

PKC Vehicle Electronics

3. Catalogue for Time Relays

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Contents

Time Relays 12V

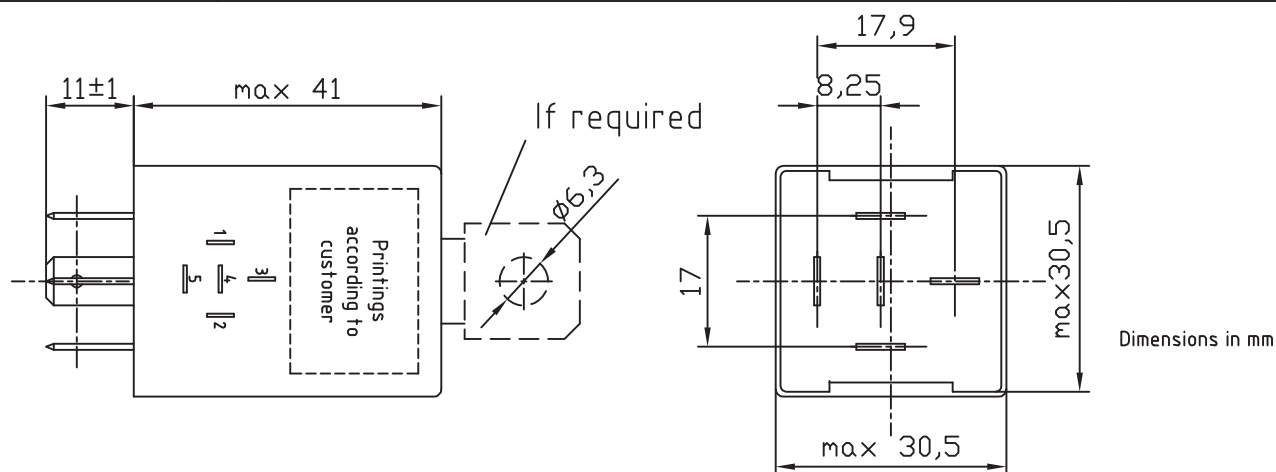
41 9 4003-001	12V 10A 10s
41 9 4005-001	12V 0...900s off-delayed
41 9 4006-001	12V 0...900s on-delayed
41 9 4012-001	12V 10A 7,5s off-delayed
41 9 4013-001	12V 10A 2s on-delayed
41 9 4024-001	12V 10min off-delayed with Controller
41 9 4030-001	12V 9min off-delayed with Controller
41 9 4031-001	12V 10s off-delayed with Controller
41 9 4039-001	12V 1,5s off-delayed with Controller
41 9 4050-001	12V 0...900s off-delayed with Controller
41 9 4051-001	12V 0...900s on-delayed with Controller

Time Relays 24V

41 9 4007-001	24V 0...900s off-delayed
41 9 4008-001	24V 0...900s on-delayed
41 9 4022-001	Multitimer 24V 6-60min +30s on-delayed
41 9 4023-001	24V 60s off-delayed with Controller
41 9 4026-001	24V 15s on-delayed with Controller
41 9 4027-001	24V 150s off-delayed with Controller
41 9 4029-001	24V 60s off-delayed with Controller
41 9 4032-001	24V 1,5s on-delayed with Controller
41 9 4033-001	24V 15s off-delayed with Controller
41 9 4052-001	24V 0...900s off-delayed with Controller
41 9 4053-001	24V 0...900s on-delayed with Controller

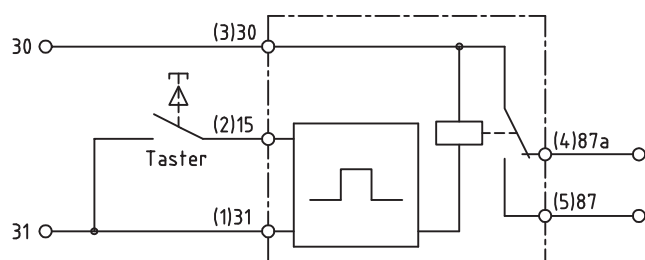
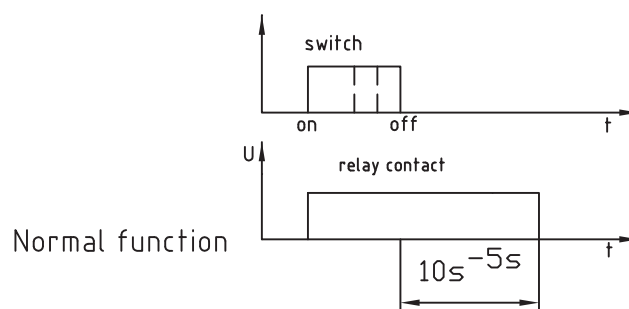
Pre-Heater Relays 24V

41 9 4014-001	Pre-Heater Relay 12V 70A
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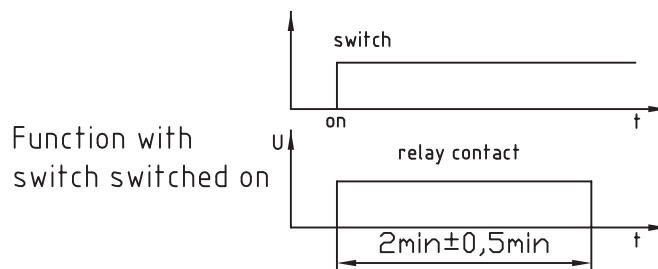


(3)30
(1)31 (4)87a (2)15
(5)87

Pin assignment



Connection plan



Function diagram

Order number: 41 9 4003

Nominal voltage:	12 V
Operating voltage:	9 V...15V
Test voltage:	13,5 V
Switching current:	Normally closed contact 10 A Normally open contact 20 A
Compliance:	Plastic housing with Terminals according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
Operating temperature	-25°C...+80°C
Degree of protection:	Housing IP 53 (Terminals downwards) according to DIN 40 050-9 Pins IP 20 according to DIN 40 050-9 when used with a plug-in socket
Electromagnetic compatibility:	Interference immunity and interference emission according to EN ISO 14982

Specification

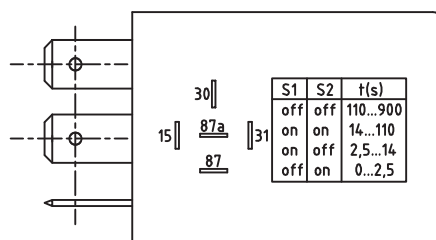
Time Relay, off-delayed

12 V/10 A (0...900) s

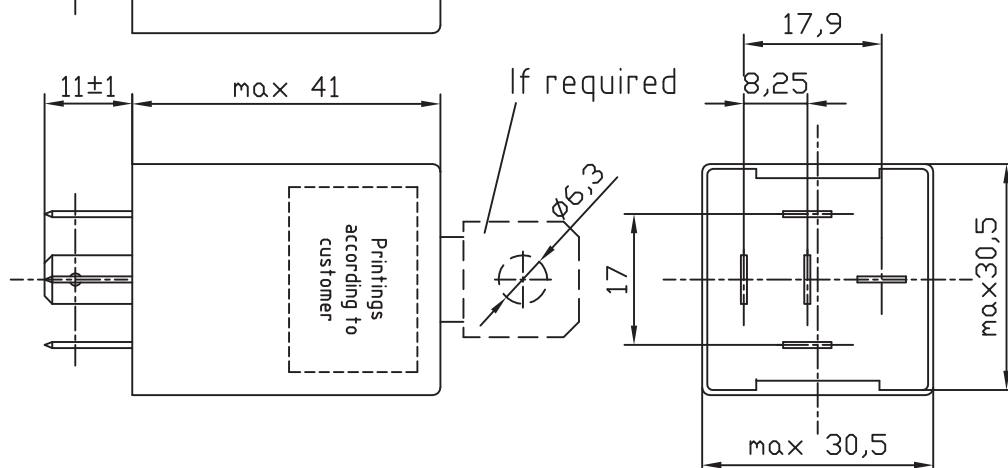
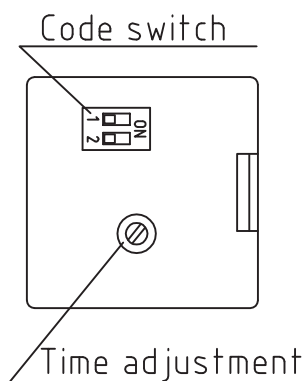
41 9 4005 S

Code

S1	S2	t(s)
off	off	110...900
on	on	14...110
on	off	2,5...14
off	on	0...2,5

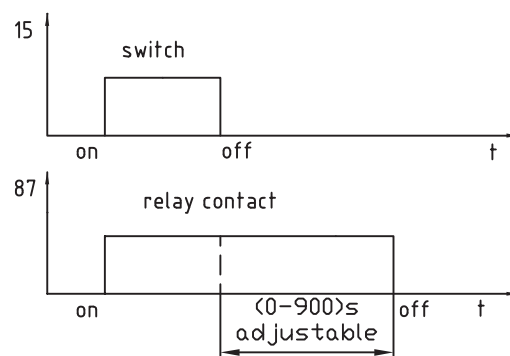
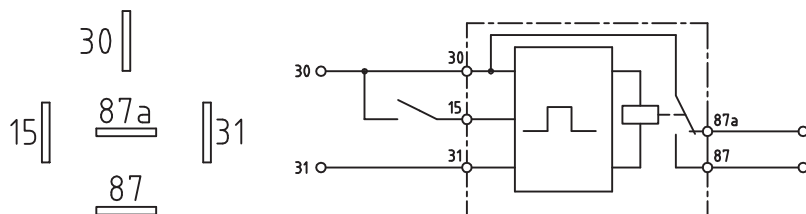


Dimensions in mm



Connection plan

Function diagram



Order number: 41 9 4005

Nominal voltage:	12 V
Operating voltage:	9 V...17 V
Test voltage:	14 V
Switching current :	Normally closed contact 10 A Normally open contact 20 A
Compliance:	Plastic housing with fixation bracket according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
Operating temperature:	-25°C...+80°C
Degree of protection:	Housing IP 50 according to DIN 40 050-9 Pins IP 20 according to DIN 40 050-9 when using plug-in socket
Electromagnetic compatibility:	Interference immunity and interference emission according to EN 133309 and ISO 13766

Specification

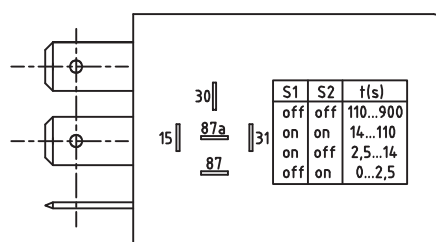
Time Relay, on-delayed

12 V/10 A (0...900) s

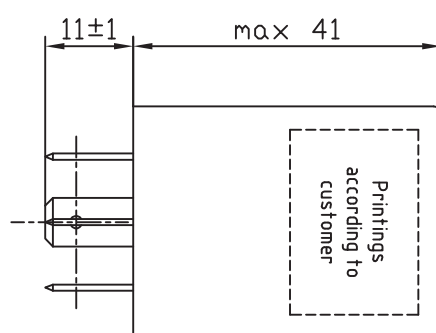
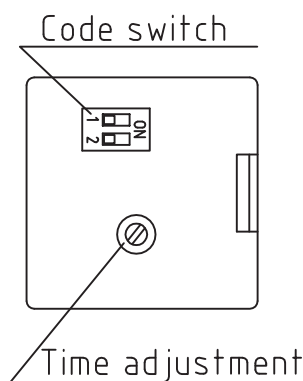
41 9 4006 S

Code

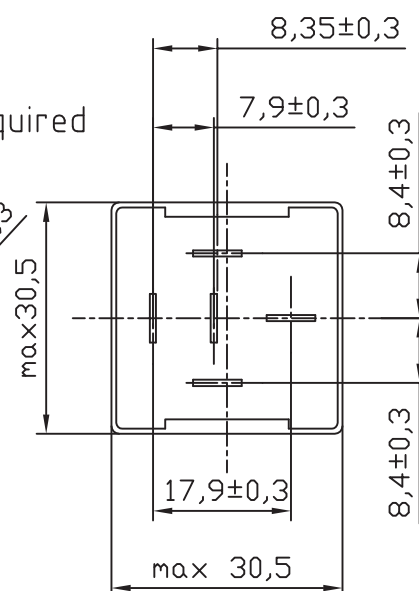
S1	S2	t(s)
off	off	110...900
on	on	14...110
on	off	2,5...14
off	on	0...2,5



