







ZIEHL industrie-elektronik GmbH + Co KG, Daimlerstrasse 13, 74523 Schwaebisch Hall Tel +49 791 504-0 verkauf@ziehl.de		 December 8, 2022 www.ziehl.de	
Type	Order-number	Texts for tenders, tender specification	Datasheet
COSFI100V	P222534	Load and current monitor for over- and underload Monitoring of current direction at generators optimizing of own consumption of energy in photovoltaic plants warning or shut down when energy is delivered instead of consumer digital display for power factor and true current over- and underload, power factor and real current programmable switching actions programmable number of attempts for restart integrated evaluation of PTC (thermistors) code protection for settings housing width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 230 V Manufacturer ZIEHL industrie-elektronik, COSFI100V, P222534 or equal	Documents
DRR10	P222546	Phase sequence relay with automatic changing of sequence integrated monitoring of PTC sensors max. 3 x 12 A housing width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 400 V Manufacturer ZIEHL industrie-elektronik, DRR10, P222546 or equal	Documents
DRR20	P222551	Phase sequence relay with automatic changing of sequence connection of 2 external contactors integrated monitoring of asymmetry, adjustable 5...25 % integrated monitoring of undervoltage adjustable 70...95 % alarm delay adjustable 0,1...10 s measuring voltage = supply voltage =3 AC 400 V display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Manufacturer ZIEHL industrie-elektronik, DRR20, P222551 or equal	Documents
EFR4001IP	S225762	Relay for Energy Flow, Zero Export Relay Pav,e monitoring, certified according to VDE-AR-N 4105:2018-11 Optimization of consumption of own energy Measuring transducer for power up to 1.000 kW Zero Export Device, switch off within at inadmissible feed in that is contrary to contract IP-connection, integrated webserver 3 inputs for customary current transformers with secondary 1 or 5 A 4 digital inputs Y1-1 for control signals Switching of up to 3 consumers, stepless regulation of 1 consumer Switch on and off points, on and off delay and minimum on time programmable output relay 3 x changeover contacts 2 analog outputs as measuring transducer or regulation of consumer Colored LCD display housing width 140 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, EFR4001IP, S225762 or equal	Documents
FR1000	U226135	Frequency- and speed-relay with analog output measuring inputs AC voltage 20-200 / 80-440 V, monitoring range 10-500 Hz measuring input speed for proximity switches, 2-/3-wire, PNP/NPN, 5-99999 IMP/min display 5 digit, setting of limits in Hz or 1/min limits, hysteresis, switching times, enable time and function of relays programmable 2 alarms each over, under or window 2 output relay with change over contacts code protection for settings housing width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, FR1000, U226135 or equal	Documents


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FRMU1000	U226134	Frequency- and speed-relay with analog output measuring inputs AC voltage 20-200 / 80-440 V, monitoring range 10-500 Hz measuring input speed for proximity switches, 2-/3-wire, PNP/NPN, 5-99999 IMP/min display 5 digit, setting of limits in Hz or 1/min limits, hysteresis, switching times, enable time and function of relays programmable 2 alarms each over, under or window 2 output relay with change over contacts programmable analog output 0-10 V, 0/4-20 mA with insulation to input voltage code protection for settings housing width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, FRMU1000, U226134 or equal	Documents
FRMU1000	U226138	Frequency- and speed-relay with analog output measuring inputs AC voltage 110-300 / 210-830 V, monitoring range 10-500 Hz measuring input speed for proximity switches, 2-/3-wire, PNP/NPN, 5-99999 IMP/min display 5 digit, setting of limits in Hz or 1/min limits, hysteresis, switching times, enable time and function of relays programmable 2 alarms each over, under or window 2 output relay with change over contacts programmable analog output 0-10 V, 0/4-20 mA with insulation to input voltage code protection for settings housing width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, FRMU1000, U226138 or equal	Documents
MINIPAN 300 AC	D440320	Digital Panelmeter measuring inputs AC 150 mV, 10/50/500 V, 1 A, scaleable storing of MIN and MAX values code protection for settings 4 digits, 14 mm high front panel 36 x 72 mm, mounting depth 84 mm Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, MINIPAN 300 AC, D440320 or equal	Documents
MINIPAN 300 DC	D440300	Digital Panelmeter measuring inputs DC 300 mV, 10/100/500 V, 0/4-20 mA, 1 A, scaleable storing of MIN and MAX values code protection for settings 4 digits, 14 mm high front panel 36 x 72 mm, mounting depth 84 mm Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, MINIPAN 300 DC, D440300 or equal	Documents
MINIPAN 300 Pt 100	D440340	Digital Panelmeter measuring input Pt 100 (RTD) 2- or 3-wire measuring range -199,9...+850,0 °C, display in °C or °F storing of MIN and MAX values code protection for settings 4 digits, 14 mm high front panel 36 x 72 mm, mounting depth 84 mm Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, MINIPAN 300 Pt 100, D440340 or equal	Documents


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MINIPAN 350 AC	D890210	Measuring Instrument für DIN-rail mount measuring inputs AC 150 mV, 10/50/500 V, 1 A, scaleable storing of MIN and MAX values code protection for settings 4 digits, 7 mm high width 35 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, MINIPAN 350 AC, D890210 or equal	Documents
MINIPAN 350 DC	D890110	Measuring Instrument für DIN-rail mount measuring inputs DC 300 mV, 10/100/500 V, 0/4-20 mA, 1 A, scaleable storing of MIN and MAX values code protection for settings 4 digits, 7 mm high width 35 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, MINIPAN 350 DC, D890110 or equal	Documents
MINIPAN 350 Pt 100	D890310	Measuring Instrument für DIN-rail mount measuring input Pt 100 (RTD) 2- or 3-wire measuring range -199,9...+850,0 °C, display in °C or °F storing of MIN and MAX values code protection for settings 4 digits, 7 mm high width 35 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, MINIPAN 350 Pt 100, D890310 or equal	Documents
MINIPAN 352 P	D440200	Universal Digital Panelmeter measuring temperature: Pt 100 (RTD), Pt 1000, KTY 83/84, 2- and 3-wire, thermocouples B, E, J, K, L, N, R, S, T measuring inputs AC/DC: 300 mV, 1/5 A, 0/4-20 mA, 10 V, 500 V (true RMS) measuring resistance: 0...500 Ohm, 0...300 kOhm supply-voltage for external measuring transducer 4-20 mA 2 alarms with individually programmable functions storing of MIN and MAX values code protection for settings, EasyLimit for alarm settings output relays 2 change-over contacts 4 digits, 14 mm high front panel 72 x 72 mm, mounting depth 97 mm Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, MINIPAN 352P, D440200 or equal	Documents
MINIPAN 352 P	D440210	Universal Digital Panelmeter measuring temperature: Pt 100 (RTD), Pt 1000, KTY 83/84, 2- and 3-wire, thermocouples B, E, J, K, L, N, R, S, T measuring inputs AC/DC: 300 mV, 1/5 A, 0/4-20 mA, 10 V, 500 V (true RMS) measuring resistance: 0...500 Ohm, 0...300 kOhm supply-voltage for external measuring transducer 4-20 mA programmable analog output 4-20 mA, insulated from inputs and supply 2 alarms with individually programmable functions storing of MIN and MAX values code protection for settings, EasyLimit for alarm settings output relays 2 change-over contacts 4 digits, 14 mm high front panel 72 x 72 mm, mounting depth 97 mm Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, MINIPAN 352P, D440210 or equal	Documents


