / N/C contact		>5 / 2 g
Shock resistance (function) N/O contact / N/C contact		>50 / 10 g
Category of protection (IEC 61810)		RT 1 - dust protected
Relay weight		80 g
Packaging unit		25 pcs.
Accessories		see accessories MT

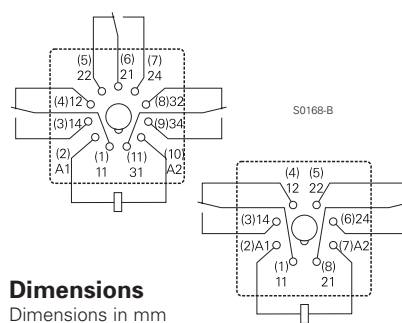
### Coil operating range AC



S0158-B

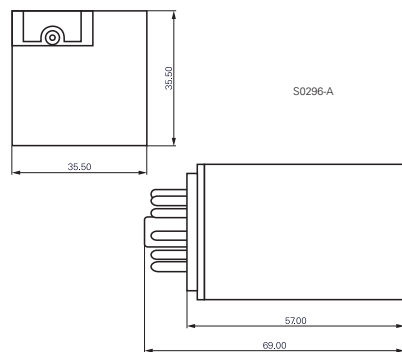
### Terminal assignment

View on solder pins



### Dimensions

Dimensions in mm



### Product key

Type

Contact configuration

**2** 2 C/O contacts, 8-pole      **3** 3 C/O contacts, 11-pole

Contact material

**2** AgNi 90/10      **B** AgNi 90/10, bifurcated contacts, gold plated  
**3** AgNi 90/10, gold plated

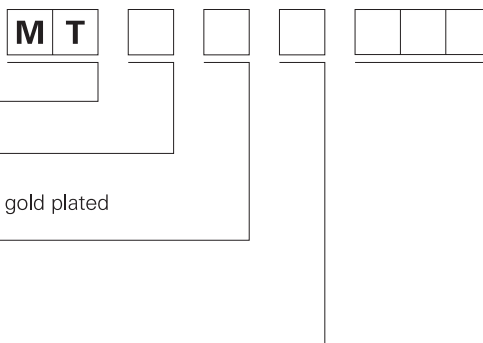
Version

**1** DC with test button      **6** AC with test button  
**3** DC with test button and bipolar LED      **8** AC with test button and LED

Coil

Coil code: please refer to coil versions table, preferred types in bold print

Other types on request



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