

Relays

Micro relays A

Characteristic quantities		
Rated voltage	U_N	12 V
Test voltage	U_P	1000 V _{-rms}
Upper limit temperature	$\vartheta_{\max}$	155 °C
Thermal resistance	R_{ϑ}	40 K/W
Ambient temperature	ϑ_{amb}	-40...+125 °C
Max. switching frequency	f_{Smax}	20 Hz
Release time (typ.)	t_r	2,0 ms
Graphical symbol	See connection diagram	

Relays

Micro relays A

Make relay

BOSCH
Part number Tyco
Mitsubishi-Part number

0 986 332 010
V23074-A1001-X007
MB 953 382

Technical data for contact side

Contact material		AgSnO ₂
Minimum recommended current	$I_{Smin} (U_s = 13,5 V)$	1 A
Max. switching current ²⁾ - Make	I_{Smax} on ³⁾ / off	120 A / 30 A
Limiting continuous current - Make	I_{SN} at 23 °C / 85 °C	25 A / 15 A
Voltage drop - Make	10 A contact current	≈ 20 mV
Increase in coil temperature (typ.)	10 A contact current	15 K
Mechanical endurance (without load)		> 1 x 10 ⁶ cycles
Electrical endurance at lamp load ⁴⁾		> 2 x 10 ⁵ cycles

²⁾ The values apply to a resistive or inductive load with suitable spark suppression. ³⁾ This current may flow for a maximum of 3 s for a make/break ratio of 1:10.

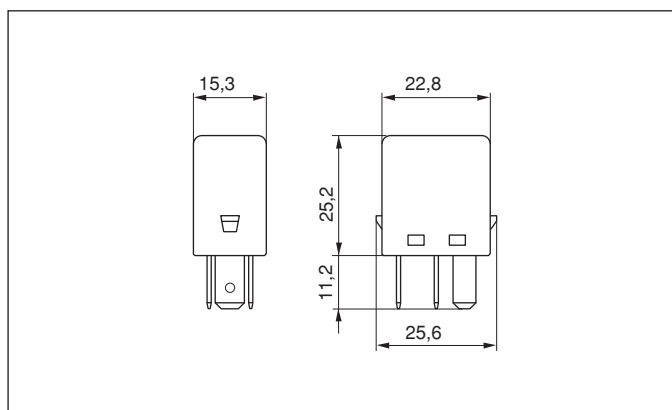
⁴⁾ 120 A/20 A or inductive load 0.44 mH, 45 A/20 A (make/break)

Technical data for energizing side

Operate voltage ¹⁾	U_{12op}	≤ 7,2 V
Release voltage ¹⁾	U_{12r}	≥ 1,6 V
Coil resistance ¹⁾	R_{Cu}	123 Ω±0 Ω
Parallel resistor	R_P	680 Ω
Total resistance	R_{12}	104 Ω±10 Ω
Nom. power consumption	P_N	1,5 W
Operate time (typ.)	t_{OP}	5,0 ms

¹⁾ At 23 °C coil temperature.