Dimensions in mm

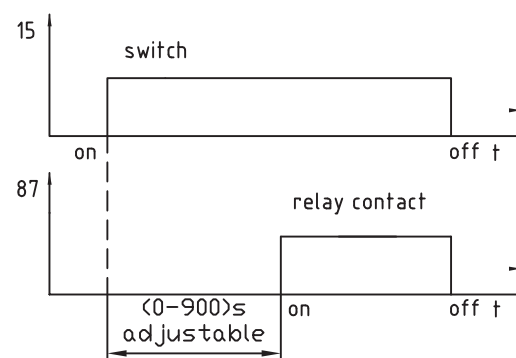
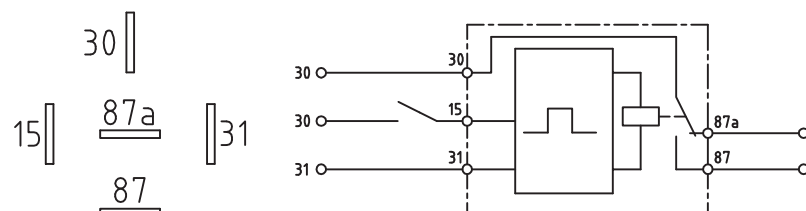


If required



Connection plan

Function diagram



Order number: 41 9 4006

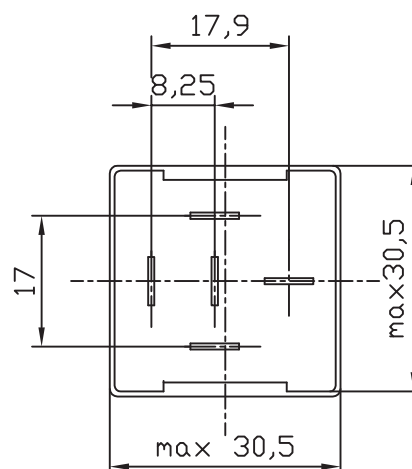
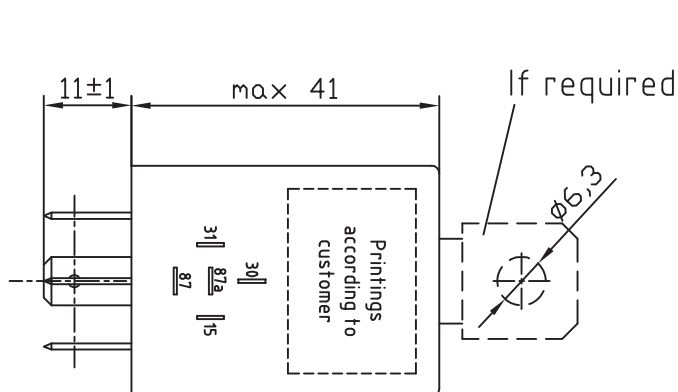
<u>Nominal voltage:</u>	12 V
<u>Operating voltage:</u>	9 V...16 V
<u>Test voltage:</u>	14 V
<u>Switching current:</u>	Normally closed contact 10 A Normally open contact 20 A
<u>Compliance:</u>	Plastic housing with fixation bracket according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Operating temperature:</u>	-20°C...+80°C
<u>Degree of protection:</u>	Housing IP 50 according to DIN 40 050-9 Pins IP 20 according to DIN 40 050-9 when using a plug-in socket
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to EN 133309 and ISO 13766

Specification

Time Relay, off-delayed

12 V/10 A 7,5 s

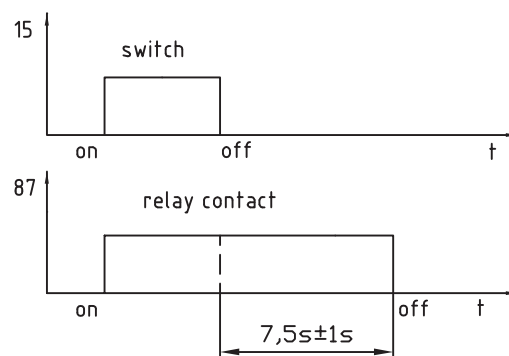
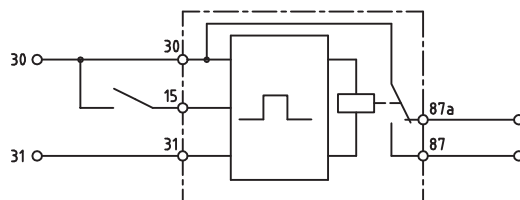
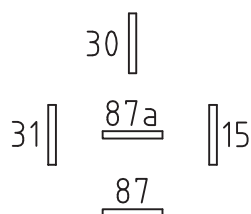
41 9 4012 S



Dimensions in mm

Connection plan

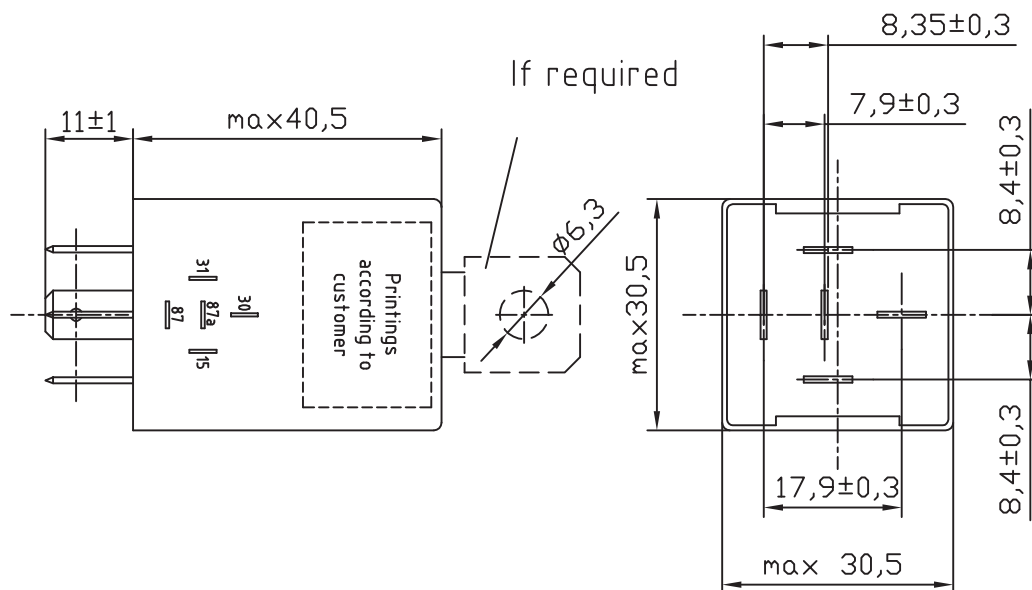
Function diagram



Order number: 41 9 4012

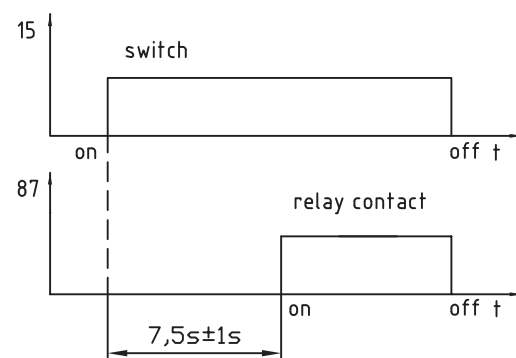
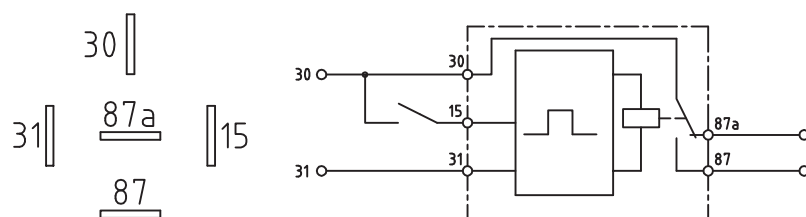
<u>Nominal voltage:</u>	12 V
<u>Operating voltage:</u>	9 V...15 V
<u>Test voltage:</u>	13,5 V
<u>Switching current:</u>	Normally closed contact 10 A Normally open contact 20 A
<u>Compliance:</u>	Housing PA 6.6 30% GF with fixation bracket according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH CuZn 30 gal. Sn
<u>Operating temperature:</u>	-30°C...+80°C
<u>Storage temperature:</u>	-40°C...+85°C
<u>Degree of protection:</u>	Housing IP 53 according to DIN 40 050-9 (Terminals downwards) Pins IP 20 according to DIN 40 050-9 when using a plug-in socket
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to DIN 40 839 and 95/54/EG

Dimensions in mm



Connection plan

Function diagram



Order number: 41 9 4013

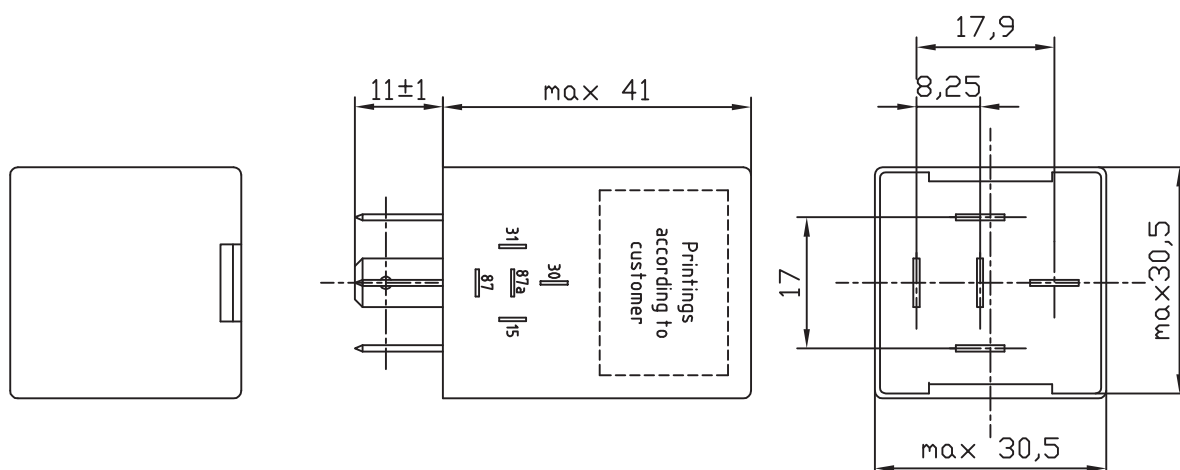
Nominal voltage:	12 V
Operating voltage:	9 V...16 V
Test voltage:	13,5 V
Switching current:	Normally closed contact 10 A Normally open contact 20 A
Compliance:	Housing PA 6.6 GF30 with fixation bracket according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1, 6,3x0,8 OH CuZn37 gal Sn.
Operating temperature:	-40°C...+85°C
Degree of protection:	Housing IP 67 according to DIN 40 050-9 (Terminals downwards) Pins IP 20 according to DIN 40 050-9 when using a plug-in socket
Electromagnetic compatibility:	Interference immunity and interference emission according to RL 72/245/EWG i.d.F 2006/28/EG, ISO 7637-2

