

PHYSICAL REQUIREMENTS:

- PART IS PERMANENTLY MARKED (PRINTED OR MOLDED) WITH THE FOLLOWING ON THE RELAY COVER:
  - MANUFACTURING DATE CODE
  - MANUFACTURING PART NUMBER
  - COUNTRY OF ORIGIN
  - 24V ON ANY SURFACE
- INDIVIDUAL TERMINALS ARE IDENTIFIED WITH NUMBERS AS SHOWN IN TABLE 1.

TABLE 1

COIL	85(+), 86(-)
MOVEABLE (COMMON)	30
NORMALLY OPEN	87
NORMALLY CLOSED	87a

- COVER MATERIAL, BASE MATERIAL AND TERMINALS MATERIAL:
  - HOUSING MATERIAL: PA66 - COLOR BLACK
  - BASE MATERIAL: PA66 - COLOR BLACK
- CONTACT MATERIAL: SILVER TIN-OXIDE.
- NO HEXAVALENT CHROMIUM ON PARTS/COMPONENTS FROM MATERIALS OR PROCESSES.
- TERMINALS MUST BE FREE OF BURRS WHICH MAY BE DETRIMENTAL TO HANDLING, ASSEMBLY OR FUNCTION.
- TERMINALS WITH HOLES ARE PERMITTED.
- TERMINALS ARE PLATED WITH TIN.

PERFORMANCE REQUIREMENTS:

1. FUNCTIONAL PERFORMANCE PARAMETERS SHALL BE AS IN TABLE 2:

TABLE 2

RELAY TYPE	TEMPERATURE	COIL RESISTANCE	OPERATE VOLTAGE	RELEASE VOLTAGE	N/O CONTACT VOLTAGE DROP AT 10A	C/O CONTACT VOLTAGE DROP AT 10A
	(°C)	(Ω)	(V)	(V)	(mV)	(mV)
MINI C/O	-40	209 ± 10%	12.2	3.1	15-200	20-250
	23	268 ± 10%	16	4		
	85	332 ± 10%	20	5		
	125	374 ± 10%	22.5	5.6		

+1) VALUE WITHOUT COMPONENT IN PARALLEL (PARALLEL RESISTOR 1200 Ω)

- COIL INDUCTANCE 0.5 - 1.1 H
- ALL RELAYS MUST COMPLY WITH THE TE-DATASHEET:
  - OPERATING TEMPERATURE FROM -40° C TO ±125° C
  - RELAYS WILL BE CAPABLE OF SWITCHING THE FOLLOWING LOADS AT 23° C:
    - RESISTIVE LOAD (100,000 CYCLES)
      - NORMALLY OPEN, 30A/28VDC
      - RESISTIVE LOAD (500,000 CYCLES)
        - NORMALLY CLOSED, 10A/28VDC
    - LIMITING CONTINUOUSLY CURRENT (MAX.150° C AT TERMINALS)
      - 60A(IN1/45A(INC) AT 23° C
      - 40A(IN1/30A(INC) AT 85° C
      - 17A(IN1/12A(INC) AT 125° C

OTHER DATA:

- MECHANICAL ENDURANCE: >1x10<sup>7</sup> OPS.
- DIELECTRIC STRENGTH: 500Vrms
- CLIMATIC CYCLING WITH CONDENSATION, EN ISO 6988: 6 CYCLES, STORAGE 8/16h
- TEMPERATURE CYCLING, IEC 60068-2-14, Nb: 10 CYCLES, -40/+85° C(5° C/min)
- DAMP HEAT CYCLIC, IEC 60068-2-30, Db, Variant 1: 6 CYCLES, UPPER AIR TEMP.55° C
- DAMP HEAT CONSTANT, IEC 60028-2-3, Ca: 56 DAYS
- CORROSIVE GAS
  - IEC 60068-2-42: 10±2cm<sup>3</sup>/m<sup>3</sup> SO<sub>2</sub>, 10 DAYS
  - IEC 60068-2-43: 1±0.3cm<sup>3</sup>/m<sup>3</sup> H<sub>2</sub>S, 10 DAYS
- VIBRATION RESISTANCE (FUNCTIONAL), IEC 60068-2-6 (SINE SWEEP): 10 TO 500Hz > 5g
- SHOCK RESISTANCE (FUNCTIONAL), IEC 60068-2-27 (HALF SINE): 11ms > 20g
- DROP TEST, FREE FALL, IEC 60068-2-32: 1m ONTO CONCRETE
- COVER RETENTION
  - AXIAL FORCE: 150N
  - PULL FORCE: 150N
  - PUSH FORCE: 150N
- TERMINAL RETENTION
  - PULL FORCE: 100N
  - PUSH FORCE: 100N


THIS PART HAS RECEIVED A TRADEMARK EXEMPTION NUMBER: 13-000742A

Mounting position: any  
 Storage temperature: 95° C 2h  
 Flammability: UL94HB  
 Protection class: IP54  
 ELV / Rohs compliant

Voltage range: 16V - 32V  
 Min. load: 1A / 5V  
 Operate time at nominal voltage: typ 7ms  
 Release time at nominal voltage: typ 2ms  
 Bouncing time n/o-contact at nominal voltage: max. 1ms  
 Switch-off voltage peak: <100V at 24V

Parts dropped in transit or during manufacture shall be treated as rejects and shall be placed in corresponding containers

FET : 02/17

Anderung n. n. Org./ Revision w. n. Orig.					09.12.16	21.12.16	
MAN-Erstfreigabe/ MAN 1st release	X	b	81.79003.0	08.12.16	V.Polunski	W.Gottwa. Scheiben.	
Abt.-Werkpl./ Dept.-Plant:	EEHC-M	A.Ind./ Rev.	And.-Nr./ Rev. no.	Datum/ Date	Bearb./ Drawn	Ko.-Freig./ Design-rel.	
 MAN Truck & Bus AG Werk München		Sachnummer/Identification no. <b>81.25902-0563</b>				Blatt/Sheet 02	
CAD-Fremdzeichnung in CATIA/3rd party CAD drawing in CATIA Die Identität mit dem Original wird bestätigt./ Identity with the original (drawing) is confirmed						Lastenheft specification:	

MAN Ben. : RELAIS WECHSLER  
 MAN Title: RELAY WECHSLER

100  
90  
80  
70  
60  
50  
40  
30  
20  
10  
0

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APPLICABLE SPEC.:		FINISH	
TOLERANCE UNLESS SPECIFIED OTHERWISE		SCALE	WEIGHT
DIMENSIONS IN MM		MATERIAL	
DATE		PART NAME	
CWN. APP. REV. LOCATION		DATA SHEET V23134-A0056-X433	
B Initial Release 04NOV2016 KBler		DWG NO.	
REV. CHANGE ORDER	DATE	APP.	SHT. 1 OF 1



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