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MINIPAN 352 V	D340101	<p>Universal Measuring Instrument für DIN-rail mount measuring temperature: Pt 100 (RTD), Pt 1000, KTY 83/84, 2- and 3-wire, thermocouples B, E, J, K, L, N, R, S, T measuring inputs AC/DC: 300 mV, 1/5 A, 0/4-20 mA, 10 V, 500 V (true RMS) measuring resistance: 0...500 Ohm, 0...300 kOhm supply-voltage for external measuring transducer 4-20 mA 2 alarms with individually programmable functions storing of MIN and MAX values code protection for settings, EasyLimit for alarm settings output relays 2 change-over contacts 4 digits, 14 mm high width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, MINIPAN 352V, D340101 or equal</p>	Documents
MINIPAN 352 V	D340110	<p>Universal Measuring Instrument für DIN-rail mount and measuring transducer measuring temperature: Pt 100 (RTD), Pt 1000, KTY 83/84, 2- and 3-wire, thermocouples B, E, J, K, L, N, R, S, T measuring inputs AC/DC: 300 mV, 1/5 A, 0/4-20 mA, 10 V, 500 V (true RMS) measuring resistance: 0...500 Ohm, 0...300 kOhm supply-voltage for external measirung transducer 4-20 mA progammable analog output 4-20 mA, insulated from inputs and supply 2 alarms with individually programmable functions storing of MIN and MAX values code protection for settings, EasyLimit for alarm settings output relays 2 change-over contacts 4 digits, 14 mm high width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, MINIPAN 352V, D340110 or equal</p>	Documents
MINIPAN SE352	D440101	<p>Universal Digital Panelmeter measuring temperature: Pt 100 (RTD), Pt 1000, KTY 83/84, 2- and 3-wire, thermocouples B, E, J, K, L, N, R, S, T measuring inputs AC/DC: 300 mV, 1/5 A, 0/4-20 mA, 10 V, 500 V (true RMS) measuring resistance: 0...500 Ohm, 0...300 kOhm supply-voltage for external measuring transducer 4-20 mA 2 alarms with individually programmable functions storing of MIN and MAX values code protection for settings, EasyLimit for alarm settings output relays 2 change-over contacts 4 digits, 14 mm high front panel 48 x 96 mm, mounting depth 98 mm Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, MINIPAN SE352, D440101 or equal</p>	Documents
MINIPAN SE352	D440110	<p>Universal Digital Panelmeter measuring temperature: Pt 100 (RTD), Pt 1000, KTY 83/84, 2- and 3-wire, thermocouples B, E, J, K, L, N, R, S, T measuring inputs AC/DC: 300 mV, 1/5 A, 0/4-20 mA, 10 V, 500 V (true RMS) measuring resistance: 0...500 Ohm, 0...300 kOhm supply-voltage for external measuring transducer 4-20 mA progammable analog output 4-20 mA, insulated from inputs and supply 2 alarms with individually programmable functions storing of MIN and MAX values code protection for settings, EasyLimit for alarm settings output relays 2 change-over contacts 4 digits, 14 mm high front panel 48 x 96 mm, mounting depth 98 mm Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, MINIPAN SE352, D440110 or equal</p>	Documents


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MS220C	T221804	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 Relay 1 change-over contact, autoreset, closed current mode Compact-housing, HxWxD = 72 x 33x x60 mm snap-on mounting on DIN-rail or with screws Supply voltage AC 220-240 V GL-approval UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MS220C, T221804 or equal	Documents
MS220C	T221830	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 Relay 1 change-over contact, autoreset, closed current mode Compact-housing, HxWxD = 72 x 33x x60 mm snap-on mounting on DIN-rail or with screws Supply voltage AC/DC 24 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MS220C, T221830 or equal	Documents
MS220C	T221821	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 Relay 1 change-over contact, autoreset, closed current mode Compact-housing, HxWxD = 72 x 33x x60 mm snap-on mounting on DIN-rail or with screws Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MS220C, T221821 or equal	Documents
MS220K	T221745	PTC-Resistor-Relay (Thermistor Relay) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 Relay 1 change-over contact, autoreset, closed current mode display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 220-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MS220K, T221745 or equal	Documents
MS220K	T221741	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 Relay 1 change-over contact, autoreset, closed current mode display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MS220K, T221741 or equal	Documents
MS220K	T221765	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 Relay 2 change-over contacts, autoreset, closed current mode display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 220-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MS220K, T221765 or equal	Documents
MS220K	T221761	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 Relay 2 change-over contacts, autoreset, closed current mode display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MS220K, T221761 or equal	Documents


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Type	Order-number	Texts for tenders, tender specification	Datasheet
MS220K	T221749	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 Relay 1 change-over contact, 1 normally closed contact, autoreset, closed current mode display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MS220K, T221749 or equal	Documents
MS220K2	T221925	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit), 2 channels for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 Relay 2 x 1 change-over contact, autoreset, closed current mode display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 230 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MS220K2, T221925 or equal	Documents
MS220K2	T221923	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit), 2 channels for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 Relay 2 x 1 change-over contact, autoreset, closed current mode display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MS220K2, T221923 or equal	Documents
MS220KA	T222445	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 ATEX-approval acc. to RL2014/34/EU, Ex II (2) G and D, PTB 12 ATEX 3006, SIL 1 (IEC 61508), PL c (ISO 13849) Application as a protection device against inadmissible heating up at electrical equipment in areas with explosive gases (zones 1 and 2) and in areas with combustible dust (21 and 22), e.g. for direct monitoring of explosion proof motors Ex e and Ex d Short-circuit monitoring of sensor circuit Relay 1 change-over contact, autoreset, closed current mode display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 220-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MS220KA, T222445 or equal	Documents
MS220KA	T222455	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 ATEX-approval acc. to RL2014/34/EU, Ex II (2) G and D, PTB 12 ATEX 3006, SIL 1 (IEC 61508), PL c (ISO 13849) Application as a protection device against inadmissible heating up at electrical equipment in areas with explosive gases (zones 1 and 2) and in areas with combustible dust (21 and 22), e.g. for direct monitoring of explosion proof motors Ex e and Ex d Short-circuit monitoring of sensor circuit Relay 2 change-over contacts, autoreset, closed current mode display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 220-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MS220KA, T222455 or equal	Documents


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MS220KA	T222451	<p>PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 ATEX-approval acc. to RL2014/34/EU, Ex II (2) G and D, PTB 12 ATEX 3006, SIL 1 (IEC 61508), PL c (ISO 13849) Application as a protection device against inadmissible heating up at electrical equipment in areas with explosive gases (zones 1 and 2) and in areas with combustible dust (21 and 22), e.g. for direct monitoring of explosion proof motors Ex e and Ex d Short-circuit monitoring of sensor circuit Relay 2 change-over contacts, autoreset, closed current mode display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MS220KA, T222451 or equal</p>	Documents
MS220VA	T222415	<p>PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 ATEX-approval acc. to RL2014/34/EU, Ex II (2) G and D, PTB 12 ATEX 3006, SIL 1 (IEC 61508), PL c (ISO 13849) Application as a protection device against inadmissible heating up at electrical equipment in areas with explosive gases (zones 1 and 2) and in areas with combustible dust (21 and 22), e.g. for direct monitoring of explosion proof motors Ex e and Ex d Short-circuit monitoring of sensor circuit Relay 1 change-over contact, autoreset, closed current mode display of operating status with LEDs Width 35 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 220-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MS220VA, T222415 or equal</p>	Documents
MSF220K	T221717	<p>PTC-Resistor-Relay (Thermistor Relay) for the protection of transformers for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 2 PTC-circuits (alarm and trip) monitoring of sensors for short-circuit and break activateable Relay for trip in operating current mode, no tripping signal when switching on supply Test-button (delayed) Relays 1 change-over contact, 1 normally open contact display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MSF220K, T221717 or equal</p>	Documents
MSF220K	T221718	<p>PTC-Resistor-Relay (Thermistor Relay) for the protection of transformers for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 2 PTC-circuits (alarm and trip) monitoring of sensors for short-circuit and break activateable Relay for trip in operating current mode, no tripping signal when switching on supply Test-button (delayed) Relays 1 change-over contact, 1 normally open contact display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MSF220K, T221718 or equal</p>	Documents