Specification

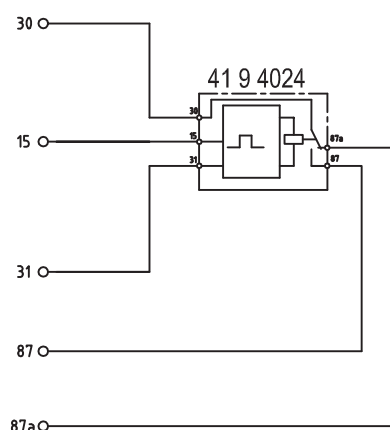
Time Relay, off-delayed

12 V 10 min

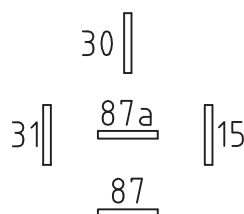
41 9 4024 S



Function diagram time relay



Connection plan



Dimensions in mm

Order number: 41 9 4024

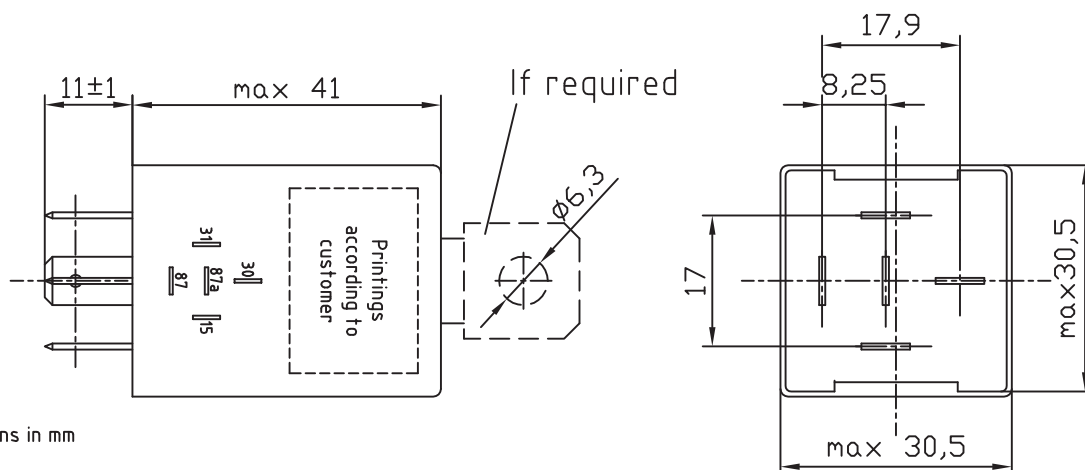
Nominal voltage:	12 V
Operating voltage:	9 V...17 V
Test voltage:	13,5 V
Overvoltage protection:	Up to 80 V
Switching current:	Normally closed contact 10 A Normally open contact 20 A
Compliance:	Housing with fixation bracket according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
Operating temperature:	-20°C...+80°C
Degree of protection:	Housing IP 50 according to DIN 40 050-9 Pins IP 20 according to DIN 40 050-9 when using plug-in socket
Electromagnetic compatibility:	Interference immunity and interference emission according to RL 72/245/EWG and ISO 7637-2
Switching time:	10min ± 10% switch off relay, retriggerable

Specification

Time Relay, off-delayed

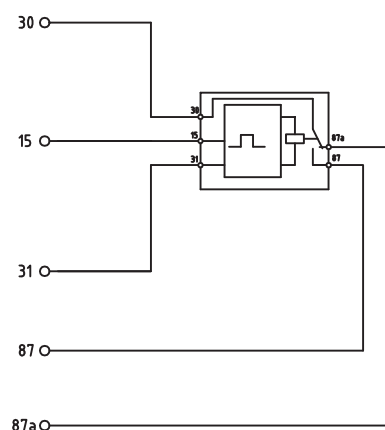
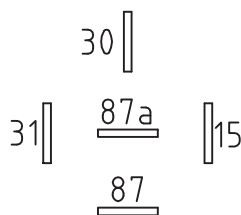
12 V/10 A 9 min

41 9 4030 S



Dimensions in mm

Connection plan



Order number: 41 9 4030

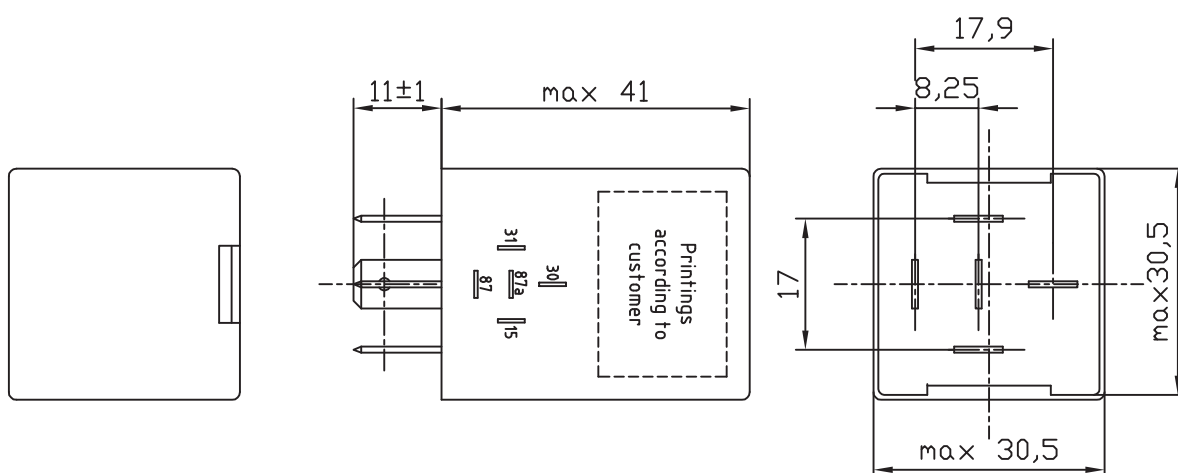
<u>Nominal voltage:</u>	12 V
<u>Operating voltage:</u>	9 V...17 V
<u>Test voltage:</u>	13,5 V
<u>Overvoltage protection:</u>	Up to 80 V
<u>Switching current:</u>	Normally closed contact 10 A Normally open contact 20 A
<u>Compliance:</u>	Housing PA 6.6 GF30 with fixation bracket according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Operating temperature:</u>	-20°C...+80°C
<u>Degree of protection:</u>	Housing IP 53 according to DIN 40 050-9 Pins IP 20 according to DIN 40 050-9 when using plug-in socket
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to RL 72/245/EWG and ISO 7637-2
<u>Switching time:</u>	9 min switch off relay, retriggerable

Specification

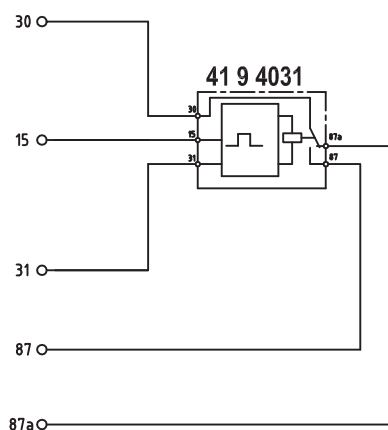
Time Relay, on-delayed

12 V 10s

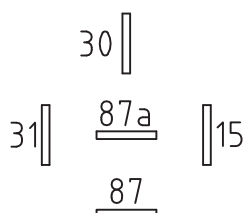
41 9 4031 S



Function diagram of time relay



Connection plan



Dimensions in mm

Order number: 41 9 4031

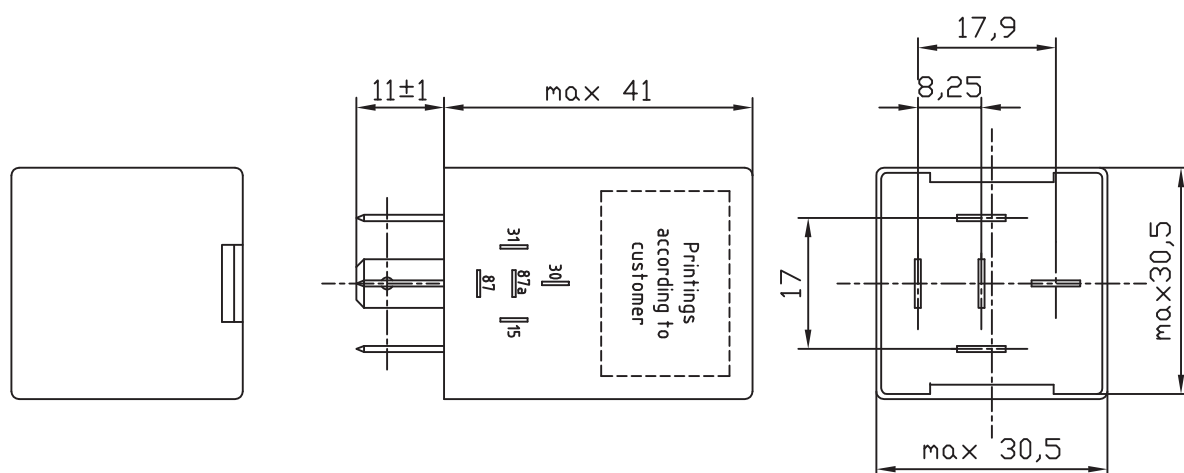
<u>Nominal voltage:</u>	12 V
<u>Operating voltage:</u>	9 V...15 V
<u>Test voltage:</u>	13,5 V
<u>Overvoltage protection:</u>	Up to 80 V
<u>Switching current:</u>	Normally closed contact 10 A Normally open contact 20 A
<u>Compliance:</u>	Housing with fixation bracket according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Operating temperature:</u>	-20°C...+80°C
<u>Degree of protection:</u>	Housing IP 50 according to DIN 40 050-9 Pins IP 20 according to DIN 40 050-9 when using plug-in socket
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to RL 72/245/EWG and ISO 7637-2
<u>Switching time:</u>	10 seconds ± 10% switch on relay, retriggerable

Specification

Time Relay, off-delayed

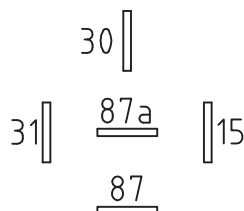
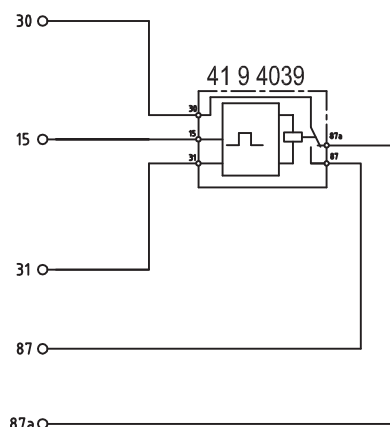
12 V 1,5s

41 9 4039 S



Function diagram of time relay

Connnection plan



Dimensions in mm

Order number: 41 9 4039

<u>Nominal voltage:</u>	12 V
<u>Operating voltage:</u>	9 V...17 V
<u>Test voltage:</u>	13,5 V
<u>Overvoltage protection:</u>	Up to 80 V
<u>Switching current:</u>	Normally closed contact 10 A Normally open contact 20 A
<u>Compliance:</u>	Housing with fixation bracket according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Operating temperature:</u>	-40°C...+80°C
<u>Degree of protection:</u>	Housing IP 50 according to DIN 40 050-9 Pins IP 20 according to DIN 40 050-9 when using plug-in socket
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to RL 72/245/EWG and ISO 7637-2
<u>Switching time:</u>	1,5s ± 20% switch off relay, retriggeable

Specification

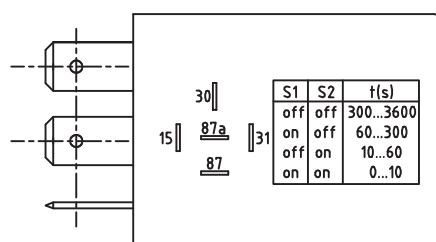
Time Relay, off-delayed

12 V/10 A (0...3600) s

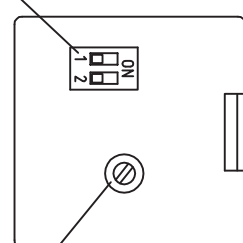
Dimensions in mm

Code

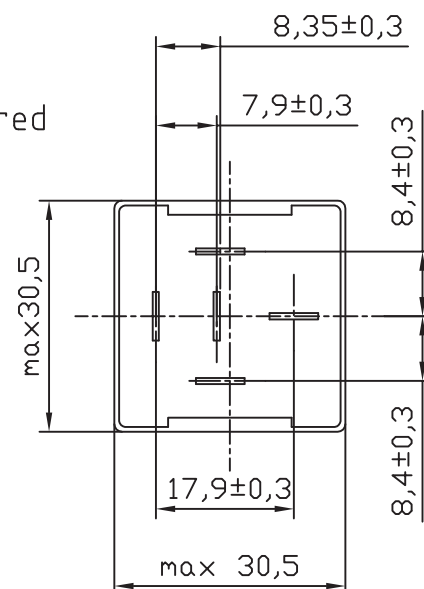
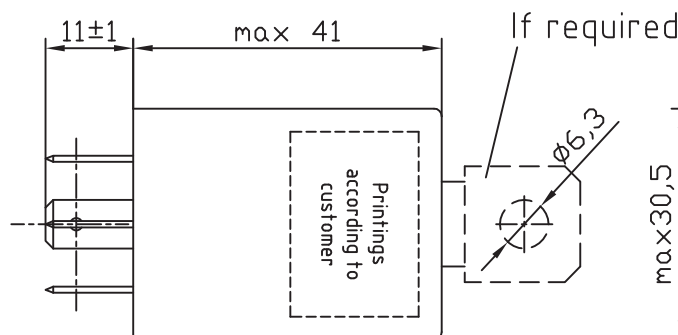
S1	S2	t(s)
off	off	300...3600
on	off	60...300
off	on	10...60
on	on	0...10



