

Automation Pneumatic Electromechanics



INDUSTRIAL SENSORS

When it comes to industrial sensors and their use across various sectors, TRU Components range of innovative products offers a lot of choice. This includes high-quality precision light barriers, inductive proximity switches and state-of-the-art radio controls that ensure data transmission safety and make remote operation easy.



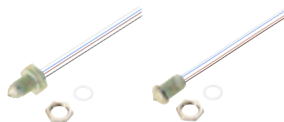
Foto: Adobe Stock/Westend61

Photo sensors and light barriers



Product ID	2354303-2N	2354304-2N	2354305-2N	2354306-2N	2361153-2N	2361154-2N
Product type	Photo sensor		Reflex light barrier		Light barrier	
Operating voltage range	12 - 24 V		12 - 24 V		12 - 24 V	
Outputs	NPN		NPN		NPN	
Transmission type	LED Infrared		LED Infrared		LED Infrared	
Connector type	M8 (cable 2 m)	cable 2 m	M8 (cable 2 m)	cable 2 m	M8 (cable 2 m)	cable 2 m
Effective detection range	50 cm		300 cm		1000 cm	
IP rating	IP64		IP64		IP64	

Liquid level gauges



Product ID	2632827-2N	2632828-2N
Operating voltage range	10 - 24 VDC	
Outputs	PNP	
Size	M12	
Connector type	cable (4-wire)	
Installation	outside	inside
Material	Polysulfone	
IP rating	IP67	

Reflectors for reflex light barriers



Product ID	2348266-2N	2348267-2N	2348268-2N	2348269-2N
Dimensions	85 x 55 mm	65 x 40 mm	Ø82 mm	62 x 51 mm
Suitable for	reflex light barriers			
Colour	white			
Material	plastic			

Inductive proximity switches



Product ID	2348263-2N	2348257-2N	2348262-2N	2348264-2N	2348258-2N	2348261-2N	2348259-2N	2348265-2N	2348260-2N
Operating voltage range	6 - 36 VDC	6 - 36 VDC	6 - 36 VDC	6 - 36 VDC	6 - 36 VDC	6 - 36 VDC	6 - 36 VDC	6 - 36 VDC	6 - 36 VDC
Outputs	PNP	PNP	PNP	PNP	PNP	PNP	PNP	PNP	PNP
Size	M5	M8	M8	M8	M12	M12	M12	M12	M18
Connector type	cable (2 m)	M8 (3-pin)	M8 (3-pin)	Kabel (2m)	Kabel (2 m)	M12 (4-pin)	M12 (4-pin)	Kabel (2 m)	M12 (4-pin)
Material (outer casing)	brass	brass	brass	brass	brass	brass	brass	brass	brass
Distance (max.)	1 mm	2 mm	1.5 mm	1.5 mm	4 mm	4 mm	4 mm	4 mm	8 mm
IP rating	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67



Industrial radio controls



Product ID	2832827-2N	2832829-2N	2832830-2N	2832831-2N
Version	6x2-channel 12 - 24 V	6x2-channel 110 - 460 V	4-channel 10 - 30 V	4-channel 36 - 480 V
Key data transmitter	Frequency range: 433.88 – 433.95 MHz		Frequency range: 433.88 - 433,95 MHz	
	Transmitter HF power: <10 mW		Transmitter HF power: <10 mW	
	Radio control signal coverage: 100 m		Radio control signal coverage: 100 m	
	Voltage supply: 1.5 V x 2 (DC 3 V) LR6		Voltage supply: 1,5 V x 2 (DC 3 V) LR6	
	modulation: GFSK		modulation: GFSK	
Key data receiver	Frequency synthesizer: PLL Antenna impedance: 50 Ω		Frequency synthesizer: PLL Antenna impedance: 50 Ω	
	Response time: <100 ms		Response time: <100 ms	
	Stop response time: <100 ms		Stop response time: <100 ms	
	Frequency range: 433.88 – 433.95 MHz	Frequency range: 433.88 – 433.95 MHz	Frequency range: 433.88 – 433.95 MHz	Frequency range: 433.88 - 433.95 MHz
	Sensitivity: -112 dBm	Sensitivity: -112 dBm	Sensitivity: -112 dBm	Sensitivity: -112 dBm
Key data receiver	RC signal coverage: 100 m	RC signal coverage: 100 m	RC signal coverage: 100 m	RC signal coverage: 100 m
	Voltage supply: 12 - 24 V AC/DC	Voltage supply: 110 - 460 V AC/DC	Voltage supply: 10 - 30 V AC/DC	Voltage supply: 36 - 480 V AC/DC
	Modulation: GFSK Frequency synthesizer: PLL	Modulation: GFSK Frequency synthesizer: PLL	Modulation: GFSK Frequency synthesizer: PLL	Modulation: GFSK Frequency synthesizer: PLL
	Antenna impedance: 50 Ω	Antenna impedance: 50 Ω	Antenna impedance: 50 Ω	Antenna impedance: 50 Ω
	Response time: 50-100 ms	Response time: 50-100 ms	Response time: 50-100 ms	Response time: 50-100 ms
IP rating	Load capacity: 5 A (250 V AC)	Load capacity: 5 A (250 V AC)	Load capacity: 5 A (250 V AC)	Load capacity: 5 A (250 V AC)
	IP65	IP65	IP65	IP65