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MSF220SE	T221696	PTC-Resistor-Relay (Thermistor Relay) for the protection of transformers for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 2 PTC-circuits (alarm and trip) Test-button Relays 2 change-over contacts timing relay integrated, no tripping signal when switching on supply display of operating status with LEDs plug-in housing, 42 mm wide, snap-on mounting on DIN-rail or with screws Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, MSF220SE, T221696 or equal	Documents
MSF220SE	T221697	PTC-Resistor-Relay (Thermistor Relay) for the protection of transformers for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 2 PTC-circuits (alarm and trip) Test-button Relays 2 change-over contacts timing relay integrated, no tripping signal when switching on supply display of operating status with LEDs plug-in housing, 42 mm wide, snap-on mounting on DIN-rail or with screws Supply voltage AC/DC 90-240 V Manufacturer ZIEHL industrie-elektronik, MSF220SE, T221699 or equal	Documents
MSF220V	T221738	PTC-Resistor-Relay (Thermistor Relay) for the protection of transformers for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 3 PTC-circuits (operation fan, alarm and trip) intelligent control of fan Test-button Relays 2 change-over contacts, 1 normally open contact Relay for trip in operating current mode, no tripping signal when switching on supply display of operating status with LEDs housing width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 220-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MSF220V, T221738 or equal	Documents
MSF220VL	T221674	PTC-Resistor-Relay (Thermistor Relay) for the protection of transformers with integrated monitoring of temperature of core for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 4 PTC-circuits (operation fan, alarm trip winding and trip core) intelligent control of fan Test-button Relays 4 change-over contacts Relay for trip in operating current mode, no tripping signal when switching on supply display of operating status with LEDs housing width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MSF220VL, T221674 or equal	Documents


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MSF220VU	T221737	PTC-Resistor-Relay (Thermistor Relay) for the protection of transformers for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 3 PTC-circuits (operation fan, alarm and trip) intelligent control of fan Test-button Relays 2 change-over contacts, 1 normally open contact Relay for trip in operating current mode, no tripping signal when switching on supply display of operating status with LEDs housing width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MSF220VU, T221737 or equal	Documents
MSR220K	T221775	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 Relay 1 change-over contact, closed current mode electronic reclosing lock (disconnectable) built-in button for reset and input for external reset display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 220-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MSR220K, T221775 or equal	Documents
MSR220K	T221771	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 Relay 1 change-over contact, closed current mode electronic reclosing lock (disconnectable) built-in button for reset and input for external reset display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MSR220K, T221771 or equal	Documents
MSR220K2	T221945	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit), 2 channels for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 Relay 2 x 1 change-over contact, closed current mode electronic reclosing lock (disconnectable) built-in button for reset and input for external reset display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 230 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MSR220K2, T221945 or equal	Documents
MSR220K2	T221943	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit), 2 channels for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 Relay 2 x 1 change-over contact, closed current mode electronic reclosing lock (disconnectable) built-in button for reset and input for external reset display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MSR220K2, T221943 or equal	Documents


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Type	Order-number	Texts for tenders, tender specification	Datasheet
MSR220K6	T221958	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit), 6 channels for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 Relay 1 change-over contact, closed current mode electronic reclosing lock (disconnectable), built-in button for reset and input for external reset display of operating status with LEDs, 6 LED for display of overheated sensor Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, MSR220K6, T221958 or equal	Documents
MSR220KA	T222475	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 ATEX-approval acc. to RL2014/34/EU, Ex II (2) G and D, PTB 12 ATEX 3006, SIL 1 (IEC 61508), PL c (ISO 13849) Application as a protection device against inadmissible heating up at electrical equipment in areas with explosive gases (zones 1 and 2) and in areas with combustible dust (21 and 22), e.g. for direct monitoring of explosion proof motors Ex e and Ex d Short-circuit monitoring of sensor circuit Relay 2 change-over contacts, closed current mode electronic reclosing lock (disconnectable) built-in button for reset and input for external reset display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 220-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MSR220KA, T222475 or equal	Documents
MSR220KA	T222471	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 ATEX-approval acc. to RL2014/34/EU, Ex II (2) G and D, PTB 12 ATEX 3006, SIL 1 (IEC 61508), PL c (ISO 13849) Application as a protection device against inadmissible heating up at electrical equipment in areas with explosive gases (zones 1 and 2) and in areas with combustible dust (21 and 22), e.g. for direct monitoring of explosion proof motors Ex e and Ex d Short-circuit monitoring of sensor circuit Relay 2 change-over contacts, closed current mode electronic reclosing lock (disconnectable) built-in button for reset and input for external reset display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MSR220KA, T222471 or equal	Documents
MSR220KA	T222473	PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 ATEX-approval acc. to RL2014/34/EU, Ex II (2) G and D, PTB 12 ATEX 3006, SIL 1 (IEC 61508), PL c (ISO 13849) Application as a protection device against inadmissible heating up at electrical equipment in areas with explosive gases (zones 1 and 2) and in areas with combustible dust (21 and 22), e.g. for direct monitoring of explosion proof motors Ex e and Ex d Short-circuit monitoring of sensor circuit Relay 2 change-over contacts, closed current mode electronic reclosing lock (disconnectable) built-in button for reset and input for external reset display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 110-120 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MSR220KA, T222473 or equal	Documents


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Type	Order-number	Texts for tenders, tender specification	Datasheet
MSR220KA	T222476	<p>PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 ATEX-approval acc. to RL2014/34/EU, Ex II (2) G and D, PTB 12 ATEX 3006, SIL 1 (IEC 61508), PL c (ISO 13849)</p> <p>Application as a protection device against inadmissible heating up at electrical equipment in areas with explosive gases (zones 1 and 2) and in areas with combustible dust (21 and 22), e.g. for direct monitoring of explosion proof motors Ex e and Ex d</p> <p>Short-circuit monitoring of sensor circuit</p> <p>Relay 2 change-over contacts, closed current mode</p> <p>electronic reclosing lock (disconnectable)</p> <p>built-in button for reset and input for external reset</p> <p>display of operating status with LEDs</p> <p>Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option)</p> <p>Supply voltage AC 380-415 V</p> <p>UL-recognized component cURus</p> <p>Manufacturer ZIEHL industrie-elektronik, MSR220KA, T222477 or equal</p>	Documents
MSR220VA	T222435	<p>PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 ATEX-approval acc. to RL2014/34/EU, Ex II (2) G and D, PTB 12 ATEX 3006, SIL 1 (IEC 61508), PL c (ISO 13849)</p> <p>Application as a protection device against inadmissible heating up at electrical equipment in areas with explosive gases (zones 1 and 2) and in areas with combustible dust (21 and 22), e.g. for direct monitoring of explosion proof motors Ex e and Ex d</p> <p>Short-circuit monitoring of sensor circuit</p> <p>Relay 1 change-over contact, closed current mode</p> <p>electronic reclosing lock (disconnectable)</p> <p>built-in button for reset and input for external reset</p> <p>display of operating status with LEDs</p> <p>Width 35 mm, snap-on mounting on DIN-rail or with screws (option)</p> <p>Supply voltage AC 220-240 V</p> <p>UL-recognized component cURus</p> <p>Manufacturer ZIEHL industrie-elektronik, MSR220VA, T222435 or equal</p>	Documents
MSR220VA	T222431	<p>PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit) for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 ATEX-approval acc. to RL2014/34/EU, Ex II (2) G and D, PTB 12 ATEX 3006, SIL 1 (IEC 61508), PL c (ISO 13849)</p> <p>Application as a protection device against inadmissible heating up at electrical equipment in areas with explosive gases (zones 1 and 2) and in areas with combustible dust (21 and 22), e.g. for direct monitoring of explosion proof motors Ex e and Ex d</p> <p>Short-circuit monitoring of sensor circuit</p> <p>Relay 1 change-over contact, closed current mode</p> <p>electronic reclosing lock (disconnectable)</p> <p>built-in button for reset and input for external reset</p> <p>display of operating status with LEDs</p> <p>Width 35 mm, snap-on mounting on DIN-rail or with screws (option)</p> <p>Supply voltage AC/DC 24 V</p> <p>UL-recognized component cURus</p> <p>Manufacturer ZIEHL industrie-elektronik, MSR220VA, T222431 or equal</p>	Documents
MSR820V	T221709	<p>PTC-Resistor-Relay (Thermistor Relay; TMP tripping unit), 8 channels for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082</p> <p>Monitoring of sensors for short circuit can be activated</p> <p>Relay 2 change-over contacts, function of relays individually programmable</p> <p>electronic reclosing lock (disconnectable), power fail safe can be activated</p> <p>built-in button for reset and input for external reset</p> <p>display of operating status with LEDs, 8 LED for display of overheated sensor</p> <p>Width 70 mm, snap-on mounting on DIN-rail or with screws (option)</p> <p>Supply voltage AC/DC 24-240 V</p> <p>Manufacturer ZIEHL industrie-elektronik, MSR820V, T221709 or equal</p>	Documents