Code switch

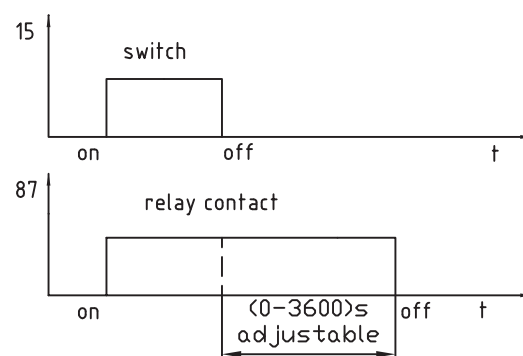
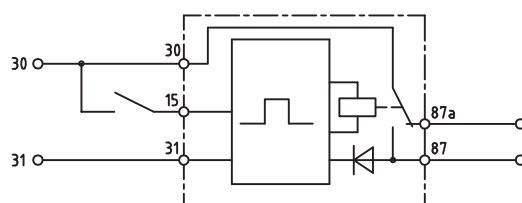
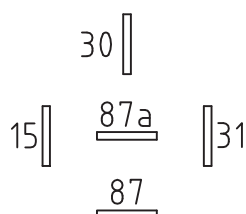


Time adjustment



Connection plan

Function diagram



Order number:

Nominal voltage:

12 V

Operating voltage:

9 V...16 V

Test voltage:

14 V

Switching current:

Normally closed contact 10 A

Normally open contact 20 A (30 min)

Compliance:

Plastic housing with fixation bracket according to ISO 7588-2 C,
Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.

Operating temperature:

-25°C...+80°C

Degree of protection:

Housing IP 50 according to DIN 40 050-9

Electromagnetic compatibility:

Interference immunity and interference emission according to
RL 72/245/EWG (i.d.F.2006/28/EG) and ISO 7637-1

Specification

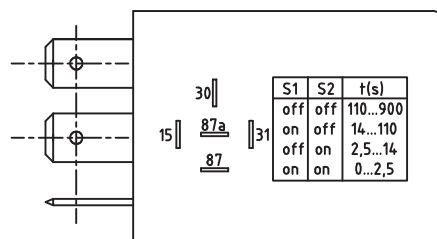
Time Relay, on-delayed

12 V/10 A (0...900) s

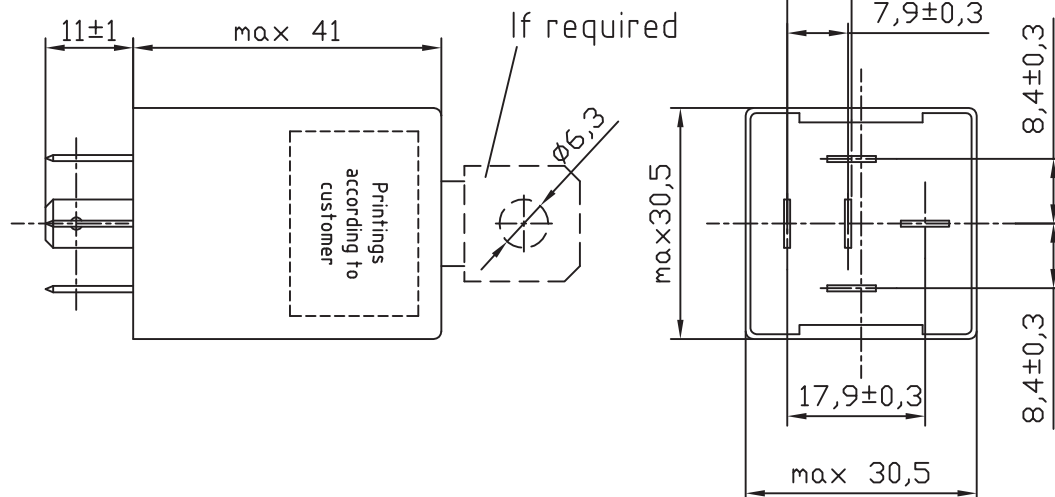
41 9 4051 S

Code

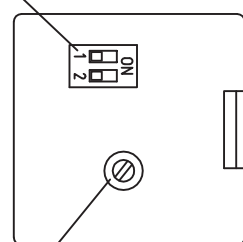
S1	S2	t(s)
off	off	110...900
on	off	14...110
off	on	2,5...14
on	on	0...2,5



Dimensions in mm

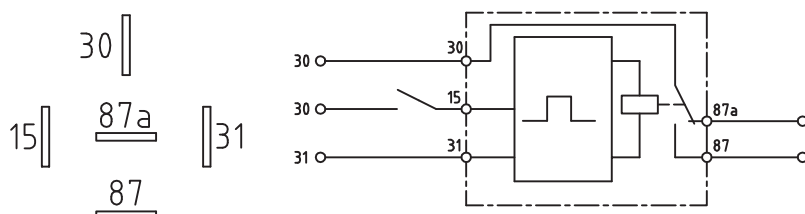


Code switch

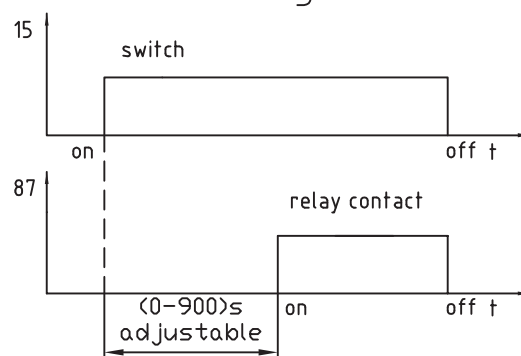


Time adjustment

Connection plan



Function diagram



Order number: 41 9 4051

Nominal voltage:	12 V
Operating voltage:	9 V...16 V
Test voltage:	14 V
Switching current:	Normally closed contact 10 A Normally open contact 20 A (30 min)
Compliance:	Plastic housing with fixation bracket according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
Operating temperature:	-25°C...+80°C
Degree of protection:	Housing IP 50 according to DIN 40 050-9
Electromagnetic compatibility:	Interference immunity and interference emission according to RL 72/245/EWG (i.d.F.2006/28/EG) and ISO 7637-1

Specification

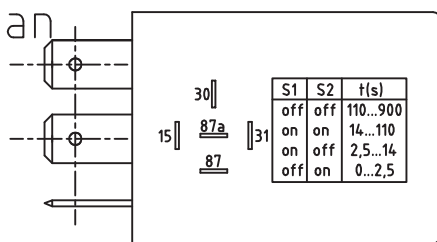
Time Relay, off-delayed

24 V/10 A (0...900) s

41 9 4007 S

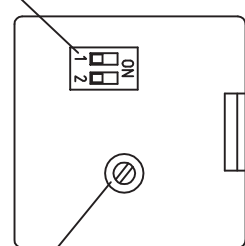
Connection plan

S1	S2	t(s)
off	off	110...900
on	on	14...110
on	off	2,5...14
off	on	0...2,5

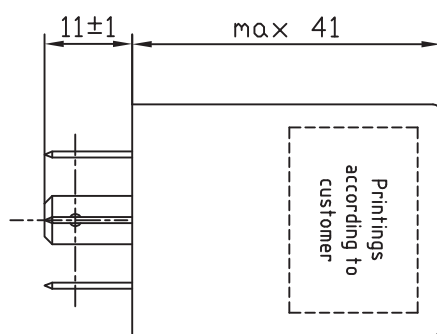


Dimensions in mm

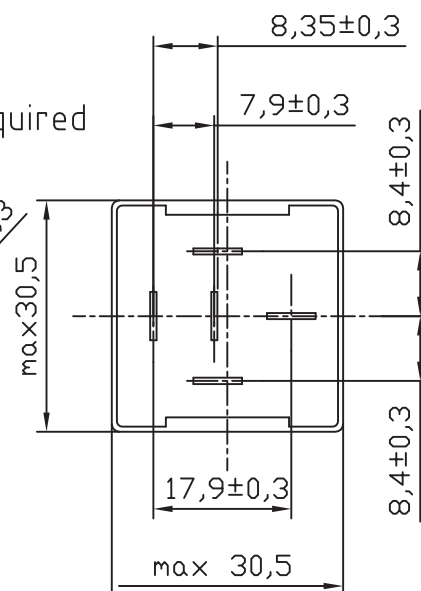
Code switch



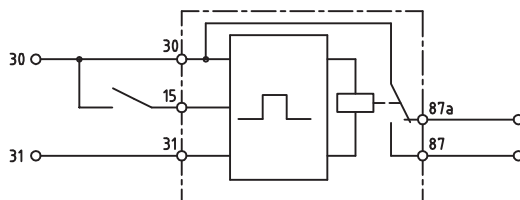
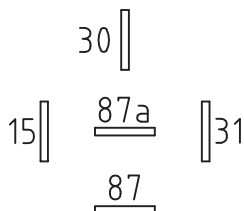
Time setting



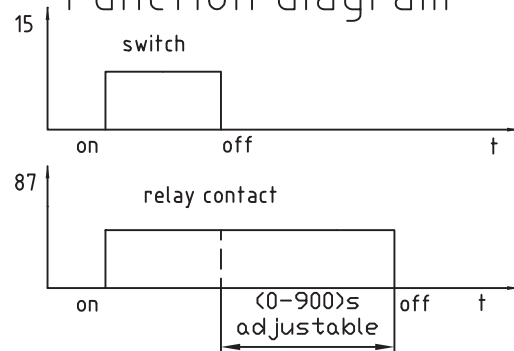
If required



Connection plan



Function diagram



Order number: 41 9 4007

Nominal voltage:

24 V

Operating voltage:

18 V...33 V

Test voltage:

27 V

Switching current:

Normally closed contact 10 A
Normally open contact 20 A

Compliance:

Plastic housing with fixation bracket according to ISO 7588-2 C,
Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.