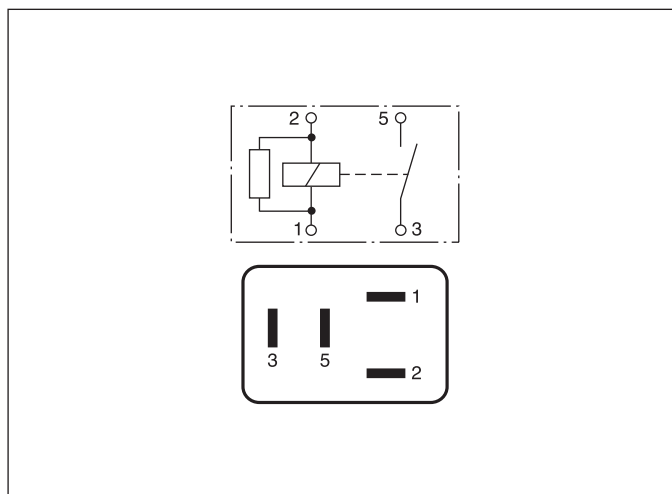
Dimensional drawing



Figure



Connection diagram



Relays

Micro relays A

Normally open relay

BOSCH
Part number Tyco
Ford-Part number

0 986 332 052
V23074-B1701-X020
07320414

Technical data for contact side		
Contact material		AgSnO ₂
Minimum recommended current	$I_{Smin} (U_s = 13,5 \text{ V})$	1 A
Max. switching current ²⁾ - Normal load	$I_{Smin} (U_s = 13,5 \text{ V})$	90 A
Max. switching current - Lamp load	$I_{Smin} (U_s = 13,5 \text{ V})$	120 A
Limiting continuous current ³⁾ - Normal load	$I_{SN} \text{ at } 23 \text{ }^{\circ}\text{C} / 85 \text{ }^{\circ}\text{C}$	20 A / 15 A
Limiting continuous current - Lamp load	$I_{SN} \text{ at } 23 \text{ }^{\circ}\text{C} / 85 \text{ }^{\circ}\text{C}$	12 A / 9 A
Voltage drop - Normal load	10 A contact current	≈ 40 mV
Voltage drop - Lamp load	10 A contact current	≈ 40 mV
Increase in coil temperature (typ.)	10 A contact current	15 K
Mechanical endurance (without load)		> 1 x 10 ⁶ cycles
Electrical endurance at lamp load ³⁾	$I_S = 120 \text{ A}$	> 1 x 10 ⁵ cycles
Electrical endurance with resistive load ³⁾	$I_S = 20 \text{ A}$	> 2 x 10 ⁵ cycles
Electrical endurance motor load (on/continuous) ³⁾	$I_S = 40/20 \text{ A}$	> 2 x 10 ⁵ cycles

²⁾ The values apply to a resistive or inductive load with suitable spark suppression. ³⁾ $U_s = 13,5 \text{ V}$; max. 2 s on / 2 s off.

Technical data for energizing side

Operate voltage ¹⁾	U_{12op}	≤ 7,2 V
Release voltage ¹⁾	U_{12r}	≥ 1,6 V
Coil resistance ¹⁾	R_{Cu}	144 Ω±12 Ω
Parallel resistor	R_P	1000 Ω
Total resistance	R_{12}	126 Ω±9,4 Ω
Nom. power consumption	P_N	1,5 W
Operate time (typ.)	t_{OP}	5,0 ms

Dimensional drawing

¹⁾ At 23 °C coil temperature.

Figure

Connection diagram

Relays

Micro relays A

Normally closed relay

BOSCH
Part number Tyco
Ford-Part number

0 986 332 051
V23074-B1201-X021
07320415

Technical data for contact side

Contact material		Ag
Minimum recommended current	I_{Smin} (bei $U_s = 13,5 V$)	1 A
Max. switching current ²⁾ - Break	I_{Smax} on ³⁾ / off	40 A / 15 A
Limiting continuous current - Break	I_{SN} at 23 °C / 85 °C	15 A / 10 A
Voltage drop - Break	10 A contact current	≈ 20 mV
Increase in coil temperature (typ.)	10 A contact current	15 K
Mechanical endurance (without load)		> 1 x 10 ⁶ cycles
Electrical endurance with resistive load	10 A resistive load	> 1 x 10 ⁵ cycles

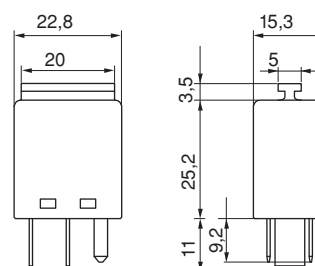
²⁾ The values apply to a resistive or inductive load with suitable spark suppression. ³⁾ This current may flow for a maximum of 3 s for a make/break ratio of 1:10.

Technical data for energizing side

Operate voltage ¹⁾	U_{12op}	≤ 7,2 V
Release voltage ¹⁾	U_{12r}	≥ 1,6 V
Coil resistance ¹⁾	R_{Cu}	144 Ω±0 Ω
Parallel resistor	R_P	1000 Ω
Total resistance	R_{12}	126 Ω±13 Ω
Nom. power consumption	P_N	1,1 W
Operate time (typ.)	t_{OP}	5,0 ms

¹⁾ At 23 °C coil temperature.