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Type	Order-number	Texts for tenders, tender specification	Datasheet
MU1000K	T236002.1	Measuring Transducer for Pt 100 (RTD) and Standard Signals DC 0-10 V, 0/2-20 mA, insulation-amplifier measuring inputs DC 0/2-10 V, DC 0/4-20 mA, Pt 100 (RTD), 3-wire -200...+800 °C pre programmed measuring ranges individually programmable zeros and fullscales analog outputs DC 0/2-10 V, 0/4-20 mA, insulated from inputs supply-voltage for external measuring transducer 4-20 mA display of operating status with LEDs, buttons for programming width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MU1000K, T236002.1 or equal	Documents
MU1001K	T236006.1	Measuring Transducer for DC voltage, insulation-amplifier measuring inputs DC ± 300 mV preset 0...60/150/300 mV, $\pm 60/150/300$ mV) DC ± 10 V, DC 300 V preset 0...20/50/100/200/300 V) more individually programmable zeros and fullscales analog outputs DC 0/2-10 V, 0/4-20 mA, insulated from inputs supply-voltage for external measuring transducer 4-20 mA display of operating status with LEDs, buttons for programming width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MU1001K, T236006 or equal	Documents
MU100U	T236010	Measuring Transducer and insulation-amplifier for Standard Signals measuring inputs DC 0/2-10 V, DC 0/4-20 mA, offset adjustable analog outputs DC 0/2-10 V, 0/4-20 mA, insulated from inputs supply-voltage for external measuring transducer 4-20 mA width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MU100U, T236010 or equal	Documents
MU100W	T236041	Measuring Transducer for Potentiometer measuring input for potentiometers 0...500 Ohm to 0...10 kOhm adjustment of zero and fullscale by pressing a button analog output DC 0-10 V, 0/4-20 mA display of operating status with LEDs, buttons for adjusting width 35 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MU100W, T236041 or equal	Documents
MU2000K	T236053	Measuring Transducer for AC and DC, current and voltage measuring input voltage AC/DC 600 V (preset 0...30/150/300/600, 80-120 V) measuring input current AC/DC 5 A (preset 0...1/5 A) more individually programmable zeros and fullscales analog outputs DC 0/2-10 V, 0/4-20 mA, insulated from inputs display of operating status with LEDs, buttons for programming width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, MU2000K, T236052 or equal	Documents


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Type	Order-number	Texts for tenders, tender specification	Datasheet
MUM16	T236035	Measuring Point Change-over Switch, 16 channels 16 channels (0-10 V, 0/4-20 mA, Pt100 RTD) with common ground separate terminal for signal and ground for every input 8 double channels with separated ground (also for Pt 100 3-wire and thermocouples) selection of channels with 4 bits parallel DC 24 V, switching + or - enable input for using multiple MUM16 in parallel LED for selected channel automatic mode with adjustable clock time 0,5...10 s width 140 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, MUM16, T226035 or equal	Documents
MUM8	T236030	Measuring Point Change-over Switch, 8 channels 8 channels (0-10 V, 0/4-20 mA, Pt100 RTD) with common ground 4 double channels with separated ground (also for Pt 100 3-wire and thermocouples) selection of channels with 3 bits parallel DC 24 V, switching + or - LED for selected channel automatic mode with adjustable clock time 0,5...10 s width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 230 / DC 24 V Manufacturer ZIEHL industrie-elektronik, MUM8, T236030 or equal	Documents
NS1	V223202	Level Monitor for conductive liquids protection from overflow or running dry sensitivity adjustable 25...250 kOhm switching delay adjustable 0,5...10 s relay 1 change-over contact housing IP 54, 94 x 94 x 57 mm supply voltage AC 230 V Manufacturer ZIEHL industrie-elektronik, NS1, V223202 or equal	Documents
NS20	V223440	Level Monitor for conductive liquids for 2 or 3 electrodes protection from overflow or running dry or controlling level between 2 electrodes sensitivity adjustable 5...250 kOhm switching delay adjustable 0,5...10 s relay 1 change-over contact display of operating status with LEDs width 35 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, NS20, V223440 or equal	Documents
NS20K	V223445	Level Monitor for conductive liquids for 2 or 3 electrodes protection from overflow or running dry or controlling level between 2 electrodes sensitivity adjustable 5...250 kOhm switching delay adjustable 0,5...10 s relay 1 change-over contact display of operating status with LEDs width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, NS20K, V223445 or equal	Documents
NS43	V223267	Level Monitor for conductive liquids for 2-5 electrodes protection from overflow or running dry and controlling level between 2 electrodes at the same time sensitivity adjustable 5...250 kOhm relay 1 change-over contact display of levels and operating status with LEDs width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, NS43, V223267 or equal	Documents


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Type	Order-number	Texts for tenders, tender specification	Datasheet
NS43V	V223313	Level Monitor for conductive liquids for 2-5 electrodes protection from overflow or running dry and controlling level between 2 electrodes at the same time 6 programs for monitoring of up to 4 containers at the same time sensitivity adjustable 5...250 kOhm switching delay adjustable 0,5...10 s relasy 4 change-over contacts display of levels and operating status with LEDs housing width 105 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, NS43V, V223313 or equal	Documents
NS6123-6	V223470	Filling Level Probe with integrated measuring transducer for measuring of levels in water or gasoil Measuring range 0...250 mbar (water 0...250 cm, gasoil: 0... app. 290 cm) Proportional analog output 4-20 mA Cable 6 m, PUR, black with pressure compensation capillary Supply voltage 10...30 V Manufacturer ZIEHL industrie-elektronik, NS6123-6, V223470 or equal	Documents
PS2DK	P222505	Relay for Phase asymmetry and sequence sensitivity adjustable 5...25 % switching delay adjustable 0,1...5 s Relay 2 change-over contacts display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 380-415 V Manufacturer ZIEHL industrie-elektronik, PS2DK, P222505 or equal	Documents
PSSW1	P222525	Relay for voltage, phase asymmetry and sequence 3 AC 400 V over- and undervoltage adjustable +/- 2...20 % asymmetry adjustable 5...15 % switching delay adjustable 0,1...12 s bifrequential measuring input 50/60 Hz Relay 1 change-over contact display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 230 V Manufacturer ZIEHL industrie-elektronik, PSSW1, P222525 or equal	Documents
PSSW1	P222526	Relay for voltage, phase asymmetry and sequence 3 AC 400 V over- and undervoltage adjustable +/- 2...20 % asymmetry adjustable 5...15 % switching delay adjustable 0,1...12 s bifrequential measuring input 50/60 Hz Relay 1 change-over contact display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 400 V Manufacturer ZIEHL industrie-elektronik, PSSW1, P222526 or equal	Documents
RCM1000V	S225710	Residual current monitor 2 limits alarm and trip monitoring of current for 2 x undercurrent, overcurrent or windows measuring range 0,010...9,999 A input for current transformers STWA3D, integrated minitoring of current transformer 4 digit LED display for measured value and settings limits, switching actions and function of relays programmable 2 output relay with change over contacts housing width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, RCM1000V, S225710 or equal	Documents