Operating temperature:

-20°C...+80°C

Degree of protection:

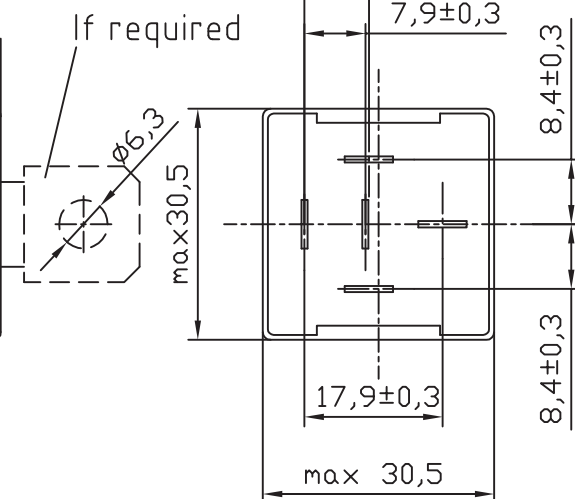
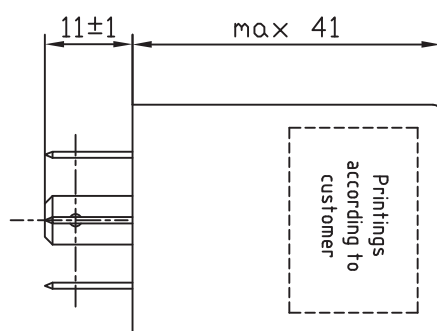
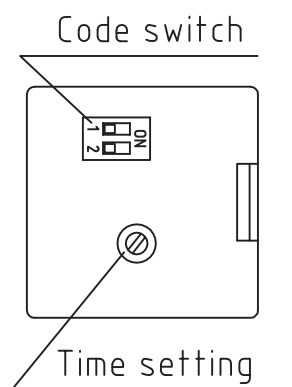
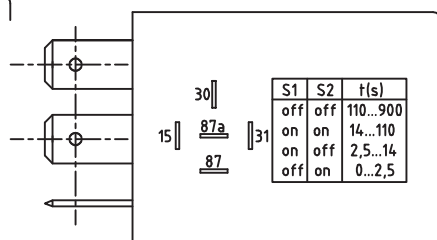
Housing IP 53 according to DIN 40 050-9

Electromagnetic compatibility:

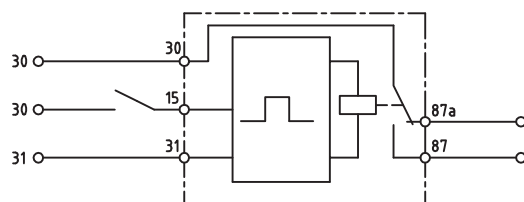
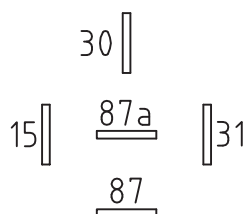
Pins IP 20 according to DIN 40 050-9 when using plug-in socket
Interference immunity and interference emission according to
EN 1333 09 and ISO 13766

Connection plan

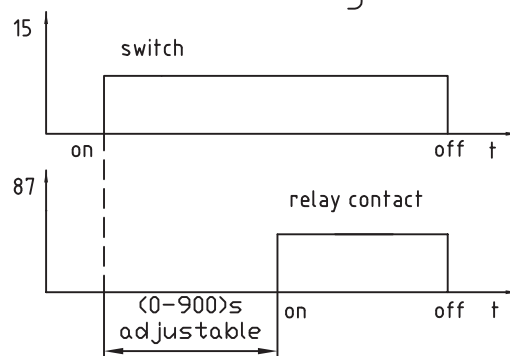
S1	S2	t(s)
off	off	110...900
on	on	14...110
on	off	2,5...14
off	on	0...2,5



Connection plan



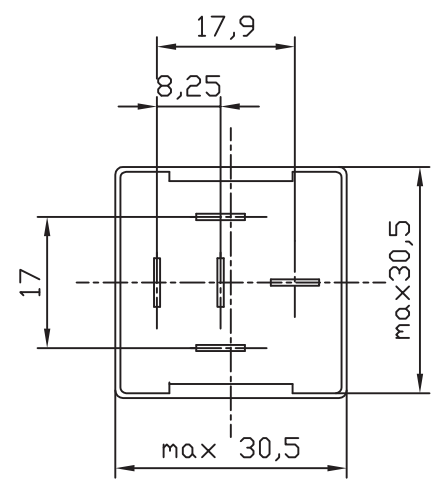
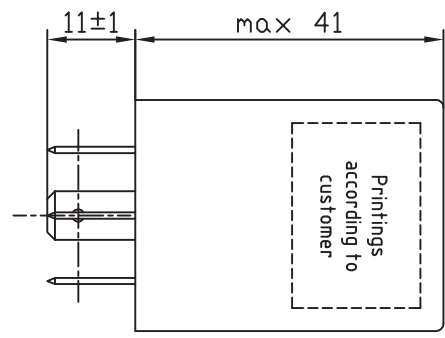
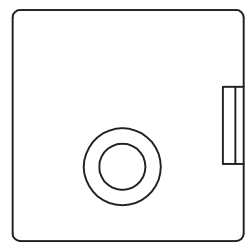
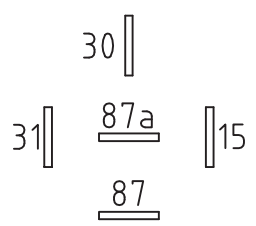
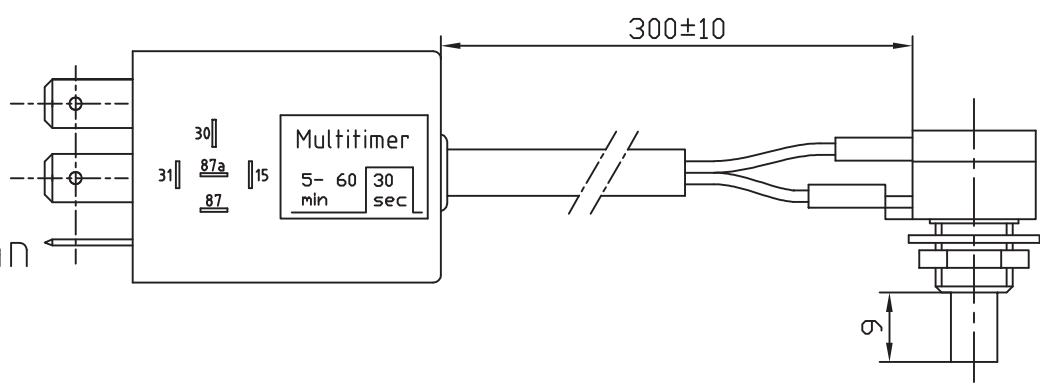
Function diagram



Order number: 41 9 4008

<u>Nominal voltage:</u>	24 V
<u>Operating voltage:</u>	18 V...33 V
<u>Test voltage:</u>	27 V
<u>Switching current:</u>	Normally closed contact 10 A Normally open contact 20 A
<u>Compliance:</u>	Plastic housing with fixation bracket according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Operating temperature:</u>	-20°C...+80°C
<u>Degree of protection:</u>	Housing IP 53 according to DIN 40 050-9 Pins IP 20 according to DIN 40 050-9 when using plug-in socket
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to EN 1333 09 and ISO 13766

Connection plan

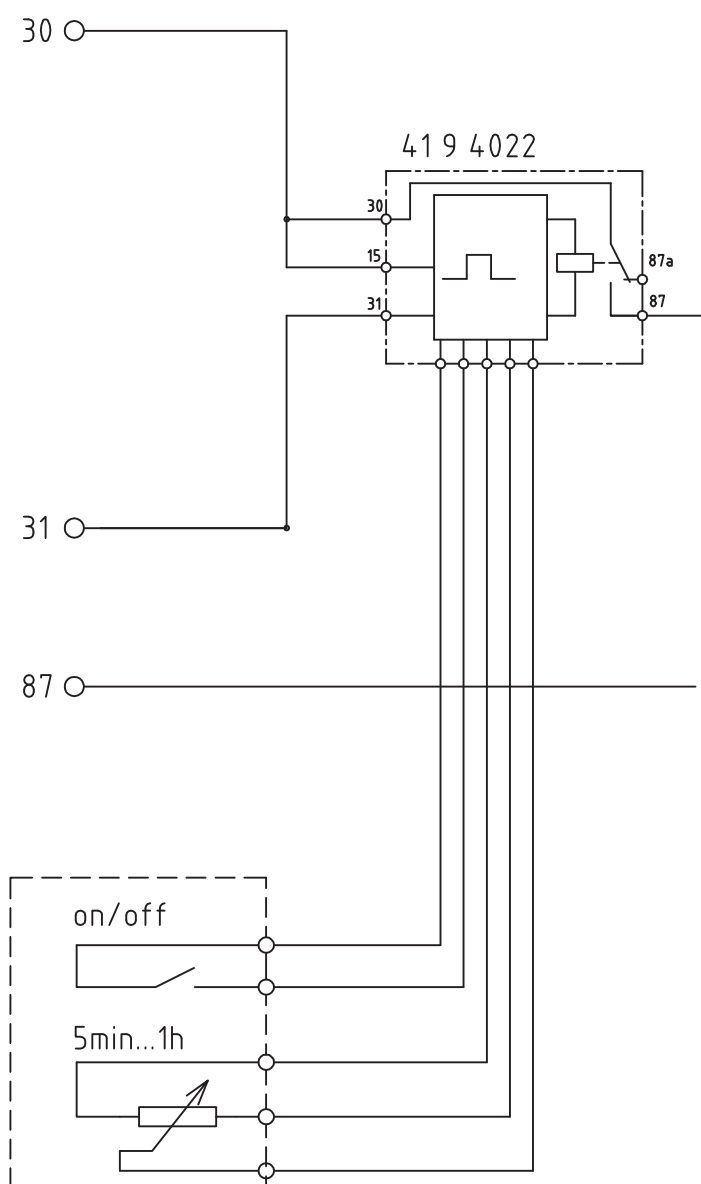


Dimensions in mm

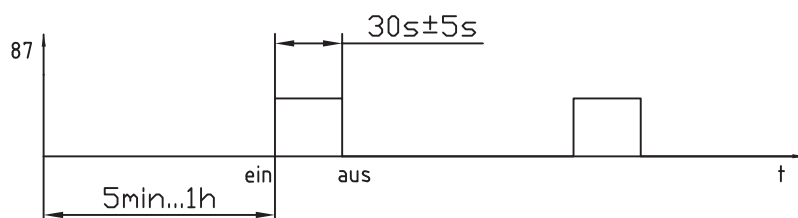
Order number: 41 9 4022

Nominal voltage:	24 V
Operating voltage:	18 V...32 V
Test voltage:	27 V
Switching current:	Normally closed contact 10 A Normally open contact 20 A
Compliance:	Plastic housing with fixation bracket according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
Operating temperature:	-20°C...+80°C
Degree of protection:	Housing IP 53 according to DIN 40 050-9 Pins IP 20 according to DIN 40 050-9 when using plug-in socket
Electromagnetic compatibility:	Interference immunity and interference emission according to RL 72/245/EWG (i.d.F. 95/54/EWG),ISO 7637-2(1990) and ISO/TR 10605

