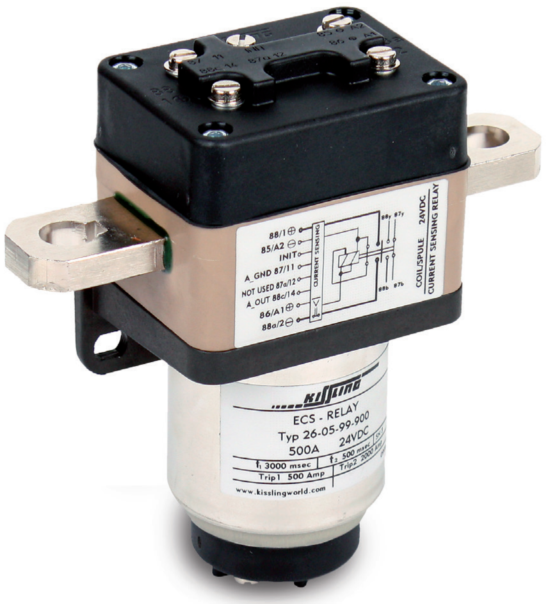


KISSLING HIGH POWER RELAY WITH BIDIRECTIONAL CURRENT SENSING ELECTRONIC

Series 26.99 / 100A| 200A| 300A | 500A

- from TE Connectivity (TE)

The 26.99 series are power relays with an integrated evaluation system. With this series we can respond to your individual requirements of current monitoring. Benefits of this series allow programmable analog outputs, larger current ranges and shutdowns.

Features

- Automatic relay shutdown when over-current is detected in the main circuit (Load circuit).
- Free programmable over-current cut off thresholds up. ± 2000 Amps
- There is the possibility of using a conventional simulation of melting fuse characteristics.
- Optional control input for starter for a measuring technology “Hide“ transient current spikes during the start procedure
- Safety release by low voltage, and over-temperature shutdown feasible.
- Output a status signal to indicate the operating status

Operation

The electronic measures the main current galvanically isolated and switch-OFF the relay whenever the threshold is exceeded. The relay remains switch-OFF until again reset by switching-OFF-ON INIT or switching-ON-OFF the supply voltage.

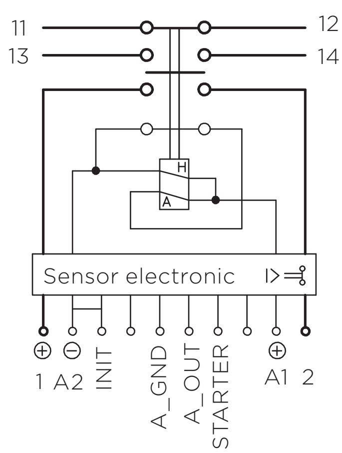
The switching status of all relays with electronic sensing is primarily determined by the input signal (INIT). Even if the supply voltage is sufficient, the relay will only switched-ON after the voltage at the INIT-input falls below 0,5 VDC. IF the relay must be switched-ON directly by supply voltage, then the INIT signal must be drawn to a minus potential through A2 (e.g. wire bridge). If the standard threshold is exceeded, the electronic switches the relay off.

Tripping [switching-OFF] during Low Voltage Conditions

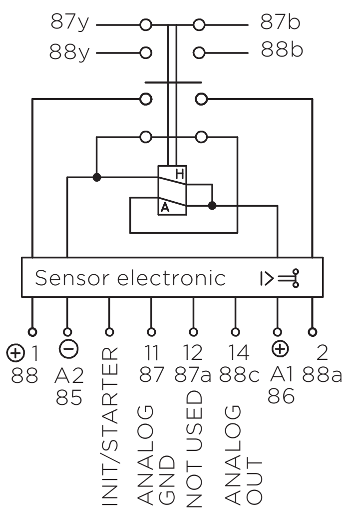
To avoid malfunction, a minimum supply voltage (example 16 VDC) has to be present. The relay cannot be switched-ON under this voltage. If the voltage drops below this value, the relay is switched-OFF and remains turned-OFF, even if the voltage rises back above the required minimum. The relay can only be re-set through INIT and/or if the supply voltage is reactivated through a switch-on function.

Circuits

Relay 100A/200A/300A



Relay 500A



A = Pull in Coil

H = Holding Coil

Specification

Technical Data

Temperature range	-40°C to +85°C			
Dielectric withstanding voltage	1050VAC / 1min at 50Hz			
Continuous current	100A	200A	300A	500A
Overload	1000A - 1sec 250A - 20sec	2000A - 1sec 500A - 20sec	3000A - 1sec 750A - 20sec	5000A - 1sec 1250A - 20sec
Thread sizes / Torque	M3=0.5-0.6Nm | M3.5=1.1.-1.2Nm | M4=2.0-2.2Nm | M8=12-13Nm | M10=15-20Nm			
Mounting position	optional			