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Type	Order-number	Texts for tenders, tender specification	Datasheet
RS1K	Z224302	Vibrator Control for cleaning of filters inputs for current transformers STWA1 or STWA1H and contacts for start adjustable switch on delay 4 programs for continuous vibration and impulse vibration, 20/40 s automatic interrupt of vibration when suction is started Relays 2 x change-over contacts display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, RS1K, Z224302 or equal	Documents
RSP1	Z224305	Vibrator Control for cleaning of filters addition of running times of 1-3 suction motors time until switch on delay of vibration, times for vibration and break time and continuous vibration and number of intervals programmable inputs for current transformers STWA1 or STWA1H and contacts for start adjustable switch on delay input for starting manually and request of cleaning automatic interrupt of vibration when suction is started Relay 1 change-over contact coding switch for adjusting times, display of operating status with LEDs plug-in housing, 42 mm wide, snap-on mounting on DIN-rail or with screws supply voltage AC 220-240 V Manufacturer ZIEHL industrie-elektronik, RSP1, Z224305 or equal	Documents
SolarYes	S225535	Current relay for monitoring function of photovoltaic plants 8 inputs for current transformers STWA1 or STWA1H sensitivity adjustable AC 0,3...2,4 A autocalibration of inputs LEDs for inputs, alarms, state of relays and programming output relay 2 change-over contacts housing width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, SolarYes, S225535 or equal	Documents
SPI1021	S222300	NA-Box, grid- and plant protection acc. to CEI 0-21 (Italy) Certificate of compliance from Bureau Veritas Interface Protection (IP) according to DEWA Distributed Renewable Resources Generation programme (DRRG19, September 01, 2016) Voltage and frequency relay monitoring of over- and underfrequency, voltage and 10-minutes-average monitoring of vector-shift measuring ranges 15...520 V / 45...65 Hz measuring of true RMS output relay 2 x changeover contacts display of operating status with LEDs alarm counter for up to 100 alarms with value, reason and elapsed time code protection and sealing for settings housing width 105 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-270 V Manufacturer ZIEHL industrie-elektronik, SPI1021. S222300 or equal	Documents


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STR100	T224xxx	Safety Temperature-Limiter for Pt 100 (RTD) for application in increased safety level SIL 2 and PL c meets requirements of category 3 acc. to DIN EN 951-1 1 sensor, 1 alarm, 2 channel evaluation sensor connection in 2- wire analog setting of limit relays 1 change-over contact, relay for signal ready built-in button for reset and input for external reset LEDs for state of relays setting of limit can be sealed plug-in housing, 42 mm wide, snap-on mounting on DIN-rail or with screws Measuring range xxx...xxx °C (please state) Supply voltage AC 230 V or DC 24 V (please state) Manufacturer ZIEHL industrie-elektronik, STR100. T224xxx or equal	Documents
Stromsensor S1	S225694	Put on sensor for AC- and DC-currents switching point adjustable app. 5...30 A LED for current yes/no 2 transistor outputs, switching + and - for direct connection to PLC supply voltage DC 24 V sturdy sealed execution housing 102 x 16,5 x 11 mm, connection cable abb. 2 m Manufacturer ZIEHL industrie-elektronik, current sensor S1, S225694 or equal	Documents
STW1000	S225684	Current relay for DC and AC currents measuring inputs 1 A, 5 A, 10 A, directly or with current transformers input 60 mV for measuring with external shunt monitoring of under- or overcurrent monitoring range 10...100 %, hysteresis 5...50 % start-up delay 1...20 s, switching delay 0,1...10 s display of operating status with LEDs output relays 2 change over contacts housing width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, STW1000, S225684 or equal	Documents
STW1000V2	S225677	Limit Value Switch for Standard Signals measuring inputs DC 0/2-10 V, 0/4-20 mA limits adjustable 0...100 %, hysteresis 5...30 % start-up delay and switching delay adjustable 0,1...10 s output relays 1 change over contact display of operating status with LEDs housing width 35 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, STW1000V2, S225677 or equal	Documents
STW12	S225127	Current relay for detection of AC-current yes/no 12 inputs for current transformers STWA1 or STWA1H single evaluation and OR evaluation (relay 1x change over contact) 12 transistor outputs for connection to PLC operating value < 1 A, for 2 inputs adjustable 0-5...5 A 12 LEDs for active channels open PC-board, housing width 70 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage DC 20-30 V Manufacturer ZIEHL industrie-elektronik, STW12, S225127 or equal	Documents


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STW12V	S225519	Current relay for detection of AC-current yes/no automatic start of suction plants 12 inputs for current transformers STWA1 or STWA1H, contacts or current sensor S1 OR evaluation operating value 0,5...5 A (STWA1 and STWA1H only) switch off delay adjustable 1...60 s Relay 1 change-over contact housing width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, STW12V, S225519 or equal	Documents
STW161M	S225543	Control for valves in suction plants module for connection of 1 valve DC 24 V operated by STW164IP LEDs for inputs and outputs and communication lead in of cables with cable glands (included) detection of state of machine via STWA1(H) or contacts sensitivity adjustable 0,5...5 A (at STW164IP) monitoring of end position of valve setting of address 0...31 with code switch Housing 94 x 130 x 57 mm, screw mount supply voltage DC 24 V Manufacturer ZIEHL industrie-elektronik, STW161M, S225543 or equal	Documents
STW164IP	S225542	Current relay for automatic start of suction plants 16 inputs for current transformers STWA1 or STWA1H, contacts or current sensor S1 control of up to 32 valves via bus modules control of suction motor, cleaning and cellular wheel/discharge control of volume flow by opening of additional slide valves programming with browser via TCP/IP programming with joystick at device colored LCD display for operating states interface Modbus TCP switch off delays and start delays programmable analog output for control of frequency converter at motor for suction switch off delays and start delays programmable Relays 4 x change-over contacts housing width 140 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) supply voltage DC 24 V Manufacturer ZIEHL industrie-elektronik, STW164IP, S225542 or equal	Documents
STW168M	S225544	Control for 1-8 valves in suction plants module for connection of valves via isolated contacts operated by STW164IP LEDs for inputs and outputs and communication detection of state of machine via STWA1(H) or contacts sensitivity adjustable 0,5...5 A (at STW164IP) setting of address 0...31 with code switch supply voltage DC 24 V Manufacturer ZIEHL industrie-elektronik, STW168M, S225544 or equal	Documents
STW1K	S225636	Current relay for detection of AC-current yes/no automatic start of suction plants 8 inputs for current transformers STWA1 or STWA1H, OR evaluation operating value < 1 A switch off delay app. 10 s relay 1 change-over contact width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) supply voltage AC 220-240 V Manufacturer ZIEHL industrie-elektronik, STW1K, S225636 or equal	Documents