Plan of functions multitimer T100



Function diagram



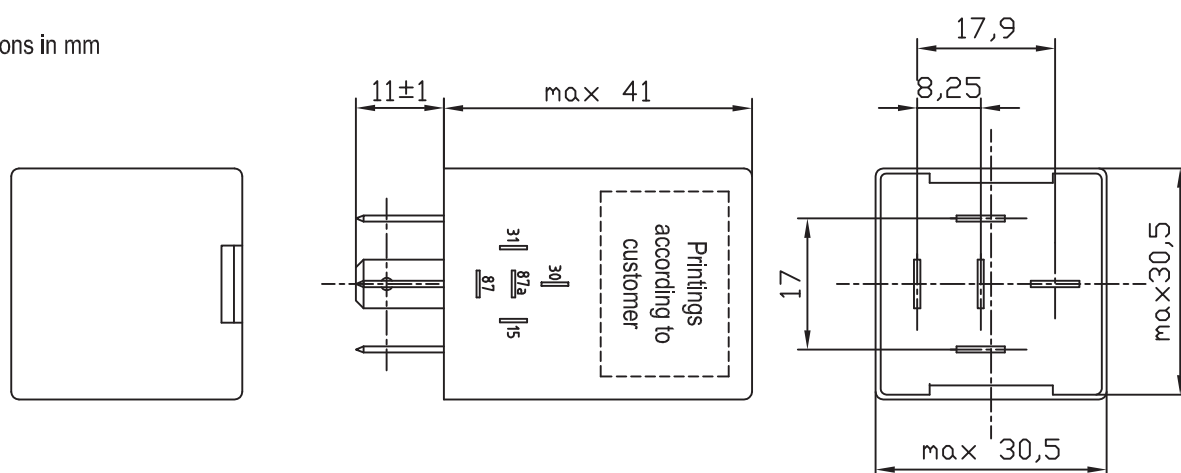
Specification

Time relay, off-delayed

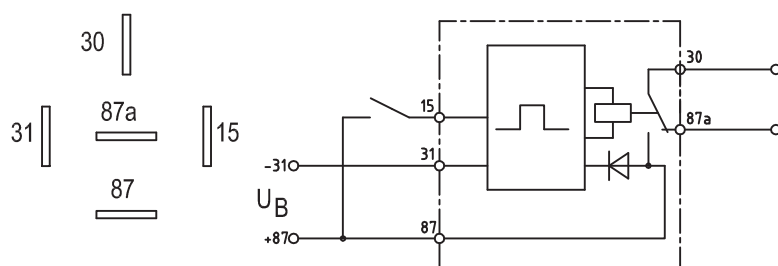
24 V 60s

41 9 4023 S

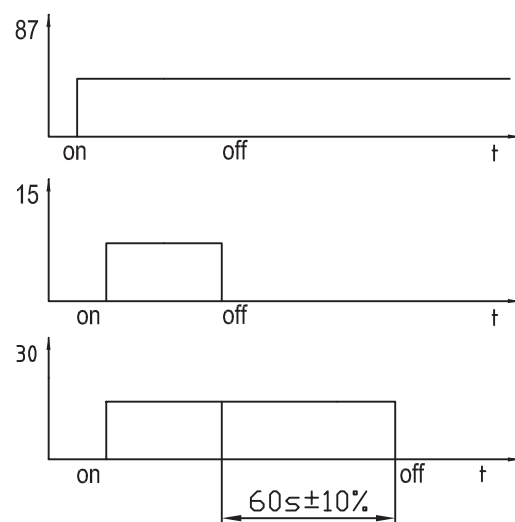
Dimensions in mm



Connection plan



Function diagram



Order number: 41 9 4023

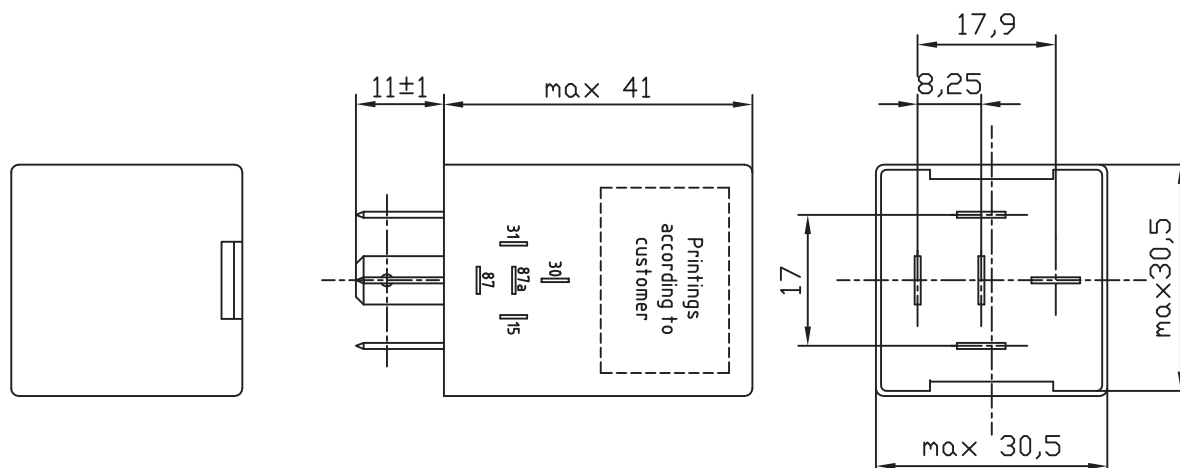
<u>Nominal voltage:</u>	24 V
<u>Operating voltage:</u>	18 V...32 V
<u>Test voltage:</u>	27 V
<u>Overvoltage protection:</u>	Up to 80 V
<u>Switching current:</u>	Normally closed contact 10 A Normally open contact 20 A
<u>Compliance:</u>	Plastic housing with fixation bracket according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Operating temperature:</u>	-20°C...+80°C
<u>Degree of protection:</u>	Housing IP 50 according to DIN 40 050-9 Pins IP 20 according to DIN 40 050-9 when using plug-in socket
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to RL 72/245/EWG (i.d.F. 2006/ 28/ EG), ISO 7637-2
<u>Switching time:</u>	60 ±10% seconds off-delayed, retriggeable

Specification

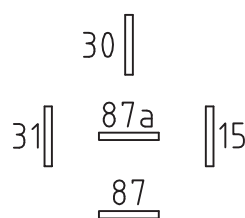
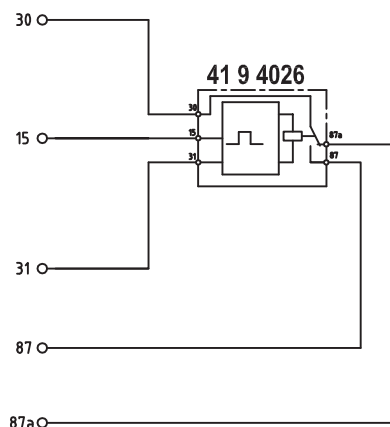
Time Relay, on-delayed

24 V 15s

41 9 4026 S



Connection plan



Dimensions in mm

Order number: 41 9 4026

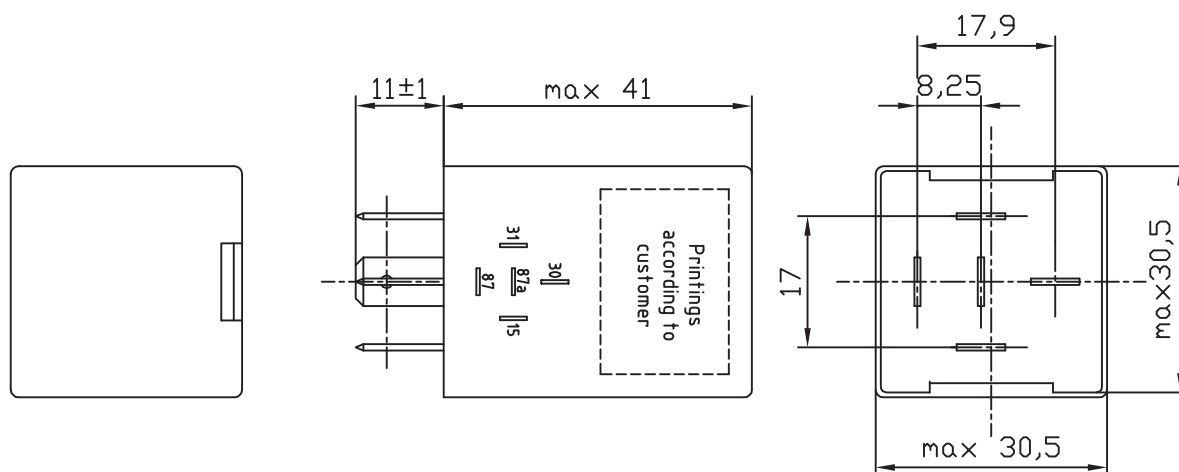
Nominal voltage:	24 V
Operating voltage:	18 V...32 V
Test voltage:	27 V
Overvoltage protection:	Up to 80 V
Switching current:	Normally closed contact 10 A Normally open contact 20 A
Compliance:	Plastic housing with fixation bracket according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
Operating temperature:	-20°C...+80°C
Degree of protection:	Housing IP 53 according to DIN 40 050-9 Pins IP 20 according to DIN 40 050-9 when using plug-in socket
Electromagnetic compatibility:	Interference immunity and interference emission according to RL 72/245/EWG and ISO 7637-2
Switching time:	15 seconds $\pm 10\%$ on-delayed, retriggerable

Specification

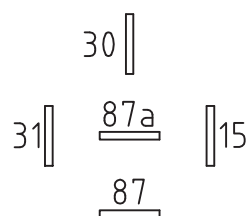
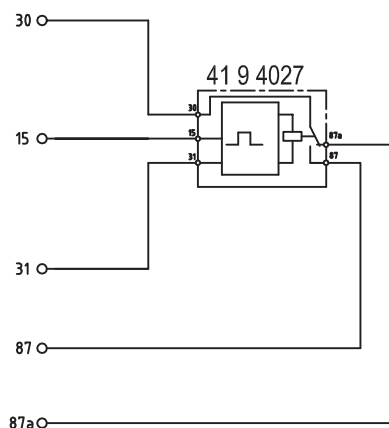
Time Relay, off-delayed

24 V 150s

41 9 4027 S



Connection plan



Dimensions in mm

Order number: 41 9 4027

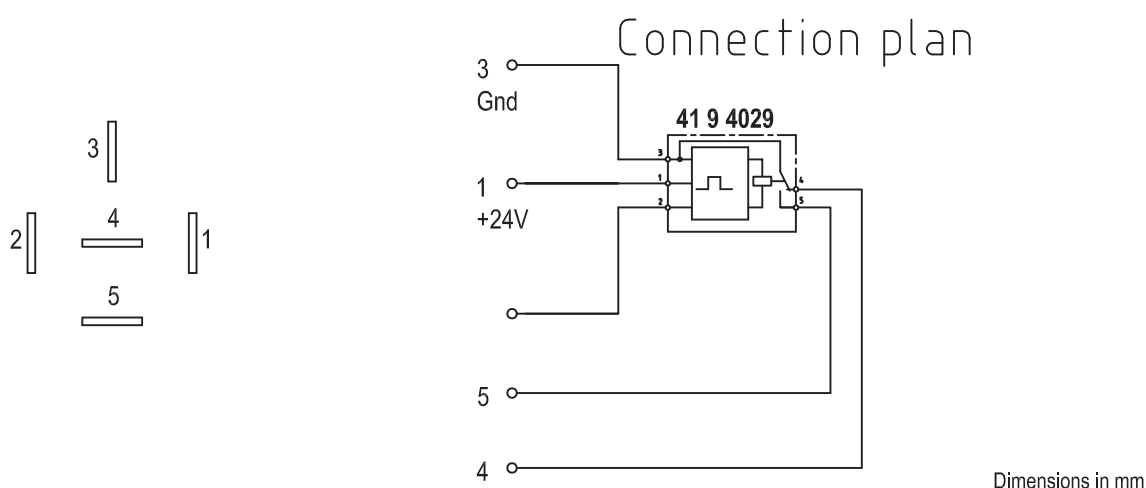
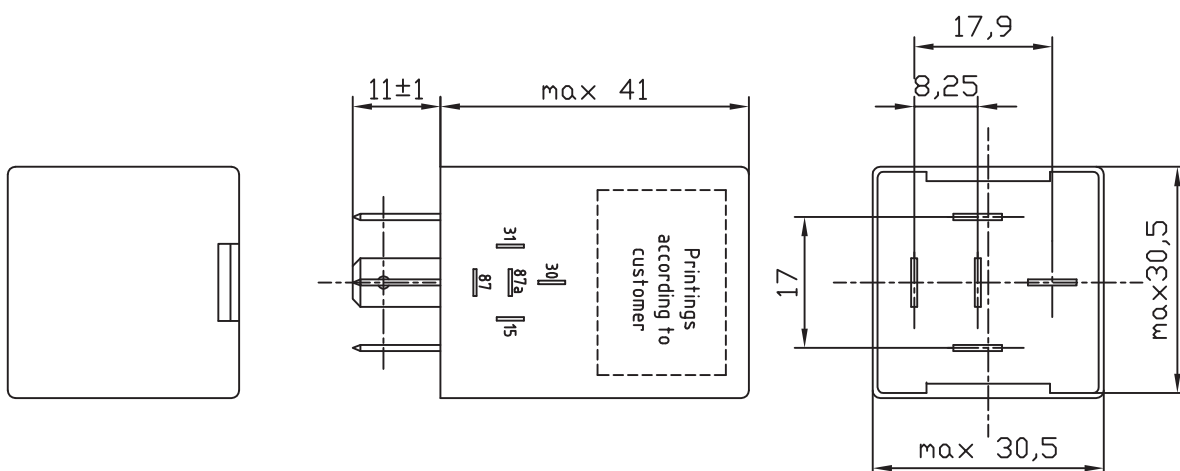
<u>Nominal voltage:</u>	24 V
<u>Operating voltage:</u>	18 V...32 V
<u>Test voltage:</u>	27 V
<u>Overvoltage protection:</u>	Up to 80 V
<u>Switching current:</u>	Normally closed contact 10 A Normally open contact 20 A
<u>Compliance:</u>	Plastic housing with fixation bracket according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Operating temperature:</u>	-20°C...+80°C
<u>Degree of protection:</u>	Housing IP 53 according to DIN 40 050-9 Pins IP 20 according to DIN 40 050-9 when using plug-in socket
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to RL 72/245/EWG and ISO 7637-2
<u>Switching time:</u>	150 seconds ±10% off-delayed, retriggerable