Rated contact load	100A	200A	300A	500A
Cycles	50.000	50.000	50.000	50.000
Mechanical life	100.000 cycles	100.000 cycles	100.000 cycles	100.000 cycles

Coil Data	100A	200A	300A	500A
Voltage range	18-32VDC			
Nominal voltage	24VDC			
Min. operational voltage	15VDC			
Spikes	70VDC - 50msec			
Pull in current	6A - 50msec	4A - 50msec	4A - 50msec	8A - 50msec
Operational current	0.25A	0.3A	0.3A	0.4A
Wire section	25mm² | AWG3 0.039 sq.inch	70mm² | AWG00 / 0.109 sq.inch	95mm² | AWG0000 0.147 sq.inch	240mm² | MCM100 0.372 sq.inch

Operating times	
Inrush trip prevention (t1)	from 100msec
Operate, bounce and runtime	approx. 100msec
Release incl. runtime	approx. 50msc

Auxiliary contact	
Make & break	6A
Continuous current	2A

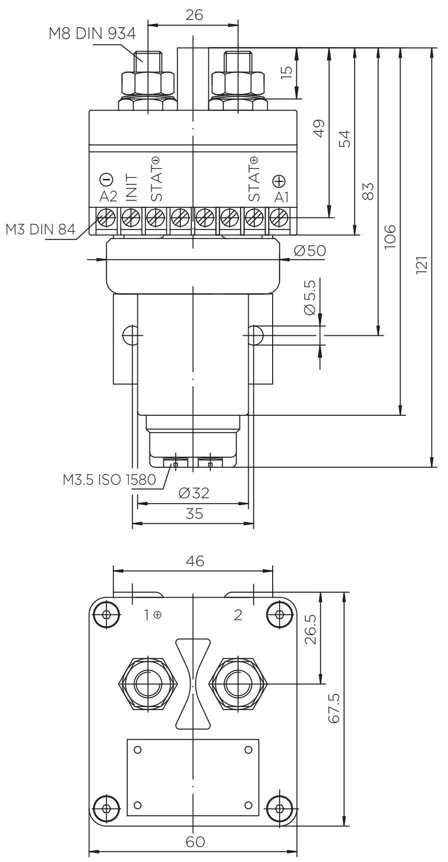
Control Input	INIT	STARTER
Contril Signal	< 0.5V LOW / > 4V HIGH	< 5V LOW / > 9V HIGH

Status Output	
Status Signal	active low impendance
Output current	max. 200mA
Residual voltage	max. 1VDC

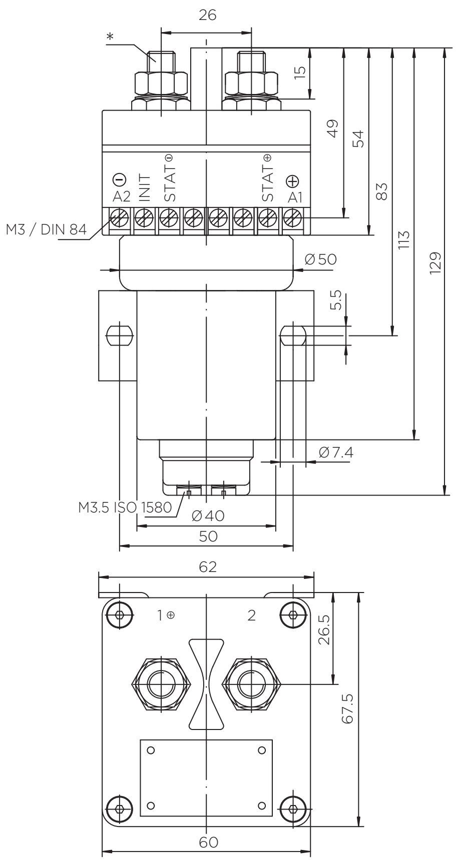
Analog Output	
Output signal	0 - 5VDC
Accuracy	5% ± 5A