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STW1K	S225658	Current relay for detection of AC-current yes/no automatic start of suction plants 8 inputs for current transformers STWA1 or STWA1H, OR evaluation operating value < 1 A switch off delay app. 10 s relay 1 change-over contact width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) supply voltage AC/DC 24 V Manufacturer ZIEHL industrie-elektronik, STW1K, S225658 or equal	Documents
STW200	S225530	Current relay for obstacle lights measuring input 12...120 mA for LED lamps measuring input 0,1...1 A for incandescent lamps (bulbs) monitoring range 10...100 % relay for switching on reserve light in operating-current mode relay for alarm in closed-current mode cable length from relay to lamp up to 500 m display of operating status with LEDs output relays 2 change over contacts housing width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 230 V Manufacturer ZIEHL industrie-elektronik, STW200, S225530 or equal	Documents
STW20K	S225121	Current relay for detection of AC-current yes/no AND evaluation for detection of loss of current in 1-3 lines 3 inputs for current transformers STWA1 or STWA1H operating value < 1 A relay 1 change-over contact display of operating status with LEDs Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, STW20K, S225121 or equal	Documents
STW20V	S225121	Current relay for detection of AC-current yes/no AND evaluation for detection of loss of current in 1-3 lines 3 inputs for current transformers STWA1 or STWA1H operating value < 1 A enable input, reclosing lock can be selected relay 2 change-over contacts display of operating status with LEDs housing width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, STW20V, S225124 or equal	Documents
STW81V	S225516.1	Current relay for automatic start of suction plants 8 inputs for current transformers STWA1 or STWA1H, contacts or current sensor S1 single evaluation of inputs for control of slide valves (K1-8) OR evaluation for start of motor at suction (K9) operating value adjustable 0,5...5 A for all inputs (STWA1 and STWA1H only) switch off delay for suction K9 adjustable 0...60 s switch off delay slide valves K1-8 10 s, last slide valve K9 + 20 s Relays 9 x change-over contacts display of operating status with LEDs housing width 140 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 90-240 V Manufacturer ZIEHL industrie-elektronik, STW81V, S225516 or equal	Documents


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Type	Order-number	Texts for tenders, tender specification	Datasheet
STW84V	S225522	Current relay for automatic start of suction plants 8 inputs for current transformers STWA1 or STWA1H, contacts or current sensor S1 operating value adjustable 0,5...5 A for all inputs (STWA1 and STWA1H only) single evaluation of inputs for control of slide valves (K1-8) OR evaluation for start of motor at suction (K9) analog output for control of frequency converter at motor for suction output for control of cellular wheel / discharge integrated control for cleaning of filter switch off delays and start delays programmable control of volume flow by opening of additional slide valves combination of several devices possible Relays 11 x change-over contacts display of operating status with LEDs housing width 140 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, STW84V, S225522 or equal	Documents
STWA1	S225201	Current transformer for connection to relays for current detection and controls for suction plants current max. 100 A continuously, max. 300 A for 10 s > app. 2 A direct connection of LED possible connection cables 2 x 1 m housing 31,4 x 18 mm, diameter 11 mm Manufacturer ZIEHL industrie-elektronik, STWA1, S225201 or equal	Documents
STWA1AH	S225579	Electronic current transformer with analog output measuring input AC 0...15 A, analog output DC 0...20 mA no supply voltage required current max. 100 A continuously, max. 300 A for 10 s terminals pluggable housing 56,6 x 35,5 mm, diameter 11 mm snap-on mounting on DIN-rail or with screws Manufacturer ZIEHL industrie-elektronik, STWA1AH, S225579 or equal	Documents
STWA1FH	S225560	Electronic current transformer with frequency output measuring input AC 0...20 A, frequency output 0,5...20 Hz output transistor insulated, max. DC 30 V / 30 mA supply voltage DC 10...30 V, max. 22 mA current max. 200 A for 10 s terminals pluggable housing 56,6 x 35,5 mm, diameter 11 mm snap-on mounting on DIN-rail or with screws Manufacturer ZIEHL industrie-elektronik, STWA1FH, S225560 or equal	Documents
STWA1H	S225506	Current transformer for connection to relays for current detection and controls for suction plants current max. 100 A continuously, max. 300 A for 10 s > app. 2 A direct connection of LED possible built in LED terminals pluggable housing 56,6 x 35,5 mm, diameter 11 mm snap-on mounting on DIN-rail or with screws Manufacturer ZIEHL industrie-elektronik, STWA1H, S225506 or equal	Documents
STWA1LH	S225591	Electronic current transformer for switching AC 0,35 A directly detection of AC current yes/no, switching point adjustable app. AC 2...10 A solid state output AC 24-230 V, max. 0,5 A, 2 wire connection no supply voltage required current max. 40 A continuously, max. 100 A for 60 s terminals pluggable housing 56,6 x 35,5 mm, diameter 11 mm snap-on mounting on DIN-rail or with screws Manufacturer ZIEHL industrie-elektronik, STWA1LH, S225591 or equal	Documents


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STWA1S	S225195	Electronic current transformer with transistor output detection of AC current yes/no, switching point app. AC 2 A transistor output max. DC 40 V / 40 mA for direct connection to a PLC no supply voltage required current max. 100 A continuously, max. 300 A for 10 s connection cables 2 x 1 m housing 34,5 x 27 mm, diameter 11 mm Manufacturer ZIEHL industrie-elektronik, STWA1S, S225195 or equal	Documents
STWA1SEH	S225549	Electronic current transformer with transistor output detection of AC current yes/no, switching point adjustable app. AC 2...10 A transistor output max. DC 40 V / 40 mA for direct connection to a PLC no supply voltage required current max. 100 A continuously, max. 300 A for 10 s build in LED terminals pluggable housing 56,6 x 35,5 mm, diameter 11 mm snap-on mounting on DIN-rail or with screws Manufacturer ZIEHL industrie-elektronik, STWA1SEH, S225549 or equal	Documents
STWA1SH	S225550	Electronic current transformer with transistor output detection of AC current yes/no, switching point app. AC 2 A transistor output max. DC 40 V / 40 mA for direct connection to a PLC no supply voltage required current max. 100 A continuously, max. 300 A for 10 s terminals pluggable housing 56,6 x 35,5 mm, diameter 11 mm snap-on mounting on DIN-rail or with screws Manufacturer ZIEHL industrie-elektronik, STWA1SH, S225550 or equal	Documents
STWA2AH	S225580	Electronic current transformer with analog output measuring input AC 0...20/100 A, analog output DC 4...20 mA supply voltage DC 9...30 V, 2-wire connection current max. at 20/100 A: 100/300 A continuously terminals pluggable housing 56,6 x 35,5 mm, diameter 11 mm snap-on mounting on DIN-rail or with screws Manufacturer ZIEHL industrie-elektronik, STWA2AH, S225580 or equal	Documents
STWA3D125	S225728	Current transformer for use with residual current monitor diameter 125 mm rated current Kn primary/secondary 10 A / 0,0167 A frequency range 42 Hz...3 kHz screw mount horizontally or vertically possible Manufacturer ZIEHL industrie-elektronik, STWA3D125, S225728 or equal	Documents
STWA3D20	S225725	Current transformer for use with residual current monitor diameter 20 mm rated current Kn primary/secondary 10 A / 0,0167 A frequency range 42 Hz...3 kHz Clip for snap-on mount or with screws included fixation horizontally or vertically possible Manufacturer ZIEHL industrie-elektronik, STWA3D20, S225725 or equal	Documents
STWA3D35	S225726	Current transformer for use with residual current monitor diameter 35 mm rated current Kn primary/secondary 10 A / 0,0167 A frequency range 42 Hz...3 kHz Clip for snap-on mount or with screws included fixation horizontally or vertically possible Manufacturer ZIEHL industrie-elektronik, STWA3D35, S225726 or equal	Documents