Feedthrough terminals 2-pin (blue or grey)

- Push-in connector
- Material: Nylon PA66, tin-plated brass contact
- Flammability rating: V0
- Installation: DIN NS 35 rail
- Standard: IEC 60947-7-1



Product ID	2898084-2N	2898085-2N	2898086-2N	2898087-2N	2898088-2N	2898089-2N	2898090-2N	2898091-2N
Type	TC-JPT2.5 Grey	TC-JPT2.5 Blue	TC-JPT4 Grey	TC-JPT4 Blue	TC-JPT6 Grey	TC-JPT6 Blue	TC-JPT10 Grey	TC-JPT10 Blue
Colour	Grey	Blue	Grey	Blue	Grey	Blue	Grey	Blue
Nominal voltage	800 V	800 V	800 V	800 V	1000 V	1000 V	1000 V	1000 V
Nominal current	31 A	31 A	41 A	41 A	52 A	52 A	70 A	70 A
Cross section (fixed)	0.2 - 4 mm ²	0.2 - 4 mm ²	0.2 - 6 mm ²	0.2 - 6 mm ²	0.5 - 10 mm ²	0.5 - 10 mm ²	0.5 - 16 mm ²	0.5 - 16 mm ²
Cross section (flexible)	0.2 - 2.5 mm ²	0.2 - 2.5 mm ²	0.2 - 4 mm ²	0.2 - 4 mm ²	0.5 - 6 mm ²	0.5 - 6 mm ²	0.5 - 10 mm ²	0.5 - 10 mm ²
Size	48.5 x 35.5 x 5.2 mm	48.5 x 35.5 x 5.2 mm	56 x 36.5 x 6.2 mm	56 x 36.5 x 6.2 mm	57.7 x 43.5 x 8.2 mm	57.7 x 43.5 x 8.2 mm	67.7 x 49.5 x 10.2 mm	67.7 x 49.5 x 10.2 mm
End cover	2898096	2898096	2898097	2898097	2898098	2898098	2898099	2898099
Jumper 2-pin	2898100	2898100	2898102	2898102	2898104	2898104	2898106	2898106
Jumper 4-pin	2898101	2898101	2898103	2898103	2898105	2898105	—	—
Identifier	2898107	2898107	2898108	2898108	2898109	2898109	2898110	2898110

Feedthrough terminals 3-pin (blue or grey)

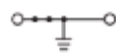
- Push-in connector
- Material: Nylon PA66, tin-plated brass contact
- Flammability rating: V0
- Installation: DIN NS 35 rail



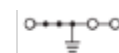
Product ID	2898112-2N	2898113-2N	2898114-2N	2898115-2N	2898116-2N	2898117-2N
Type	TC-JPT2.5-TW Grey	TC-JPT2.5-TW Blue	TC-JPT4-TW Grey	TC-JPT4-TW Blue	TC-JPT6-TW Grey	TC-JPT6-TW Blue
Colour	Grey	Blue	Grey	Blue	Grey	Blue
Nominal voltage	800 V	800 V	800 V	800 V	1000 V	1000 V
Nominal current	28 A	28 A	36 A	41 A	52 A	52 A
Cross section (fixed)	0.2-4 mm ²	0.2-4 mm ²	0.2-6 mm ²	0.2-6 mm ²	0.5-10 mm ²	0.5-10 mm ²
Cross section (flexible)	0.2-2.5 mm ²	0.2-2.5 mm ²	0.2-4 mm ²	0.2-4 mm ²	0.5-6 mm ²	0.5-6 mm ²
Size	60 x 36.5 x 5.2 mm	60 x 36.5 x 5.2 mm	66.5 x 36.5 x 6.2 mm	56 x 36.5 x 6.2 mm	75.2 x 43 x 8.2 mm	75.2 x 43 x 8.2 mm
End cover	2898121	2898121	2898122	2898122	2898123	2898123
Jumper	2898100	2898100	2898102	2898102	2898104	2898104
Jumper 4-pin	2898101	2898101	2898103	2898103	2898105	2898105
Identifier	2898107	2898107	2898108	2898108	2898109	2898109