Technical drawings

Relay 100A 26.60.99

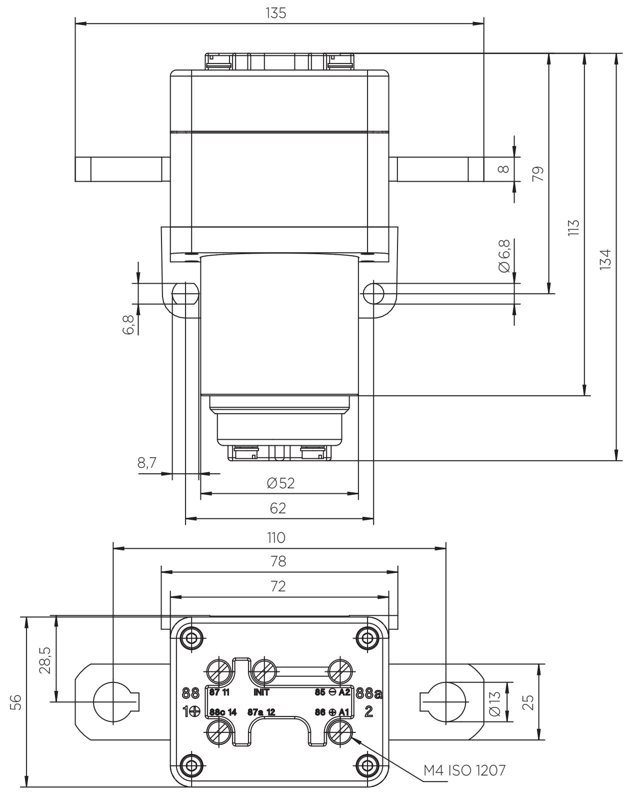


Relay 200A 26.08.99*
Relay 300A 26.56.99**



* Main terminal M8 / DIN 934
** Main terminal M10 / DIN 934

Relay 500A 26.05.99



Terminals

A1+/A2–:
Current and voltage supply. Polarity and peak protected.

INIT:
5 V control input signal. When the voltage drops below 0.5 VDC the relay is switched-ON (active LOW).

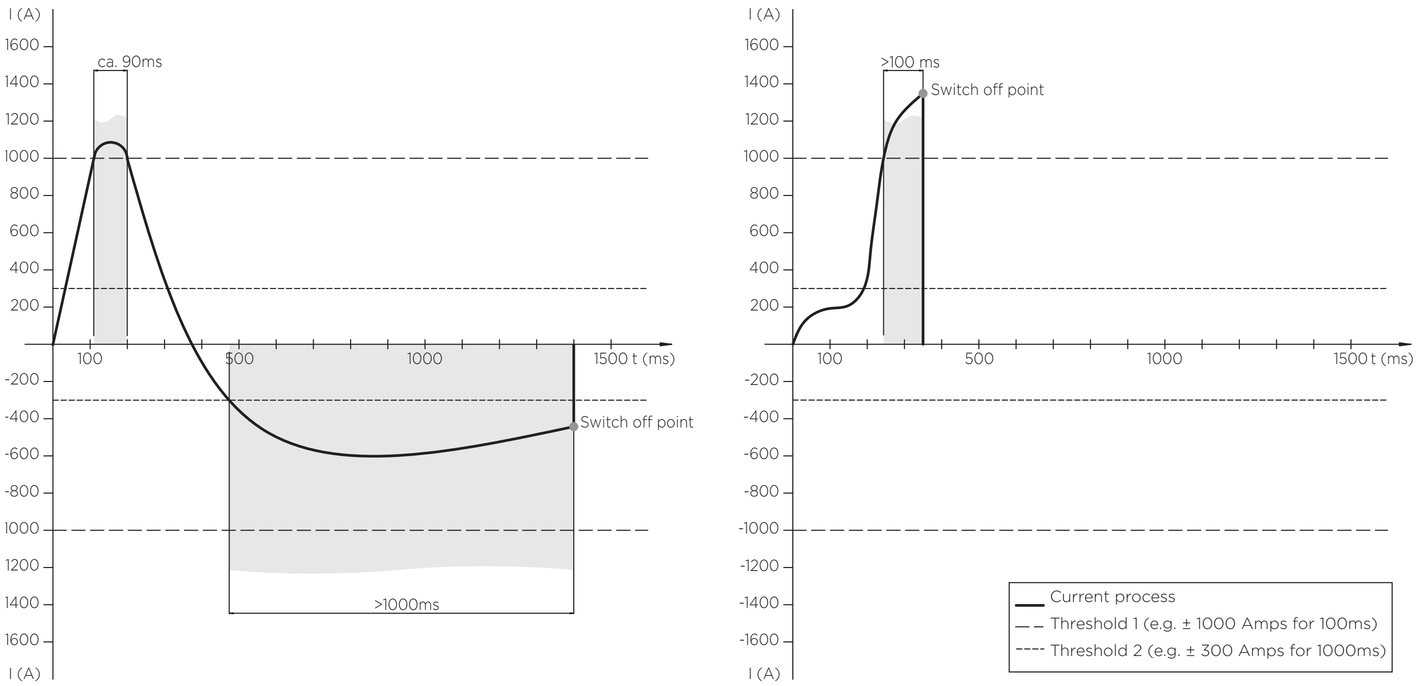
STARTER:
A voltage-value 9 VDC disconnects at cut-off threshold (active HIGH).

STAT+/STAT–:
The galvanic insulated status output can switch a maximum of 200 mAmp. The status signal is active (Low ohmic resistance) whenever an overload current un the main current or a low voltage in the supply circuit has been detected. When the relay is switched-OFF (opening of INIT input or switching-OFF the supply voltage), the Status signal is reset (HIGH ohmic resistance). Status signal is currently available only for 100A, 200A and 300A Relays.

A_OUT/A_GND:
Analog voltage 0 – 5 VDC

Mechanical auxiliary contacts:
Optional possible.

Operational characteristics and terminology



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K1166713 | Version 11/2020