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Type	Order-number	Texts for tenders, tender specification	Datasheet
STWA3D70	S225727	Current transformer for use with residual current monitor diameter 70 mm rated current Kn primary/secondary 10 A / 0,0167 A frequency range 42 Hz...3 kHz Clip for snap-on mount or with screws included fixation horizontally or vertically possible Manufacturer ZIEHL industrie-elektronik, STWA3D70, S225727 or equal	Documents
STWA4MH	S225570	Electronic current transformer with interface RS 485 measuring input AC 0...60 A, output RS 485, Modbus RTU supply voltage DC 10...30 V current max. continuously/10 s: 72 / 200 A terminals pluggable housing 56,6 x 35,5 mm, diameter 11 mm snap-on mounting on DIN-rail or with screws Manufacturer ZIEHL industrie-elektronik, STWA4MH, S225570 or equal	Documents
SW31K	S222272	Voltage relay for 3 AC without N monitoring of three-phase grids 3 AC 400 V without neutral for missing phase Relay 1 change-over contact Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 230 V Manufacturer ZIEHL industrie-elektronik, SW31V, S222272 or equal	Documents
SW31K	S222271	Voltage relay for 3 AC without N monitoring of three-phase grids 2 AC 690 V without neutral for missing phase Relay 1 change-over contact Width 22,5 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 230 V Manufacturer ZIEHL industrie-elektronik, SW31V, S222271 or equal	Documents
SW31V	S222281	Voltage Relay for 3-phase current measuring voltage = supply voltage = 3 AC 400 V with N or AC 230 V switching point fixed 80 % output relay 2 change-over contacts display of operating status with LEDs Width 35 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC 220-240 V Manufacturer ZIEHL industrie-elektronik, SW32V, S222281 or equal	Documents
SW32V	S222276	Voltage relay for DC, AC and 3 AC with/without N measuring ranges DC 10...600 V, AC 15...480 V, 3AC 26...830 V preset programs including settings according to bdew standard measuring of true RMS digital display for measured values and programming under- and/or overvoltage with individual parameters independant for each relay monitoring of asymmetry and phase sequence selectable output relay 2 x changeover contacts display of operating status with LEDs code protection for settings housing width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-270 V Manufacturer ZIEHL industrie-elektronik, SW32V, S222276 or equal	Documents
TMU100V	T236090	Measuring Transducer for Pt 100 (RTD) input Pt 100 (RTD), 3-wire, measuring range -200...+850 °C adjustment of zero and fullscale by pressing a button analog output DC 0-10 V, 0/4-20 mA display of operating status with LEDs, buttons for adjusting width 35 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, TMU100V, T236090 or equal	Documents


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Type	Order-number	Texts for tenders, tender specification	Datasheet
TMU104V	T236061	Measuring Point Multiplier measuring input Pt 100 (RTD), Pt 1000, KTY 83/84 in 2- or 3-wire measuring input thermocouple B, E, J, K, L, N, R, S or T measuring range -199...+850 °C 4 insulated outputs Pt 100 (RTD) (resistance signal) interface RS 485, Modbus RTU width 105 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, TMU104V, T236061 or equal	Documents
TMU300	T236076	Measuring Transducer for Motor Protection inputs for 1-3 sensors Pt 100 (RTD) measuring range 0...200 °C, output signal DC 4-20 mA automatic selection of warmest sensor rated ambient temperature range -20...+85 °C supply voltage vis 4-20 mA loop (2 wire) housing 60 x 55 x 32 mm, attachmant with 2 screws M4 Manufacturer ZIEHL industrie-elektronik, TMU300, T236076 or equal	Documents
TR111V	T224107	Temperature-Relay for Pt 100 (RTD) 1 sensor, 1 alarm, 3 measuring ranges -10...200 °C sensor connection in 3 wire analog setting of limits adjustable hysteresis and switching delay relays 1 change-over contact display of operating status with LEDs Width 35 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, TR111V, T224107 or equal	Documents
TR111V	T224108	Temperature-Relay for Pt 100 (RTD) 1 sensor, 1 alarm, 3 measuring ranges 0...400 °C sensor connection in 3 wire analog setting of limits adjustable hysteresis and switching delay relays 1 change-over contact display of operating status with LEDs Width 35 mm, snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, TR111V, T224108 or equal	Documents
TR1200	T224095	Temperature-Relay for Pt 100 (RTD) 12 sensors, measuring range -199...+850 °C sensor connection in 2- or 3- wire digital display for measured values relay for error sensors interface RS 485, protocols ZIEHL and modbus RTU code protection for settings housing width 140 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, TR1200, T224095 or equal	Documents


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Type	Order-number	Texts for tenders, tender specification	Datasheet
TR1200IP	T224078	Temperature-Relay for Pt 100 (RTD) 12 sensors, measuring range -199...+850 °C sensor connection in 2- or 3- wire digital display for measured values relay for error sensors ethernet interface protocols ZIEHL and modbus RTU IEC 61850 (GOOSE) code protection for settings housing width 140 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, TR1200IP, T224078 or equal	Documents
TR122D	T224127	Temperature-Relay for Pt 100 (RTD) 1 sensor, 2 alarms, measuring range -199...+850 °C mesasuring of resistance 0...850 Ohm sensor connection in 2- or 3- wire digital display for measured values and settings adjustable hysteresis and switching delays EasyLimit for setting of limits, code protection for settings relays 2 change-over contacts plug-in housing, 42 mm wide, snap-on mounting on DIN-rail or with screws Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, TR111D, T224127 or equal	Documents
TR122DA	T224126	Temperature-Relay for Pt 100 (RTD) 1 sensor, 2 alarms, measuring range -199...+850 °C mesasuring of resistance 0...850 Ohm sensor connection in 2- or 3- wire digital display for measured values and settings adjustable hysteresis and switching delays EasyLimit for setting of limits, code protection for settings relays 2 change-over contacts programmable analog output 0/4-20 mA plug-in housing, 42 mm wide, snap-on mounting on DIN-rail or with screws Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, TR111DA, T224126 or equal	Documents
TR210	T224071	Temperature-Relay for Pt 100 (RTD), KTY and thermocouples Limit-relay for standard signals DC 0-10 V, 0/4-20 mA 1 or 2 sensors, 2 alarms, measuring range -270...+1820 °C sensor connection in 2- or 3- wire 2 measuring inputs 0-10 V, 0/4-20 mA, display scaleable digital display for measured values and settings adjustable hysteresis and switching delays monitoring of difference in temperature EasyLimit for setting of limits, code protection for settings relays 2 change-over contacts LEDs for state of relays programmable analog output 0-10 V, 0/4-20 mA housing width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, TR210, T224071 or equal	Documents

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Type	Order-number	Texts for tenders, tender specification	Datasheet
TR250	T224190	Temperature-Relay for Pt 100 (RTD), KTY and PTC Thermistors 1 to 3 sensors, 3 alarms, measuring range -199...+850 °C sensor connection in 2- or 3- wire digital display for measured values and settings LEDs for sensors and alarms adjustable hysteresis and switching delays preset programs for protection of motors and transformers (with cyclic tests of fans) monitoring of difference in temperature relays 3 change-over contacts code protection for settings counter for alarms with time stamp housing width 70 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, TR250, T224190 or equal	Documents
TR400	T224380	Temperature-Relay for Pt 100 (RTD) 1 to 4 sensors, 4 alarms, measuring range -199...+800 °C sensor connection in 2- or 3- wire digital display for measured values and settings adjustable hysteresis and switching delays LEDs for sensors and alarms 4 relays with change-over contacts, extra relay for error sensors 2 programmable analog outputs code protection for settings housing width 140 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, TR400, T224380 or equal	Documents
TR440	T224184	Temperature-Relay for Pt 100 (RTD) for the protection of dry transformers 4 sensors, 4 alarms, measuring range -199...+850 °C sensor connection in 2- or 3- wire digital display for measured values and settings adjustable hysteresis and switching delays LEDs for sensors, alarms and state of relays 4 relays with change-over contacts 4 preset programs for monitoring transformers with/without fan, with/without sensor in core and cyclic test of fan code protection for settings panel mount housing 96 x 96 mm (cutout 92 x 92 mm), depth 85 mm Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, TR4400, T224184 or equal	Documents
TR440	T224185	Temperature-Relay for Pt 100 (RTD) for the protection of dry transformers 4 sensors, 4 alarms, measuring range -199...+850 °C sensor connection in 2- or 3- wire digital display for measured values and settings adjustable hysteresis and switching delays LEDs for sensors, alarms and state of relays 4 relays with change-over contacts 4 preset programs for monitoring transformers with/without fan, with/without sensor in core and cyclic test of fan interface RS 485, protocol modbus RTU code protection for settings panel mount housing 96 x 96 mm (cutout 92 x 92 mm), depth 85 mm Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, TR4400, T224185 or equal	Documents