PE feedthrough terminals 2-pin / 3-pin

- Push-in connector
- Material: Nylon PA66, tin-plated brass contact
- Flammability rating: V0
- Installation: DIN NS 35 rail
- Standard: IEC 60947-7-1



2 Pole



3 Pole

Product ID	2898092-2N	2898093-2N	2898094-2N	2898095-2N	2898118-2N	2898119-2N	2898120-2N
Type	TC-JPT2.5-PE	TC-JPT4-PE	TC-JPT6-PE	TC-JPT10-PE	TC-JPT2.5-TW-PE	TC-JPT4-TW-PE	TC-JPT6-TW-PE
Nominal voltage	800 V	800 V	1000 V	1000 V	1000 V	800 V	1000 V
Nominal current	31 A	41 A	52 A	70 A	28 A	41 A	52 A
Cross section (fixed)	0.2-4 mm ²	0.2-6 mm ²	0.5-10 mm ²	0.5-16 mm ²	0.2-4 mm ²	0.2-6 mm ²	0.5-10 mm ²
Cross section (flexible)	0.2-2.5 mm ²	0.2-4 mm ²	0.5-6 mm ²	0.5-10 mm ²	0.2-2.5 mm ²	0.2-4 mm ²	0.5-6 mm ²
Size	48.5 x 35.5 x 5.2 mm	56 x 36.5 x 6.2 mm	57.7 x 43.5 x 8.2 mm	67.7 x 49.5 x 10.2 mm	60 x 36.5 x 5.2 mm	66.5 x 36.5 x 6.2 mm	75.2 x 43 x 8.2 mm
End cover	2898096	2898097	2898098	2898099	2898121	2898122	2898123
Identifier	2898107	2898108	2898109	2898110	2898107	2898108	2898109



LED025 series cabinet lighting

- Large voltage range: 48 V – 265 V AC/DC
- Made of pure PC, transparent cover
- Super magnet keeps it in place (top or side panel)
- Energy efficient 4 W rating
- Built-in power supply unit
- LED technology makes it durable and maintenance-free
- Two fitting options: magnet or screws
- Quick-fit: attach connector, plug in the cable, done



LED 025-C series lighting has been designed for a wide range of switchboard cabinets and electrical enclosures, and for confined space in particular.

Using LED technology ensures a long service life. The products come with to fitting options, hence provide flexibility during installation. The current output allows interconnecting 10 lights. Power supply and output uses snap-in type plugs. Both, the built-in power supply unit and the quick-release plugs speed up installation.

Features:

- Power rating: 4 W (max)
- Brightness: 400 lm at 120° (1.200 lm at 360°, 95W light bulb equivalent)
- Light type: LED, emission angle 120°
- Colour temperature: daylight, 6.000 to 7.000 K
- Service life: 60.000 hrs at 20°C
- Connector type: 2-pin snap-in
- Installation: magnet or screws (M5), clip (M6), max 2Nm torque
- Weight: 0.2 kg
- Operating/storage temperature: -30 to 60°C / -40 to 85°C
- Operating/storage RH (max): 90% (no condensation)
- IP rating: IP20 / II (double insulation)

Product ID	Type	Function	Size (LxWxH)
3192523-2N	LED025-CM	On / Off switch	352 x 35 x 32 mm
3192522-2N	LED025-CM-PIR	incl. PIR motion detector	352 x 35 x 32 mm

Vent air filter

- 50.000 hrs service life
- G4 filter pad class (DIN EN 779), 94% filtration
- Operating/storage temperature -25 to 65 °C



Spare filter pads

- G4 filter pad class (DIN EN 779), 94% filtration



Product ID	Size (L x W)
3193648-2N	120 x 120 mm
3193649-2N	148 x 148 mm
3193650-2N	204 x 204 mm

Product ID	Filter pad size	Suitable for filter
3193670-2N	86 x 86 mm	3193648
3193671-2N	118 x 118 mm	3193649
3193672-2N	171x171 mm	3193650



LED signal tower

Product ID	2384822-2N	2384823-2N	2384824-2N	2867339-2N	2867340-2N	2867341-2N
Operating voltage	24 V/DC			24 V/DC		
Maximum current consumption	0.05 A			0.05 A		
Signal mode	continuous / pulse sound continuous / flashing light			continuous / flashing light		
Diameter	40 mm			40 mm		
Features	LED			LED		
IP rating	IP20			IP65		
color	red	red, green	red, amber, green	red	red, green	red, amber, green