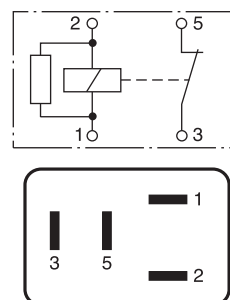
Dimensional drawing



Figure



Connection diagram



Relays

Micro relays A

Change-over relay

BOSCH
Part number Tyco
Volvo-Part number

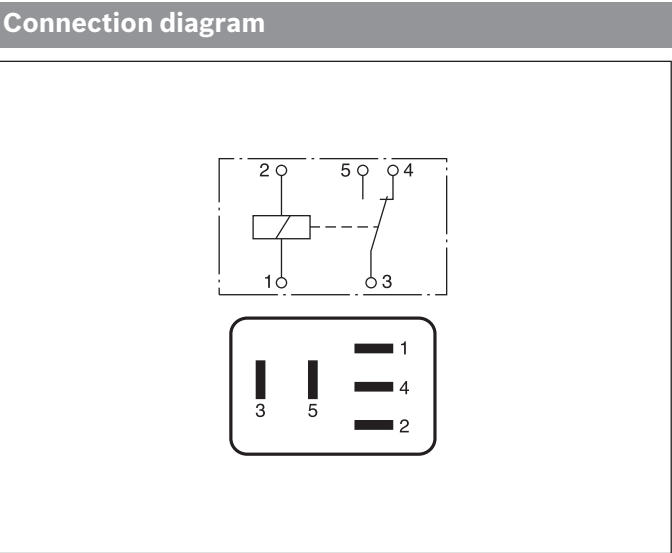
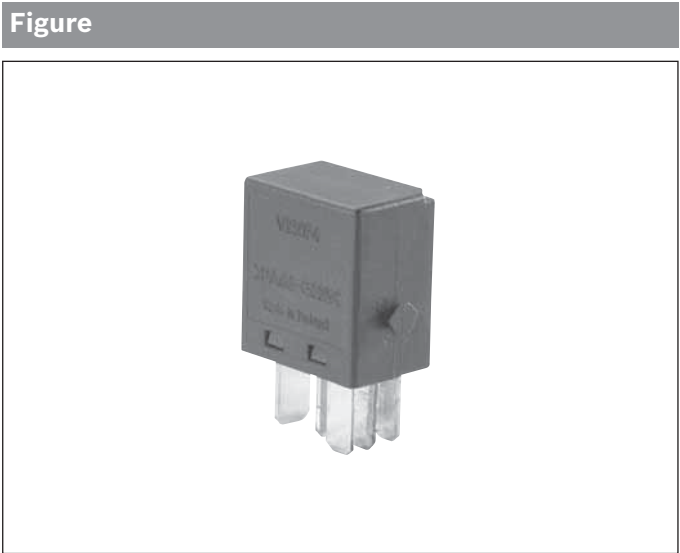
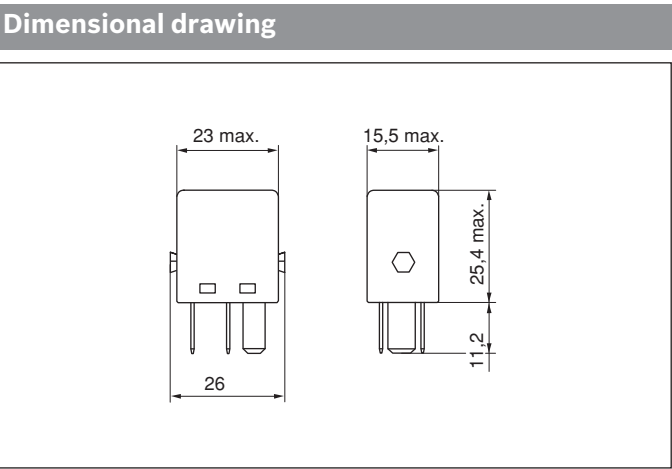
0 986 332 020
V23074-A4001-X055
9494783-5

Technical data for contact side			
Contact material			AgSnO ₂
Minimum recommended current	I_{Smin} ($U_s = 13,5\text{ V}$)		1 A
Max. switching current ²⁾ - Break	I_{Smax} on ³⁾ / off		40 A / 15 A
Max. switching current ²⁾ - Make	I_{Smax} on ³⁾ / off		120 A / 30 A
Limiting continuous current - Break	I_{SN} at 23 °C / 85 °C		10 A / 8 A
Limiting continuous current - Make	I_{SN} at 23 °C / 85 °C		25 A / 15 A
Voltage drop - Break	10 A contact current		≈ 20 mV
Voltage drop - Make	10 A contact current		≈ 20 mV
Increase in coil temperature (typ.)	10 A contact current		15 K
Mechanical endurance (without load)			> 1 x 10 ⁶ cycles
Electrical endurance at lamp load ⁴⁾			> 2 x 10 ⁵ cycles

²⁾ The values apply to a resistive or inductive load with suitable spark suppression. ³⁾ This current may flow for a maximum of 3 s for a make/break ratio of 1:10. ⁴⁾ 120 A/20 A or inductive load 0.44 mH, 45 A/20 A (make/break)

Technical data for energizing side			
Operate voltage ¹⁾	U_{12op}		≤ 7,2 V
Release voltage ¹⁾	U_{12r}		≥ 1,6 V
Coil resistance ¹⁾	R_{Cu}		96 Ω±9,6 Ω
Total resistance	R_{12}		96 Ω±9,6 Ω
Nom. power consumption	P_N		1,5 W
Operate time (typ.)	t_{OP}		5,0 ms

¹⁾ At 23 °C coil temperature.