Specification

Time Relay, off-delayed

24 V 60s

41 9 4029 S



Order number: 41 9 4029

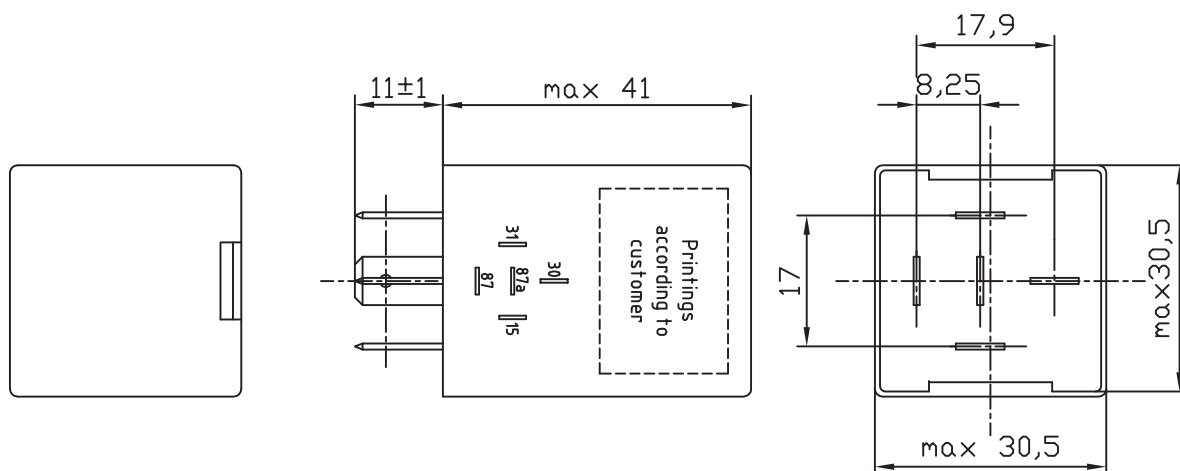
<u>Nominal voltage:</u>	24 V
<u>Operating voltage:</u>	18 V...32 V
<u>Test voltage:</u>	27 V
<u>Overvoltage protection:</u>	Up to 80 V
<u>Switching current:</u>	Normally closed contact 10 A Normally open contact 20 A
<u>Compliance:</u>	Plastic housing with fixation bracket according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Operating temperature:</u>	-20°C...+80°C
<u>Degree of protection:</u>	Housing IP 53 according to DIN 40 050-9 Pins IP 20 according to DIN 40 050-9 when using plug-in socket
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to RL 72/245/EWG and ISO 7637-2
<u>Switching time:</u>	60 seconds ±10% off-delayed, retriggerable

Specification

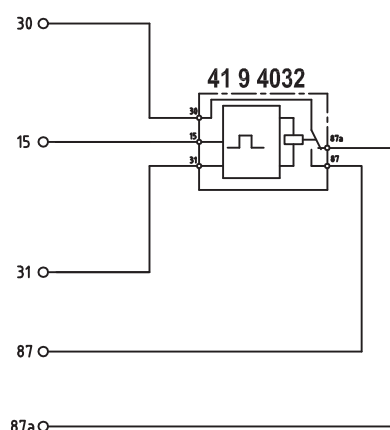
Time Relay, on-delayed

24 V 1,5s

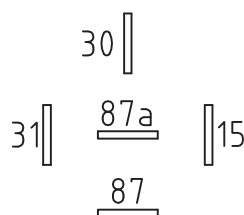
41 9 4032 S



Function diagram time relay



Connection plan



Dimensions in mm

Order number: 41 9 4032

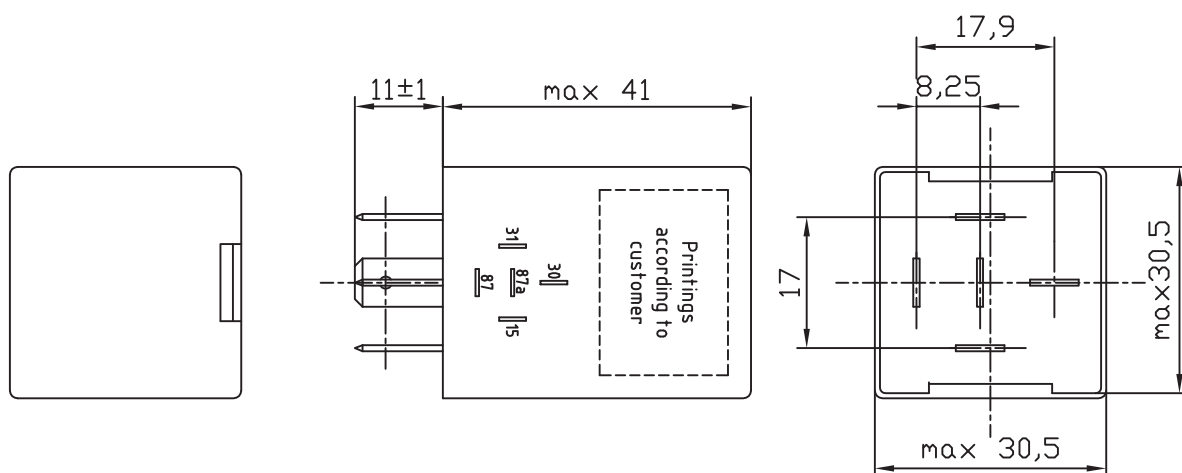
<u>Nominal voltage:</u>	24 V
<u>Operating voltage:</u>	18 V...32 V
<u>Test voltage:</u>	27 V
<u>Overvoltage protection:</u>	Up to 80 V
<u>Switching current:</u>	Normally closed contact 10 A Normally open contact 20 A
<u>Compliance:</u>	Plastic housing with fixation bracket according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Operating temperature:</u>	-40°C...+80°C
<u>Degree of protection:</u>	Housing IP 50 according to DIN 40 050-9 Pins IP 20 according to DIN 40 050-9 when using plug-in socket
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to RL 72/245/EWG and ISO 7637-2
<u>Switching time:</u>	1,5 ± 10% seconds on-delayed, retriggerable, Terminal 15 high-active

Specification

Time Relay, off-delayed

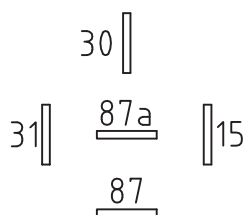
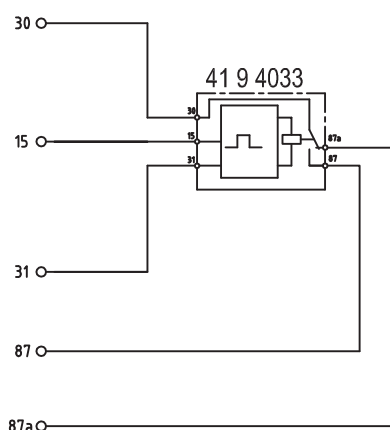
24 V 15s

41 9 4033 S



Function diagram of time relay

Connection plan



Dimensions in mm

Order number: 41 9 4033

<u>Nominal voltage:</u>	24 V
<u>Operating voltage:</u>	18 V...32 V
<u>Test voltage:</u>	27 V
<u>Overvoltage protection:</u>	Up to 80 V
<u>Switching current:</u>	Normally closed contact 10 A Normally open contact 20 A
<u>Compliance:</u>	Plastic housing with fixation bracket according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.
<u>Operating temperature:</u>	-20°C...+80°C
<u>Degree of protection:</u>	Housing IP 50 according to DIN 40 050-9 Pins IP 20 according to DIN 40 050-9 when using plug-in socket
<u>Electromagnetic compatibility:</u>	Interference immunity and interference emission according to RL 72/245/EWG (i.d.F. 95/54/EWG), ISO 7637-2(1990) and ISO/TR 10605
<u>Switching time:</u>	15 secondsn (±10%) off-delayed, retriggerable

Specification

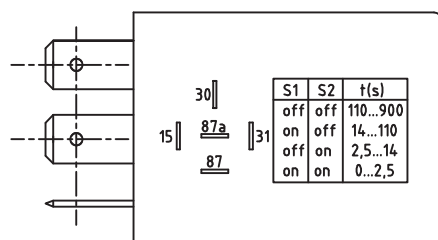
Time Relay, off-delayed

24 V/10 A (0...900) s

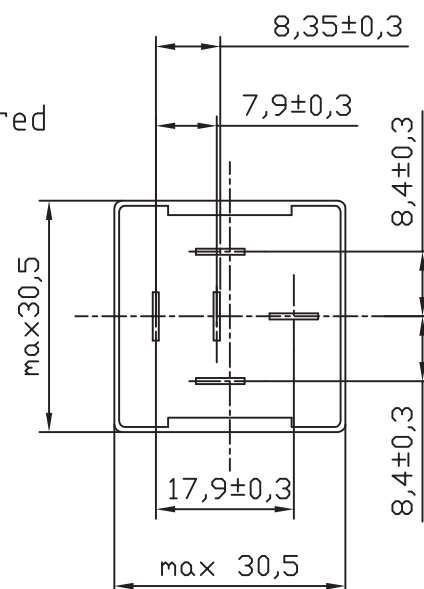
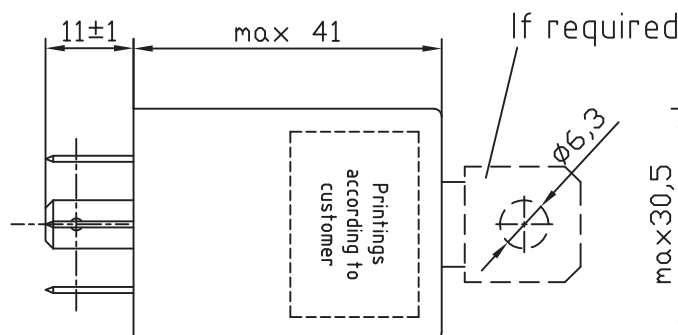
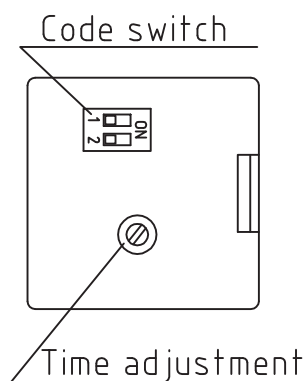
41 9 4052 S

Code

S1	S2	t(s)
off	off	110...900
on	off	14...110
off	on	2,5...14
on	on	0...2,5

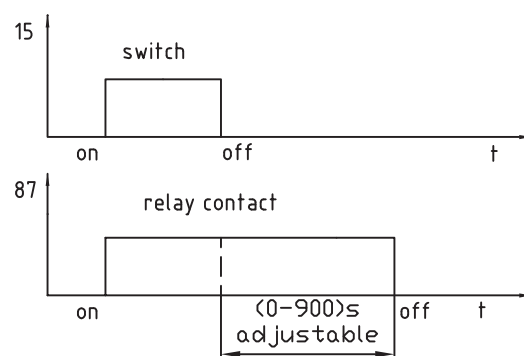
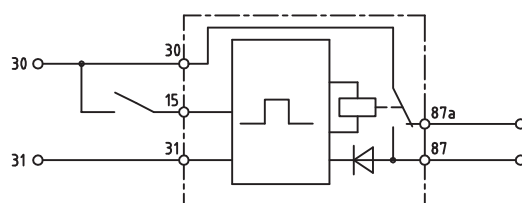
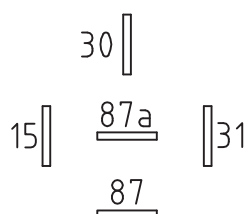


Dimensions in mm



Connection plan

Function diagram



Order number: 41 9 4052

Nominal voltage:

24 V

Operating voltage:

18 V...32 V

Test voltage:

28 V

Switching current:

(24V, resistive load)

Normally closed contact 10 A

Normally open contact 20 A (30 min)

Compliance:

Plastic housing with fixation bracket according to ISO 7588-2 C,
Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.