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Type	Order-number	Texts for tenders, tender specification	Datasheet
TR600	T224360	Temperature-Relay for Pt 100 (RTD) 1 to 6 sensors, 6 alarms, measuring range -199...+800 °C sensor connection in 2- or 3- wire digital display for measured values and settings adjustable hysteresis and switching delays LEDs for sensors and alarms 6 relays with change-over contacts, extra relay for error sensors 2 programmable analog outputs code protection for settings housing width 140 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, TR600, T224360 or equal	Documents
TR600	T224361	Temperature-Relay for Pt 100 (RTD) 1 to 6 sensors, 6 alarms, measuring range -199...+800 °C sensor connection in 2- or 3- wire digital display for measured values and settings adjustable hysteresis and switching delays LEDs for sensors and alarms 6 relays with change-over contacts, extra relay for error sensors interface RS 485, protocols ZIEHL and modbus RTU code protection for settings housing width 140 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, TR600, T224361 or equal	Documents
TR640IP	T224390	Temperature-Relay for Pt 100, Pt 1000, PTC-Thermistors, with Ethernet (IP) 6 sensor, 4 alarms, measuring range -199...+800°C sensor connection in 2- or 3-wire free sensor assignment (also several times) sensor- and self-monitoring (adjustable alarm) difference temperature monitoring 2 of x alarm (at least 2 sensors for alarm) ROCOT for monitoring the slope / velocity of temperature-rises fan-control with adjustable test-function colored LCD display for measured values and settings 4 relays with change-over contacts ethernet (IP) interface with integrated webserver and modbus TCP Monitoring and analysis of operating times in temperature ranges (data logger, temperature monitoring, trafo monitoring) user control with multi-level authorization housing width 105 mm (6 units), mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-270 V Manufacturer ZIEHL industrie-elektronik, TR640IP, T224390 or equal	Documents

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Type	Order-number	Texts for tenders, tender specification	Datasheet
TR660IP	T224370	<p>Temperature-Relay for Pt 100, Pt 1000, PTC-Thermistors, with Ethernet (IP) 6 sensor, 7 alarms, measuring range -199...+800°C, 4 analog outputs (2x voltage, 2x current) sensor connection in 2- or 3-wire free sensor assignment (also several times) sensor- and self-monitoring (adjustable alarm) difference temperature monitoring 2 of x alarm (at least 2 sensors for alarm) ROCOT for monitoring the slope / velocity of temperature-rises fan-control with adjustable test-function colored LCD display for measured values and settings 7 relays with change-over contacts 4 independent analog outputs as measuring-transducer, free scalable ethernet (IP) interface with integrated webserver and modbus TCP Monitoring and analysis of operating times in temperature ranges (data logger, temperature monitoring, trafo monitoring) user control with multi-level authorization housing width 140 mm (8 units), mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-270 V Manufacturer ZIEHL industrie-elektronik, TR660IP, T224370 or equal</p>	Documents
TR660IP	T224371	<p>Temperature-Relay for Pt 100, Pt 1000, PTC-Thermistors, with Ethernet (IP) and RS485 6 sensor, 7 alarms, measuring range -199...+800°C, 4 analog outputs (2x voltage, 2x current) sensor connection in 2- or 3-wire free sensor assignment (also several times) sensor- and self-monitoring (adjustable alarm) difference temperature monitoring 2 of x alarm (at least 2 sensors for alarm) ROCOT for monitoring the slope / velocity of temperature-rises fan-control with adjustable test-function colored LCD display for measured values and settings 7 relays with change-over contacts RS485 interface with modbus RTU (read only) ethernet (IP) interface with integrated webserver and modbus TCP Monitoring and analysis of operating times in temperature ranges (data logger, temperature monitoring, trafo monitoring) user control with multi-level authorization housing width 140 mm (8 units), mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-270 V Manufacturer ZIEHL industrie-elektronik, TR660IP, T224371 or equal</p>	Documents
TR800Web	T224164	<p>Web-IO Universal Relay with 6 Inputs 8 inputs for Pt 100 (RTD), Pt 1000, KTY and thermocouples, resistance, 0-10 V and 0/4-20 mA operation with webbrowser via internet/intranet logging of data, SNMP, AJAX output relays 4 changeover contacts for up to 32 alarms, extra relay for error ethernet-connection, modbus TCP interface RS 485, protocols ZIEHL and Modbus RTU multi state access authorization housing width 140 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V UL-recognized component cURus Manufacturer ZIEHL industrie-elektronik, TR800Web, T224164 or equal</p>	Documents

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TS1000	T221660	<p>PTC-Resistor-Relay (Thermistor Relay) for the protection of transformers with direct connection of fans for PTC-thermistors 60...180 °C, acc. to DIN 44081/44082 3 PTC-circuits (operation fan, alarm and trip) intelligent control of fan, automatic test of fan every 1...30 days can be activated Test-button, self calibration monitoring of current of fans Relays 2 change-over contacts, 6 normally open contact (fans), Relay for reporting error of fan Relay for trip in operating current mode, no tripping signal when switching on supply display of operating status with LEDs housing width 140 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, TS1000, T221660 or equal</p>	Documents
UFR1001E	S222296	<p>NA-Box, grid- and plant protection acc. to VDE-AR-N 4105:2011-06 and 4105:2018-11, VDE-AR-N 4110/4120:2018-11, bdeu-directive and DIN V VDE 0126-1-1 certificates acc. to ÖVE/ÖNORM E 8001-4-712:2009-12, DIN V VDE V 0126-1-1/A1 VFR2013/VFR2014 Certificate of compliance G59/3:2013, G83/2:2012 Voltage and frequency relay monitoring of over- and underfrequency, voltage and 10-minutes-average monitoring of vector-shift ROCOF, monitoring of rate of change of frequency df/dt one-fault-proof with monitoring of function of connected switches passive detection of insular grid measuring ranges 15...520 V / 45...65 Hz measuring of true RMS response time adjustable 0,05...130,0 s, switch back delay 0...999 s 4 digit digital display for measured values and programming preset programs for different applications limits and hysteresis adjustable, individuatable for every alarm min/max storage for measured values test-button and simulation with measuring of switching times alarm counter for up to 100 alarms with value, reason and elapsed time output relay 2 x changeover contacts transistor outputs for reporting of alarms to superior control display of operating status with LEDs code protection and sealing for settings housing width 105 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-270 V Manufacturer ZIEHL industrie-elektronik, UFR1001E, S222296 or equal</p>	Documents
UFR1002IP	S222301	<p>NA-Box, grid- and plant protection acc. to VDE-AR-N 4105:2011-06 and 4105:2018-11, VDE-AR-N 4110/4120:2018-11 and more standards Voltage and frequency relay IP Interface and LCD-Display Under/over voltage 15-520V (with ZIEHL VG1200 coupling device up to 1,200 V) Under/over frequency 45-65 Hz Voltage quality (10-minute average) Vector shift 2-65° ROCOF, rate of change of frequency df/dt 0.100...5.000 Hz/s Zero voltage U0 (ANSI 59v0) passive anti islanding protection code protection and sealing for settings Simple commissioning and programming thanks to preset basic programs and transmission via IP interface housing width 105 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-270 V Manufacturer ZIEHL industrie-elektronik, UFR1002IP, S222301 or equal</p>	Documents

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VG1200	S222312	Coupling Device for measuring of voltages up to 1200 V with NA-Box UFR1002IP Measuring range up to 1200 V Display of the correct voltage on the UFR1002IP (scalable) No supply voltage required Housing V6, 105 mm wide Manufacturer ZIEHL industrie-elektronik, VG1200, S222312 or equal	Documents
WD100V	Z224319	Watchdog Time-Relay monitoring square wave voltage 1...10.000 ms from a control or a IPC relay releases at missing slope relay 1 change-over contact display of operating status with LEDs width 35 mm, mounting height 55 mm snap-on mounting on DIN-rail or with screws (option) Supply voltage AC/DC 24-240 V Manufacturer ZIEHL industrie-elektronik, WD100V, Z224319 or equal	Documents