Relays

Micro relays A

Change-over relay

BOSCH
Part number Tyco
Volvo-Part number

0 986 332 021
V23074-A4001-X040
9441161-8

Technical data for contact side

Contact material		AgSnO ₂
Minimum recommended current	$I_{Smin} (U_s = 13,5 V)$	1 A
Max. switching current ²⁾ - Break	I_{Smax} on ³⁾ / off	40 A / 15 A
Max. switching current ²⁾ - Make	I_{Smax} on ³⁾ / off	120 A / 30 A
Limiting continuous current - Break	I_{SN} at 23 °C / 85 °C	10 A / 8 A
Limiting continuous current - Make	I_{SN} at 23 °C / 85 °C	25 A / 15 A
Voltage drop - Break	10 A contact current	≈ 20 mV
Voltage drop - Make	10 A contact current	≈ 20 mV
Increase in coil temperature (typ.)	10 A contact current	15 K
Mechanical endurance (without load)		> 1 x 10 ⁶ cycles
Electrical endurance ⁴⁾		> 2 x 10 ⁵ cycles

²⁾ The values apply to a resistive or inductive load with suitable spark suppression. ³⁾ This current may flow for a maximum of 3 s for a make/break ratio of 1:10.

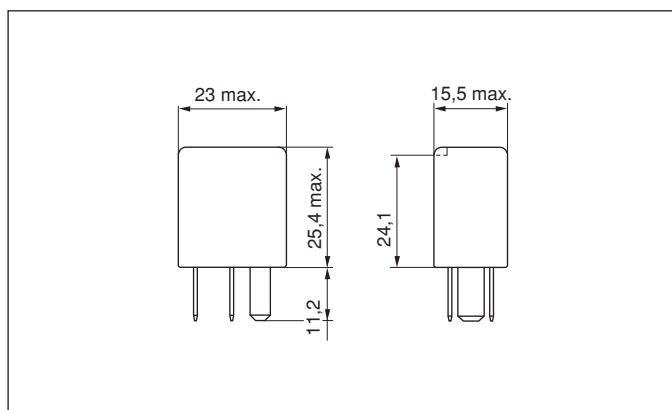
⁴⁾ refer to Volvo specification 1282750 issue 05

Technical data for energizing side

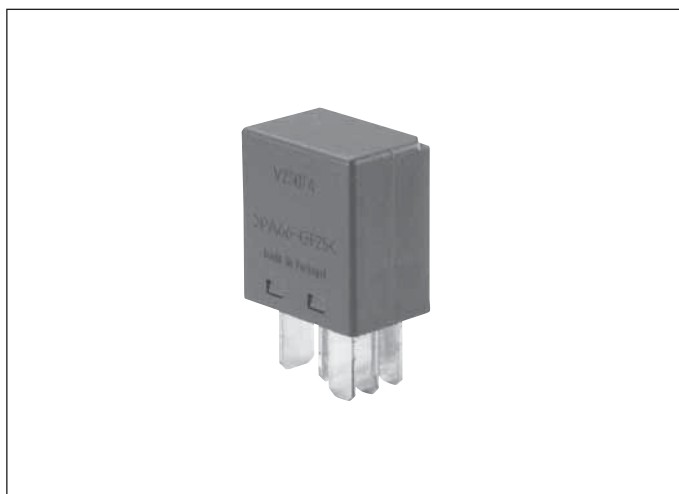
Operate voltage ¹⁾	U_{12op}	≤ 7,2 V
Release voltage ¹⁾	U_{12r}	≥ 1,6 V
Coil resistance ¹⁾	R_{Cu}	96 Ω±9,6 Ω
Total resistance	R_{12}	96 Ω±9,6 Ω
Nom. power consumption	P_N	1,5 W
Operate time (typ.)	t_{OP}	5,0 ms

¹⁾ At 23 °C coil temperature.

Dimensional drawing



Figure



Connection diagram