Operating temperature:

-25°C...+80°C

Degree of protection:

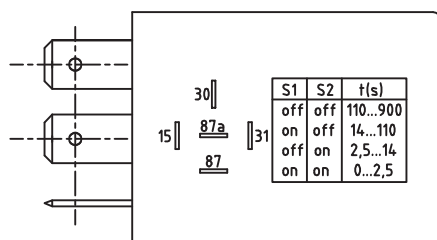
Housing IP 50 according to DIN 40 050-9

Electromagnetic compatibility:

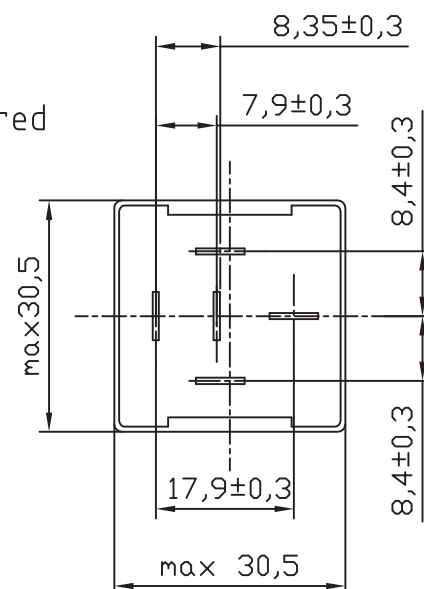
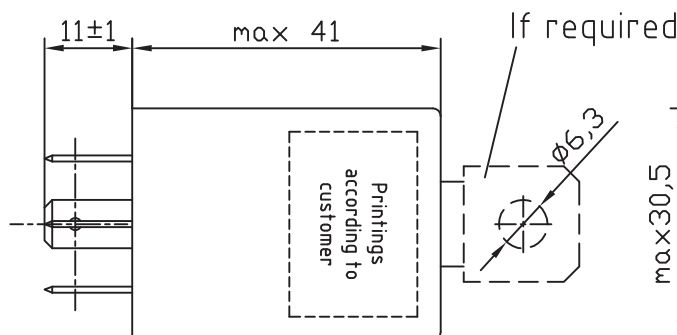
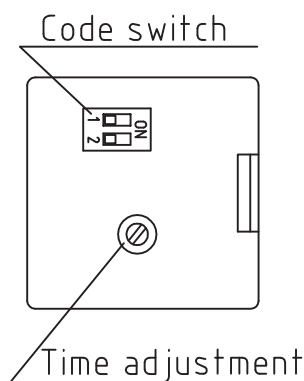
Interference immunity and interference emission according to
RL 72/245/EWG (i.d.F.2006/28/EG) and ISO 7637-1

Code

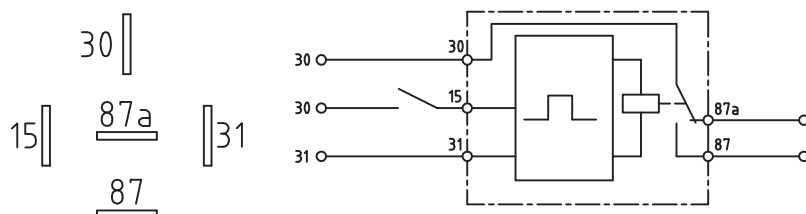
S1	S2	t(s)
off	off	110...900
on	off	14...110
off	on	2,5...14
on	on	0...2,5



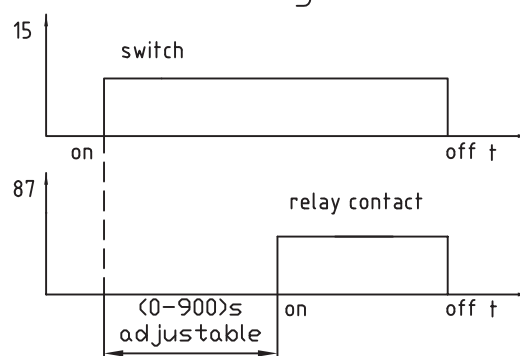
Dimensions in mm



Connection plan



Function diagram



Order number: 41 9 4053

Nominal voltage:

24 V

Operating voltage:

18 V...32 V

Test voltage:

28 V

Switching current:

(24V, resistive load)

Normally closed contact 10 A

Normally open contact 20 A (30 min)

Compliance:

Plastic housing with fixation bracket according to ISO 7588-2 C,
Terminals according to DIN EN ISO 8092-1 6,3x0,8 OH.

Operating temperature:

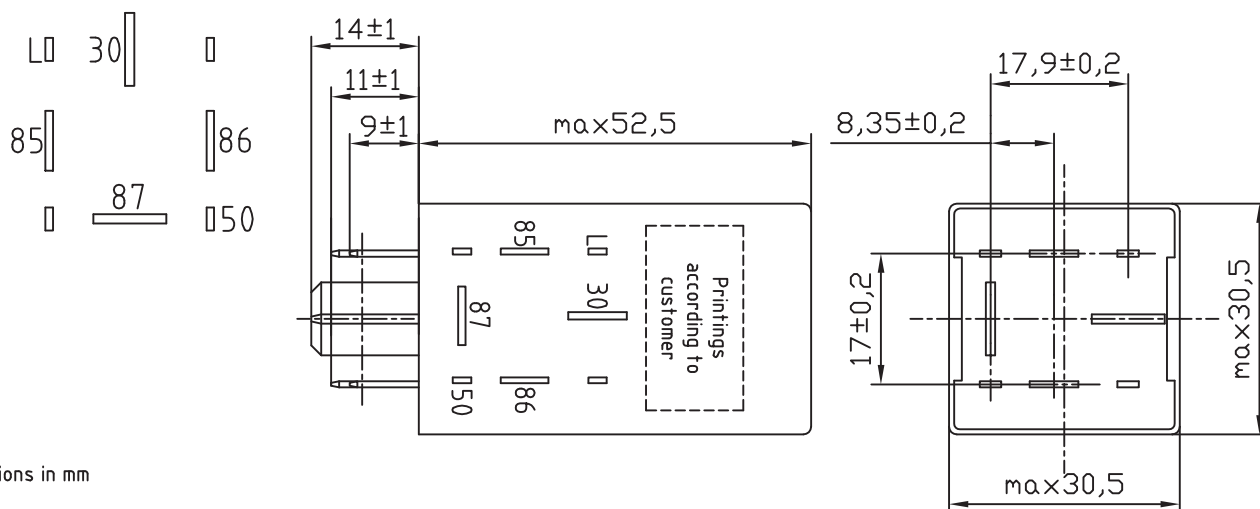
-25°C...+80°C

Degree of protection:

Housing IP 50 according to DIN 40 050-9

Electromagnetic compatibility:

Interference immunity and interference emission according to
RL 72/245/EWG (i.d.F.2006/28/EG) and ISO 7637-2



Dimensions in mm

Order number: 41 9 4014

Usage:

Function:

Control unit for preheating time of diesel engines

After the supply voltage is applied to Pin 85 (-) and Pin 86 (+) the relay switches on and the control light (connected to Pin L) lights up. Start of the preheating phase. The relay switches off after $6,5 \pm 0,5$ s. End of the preheating phase. Switching the relay on again is not possible. By actuating the starter switch Pin 50 is connected to positive potential. Now the lock is removed.

Nominal voltage:

12 V

Operating voltage:

9 V...15V

Test voltage:

13,5 V

Nominal load:

70 A (permanent load)

Preheating time:

(6...7)s

Compliance:

Plastic housing with Terminals according to ISO 7588-2 C, Terminals according to DIN EN ISO 8092-1 9,5x1,2 OH ; 6,3x0,8 OH and 2,8x0,8 OH.

Operating temperature:

-20°C...+60°C

Storage temperature:

-40°C...+85°C

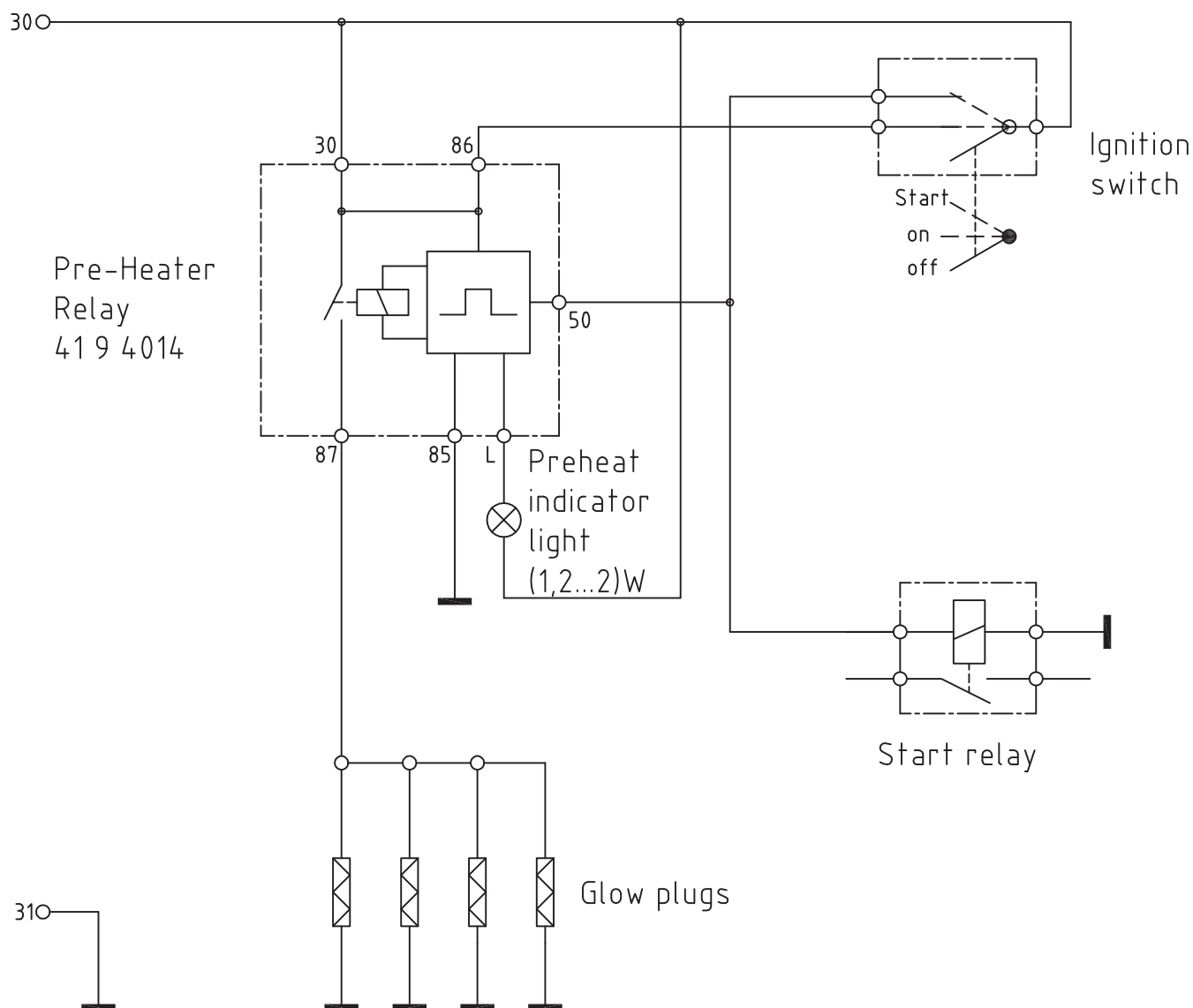
Degree of protection:

Housing IP 5K4 according to DIN 40 050-9
Electrical contacts IP 20 according to DIN 40 050-9
when using a plug-in socket

Electromagnetic compatibility:

Interference immunity and interference emission
according to DIN EN 12895

Connection plan Preheating System



Function diagramm