Stand for LED signal tower

- For 24 V LED Signalsäule
- Suitable for product ID: 2384822, 2384823, 2384824, 2867339, 2867340, 2867341

Product ID
2384825-2N



USB 7 color LED signal light

- Controlled via serial commands
- USB interface
- 7-colour warning: red, amber, green, blue, white, magenta, cyan
- 180-degree adjustable angle
- Signal mode: LED continuous / flashing light
- Signal type: continuous light/ sound / flashing light
- Diameter: 50 mm

Product ID
2804760-2N



Cable length 70 cm

RGB signal tower with sounder

Product ID	2618389-2N	2618390-2N
Operating voltage	24 V/DC	
Current rating (max.)	75 mA	
Signal mode	continous light	flashing light
Diameter	50 mm	
Features	LED	
IP rating	IP65	
Signal colors	red, amber, green	

RGB FRONT PANEL WARNING LIGHTS

Learn more about the huge TRU COMPONENT product range

N.B.: More details about returning old batteries and rechargeables are available at conrad.com
For more deals and the latest information, please visit our online shop at conrad.com



Sensor type:
NTC Heating / cooling

Temperature controllers (fitted)

Product ID	2348250-2N	2348251-2N
Power supply	230 V/AC, 50/60 Hz	230 V/AC, 50/60 Hz
Power consumption	<3 W	<3 W
Relay contact capacity	heating: 10 A, 230 V/AC cooling: 10 A, 230 V/AC	heating: 10 A, 230 V/AC cooling: 10 A, 230 V/AC
Resolution	0,1 °C	1 °C
Adjustable temperature range	-50 bis +99 °C	-30 bis +999 °C
Sensor type	NTC	K-type thermocouple
Sensor cable length	2 m (incl. probe)	95 cm (incl. probe)

Temperature controllers (rail-mount)

Product ID	2898211-2N
Nominal voltage	AC/DC 24 - 240 V
Frequency rating	50 /60 Hz
Temperature range	- 15 bis 45 °C
Hysteresis	0,5 to 5 °C
Supply indicator light	Green LED
Output	1x SPDT
Nominal current	16 A / AC1
Switching voltage	250 VAC / 24 VDC
DC switch-off (min)	500 mW
Output indicator light	Red LED



PID temperature controllers

Product ID	3016144-2N	3016145-2N	3016146-2N
Power supply	100 - 240 V/AC, 50/60 Hz	100 - 240 V/AC, 50/60 Hz	100 - 240 V/AC, 50/60 Hz
Consumption	≤ 8 VA	≤ 8 VA	≤ 5 VA
Sampling interval	50 ms	50 ms	100 ms
Output	Relay	250 V/AC ~ 3 A, 30 V/DC 3 A 1a	250 V/AC ~ 3 A, 30 V/DC 3 A 1a
	SSR	11 VDC ± 2 V, ≤ 20 mA	-
	Current	DC 4 - 20 mA or DC 0 - 20 mA (parameters), resistor: ≤ 500 Ω	-
Alarm output	Relay	AL1: 250 V/AC ~ 3 A 1a	AL1/2: 250 V/AC ~ 3 A 1a
Display	7-segment (red, green, amber), LED		
Control type	heating cooling	ON/OFF, P, PI, PD, PID control	ON/OFF, P, PI, PD, PID control
Hysteresis	Thermocouple, RTD: 1 to 100 (01 to 1000) °C/°F Analogue: 1 to 100 digits		
Proportional range (P)	0,1 bis 999,9 °C/°F (0,1 bis 999,9 %)		
Reset time (I)	0 to 9.999 s		
Lead time (D)	0 to 9.999 s		
Control cycle (T)	Relay output, SSR actuator output: 0.1 to 120.0 s Selectable current and SSR actuator output 1.0 to 120.0 s		
Manual reset	0,0 bis 100,0 %		
Relay service life	mechanical	OUT1/2: ≥ 5.000.000 cycles AL1/2: ≥ 20.000.000 cycles	OUT1/2: ≥ 5.000.000 cycles
	electrical	≥ 100.000 cycles	OUT1/2: ≥ 200.000 cycles (resistor ballast: 250 VAC ~ 3 A) OUT1/2: ≥ 300.000 cycles (resistor: 250 VAC ~ 1 A)
IP rating	IP65 (front panel, IEC standards)		

NTL200 series heaters

- Quick and safe wiring via spring-loaded contacts
- Dynamic warm-up
- Wide voltage range
- Energy efficient
- Quick-release DIN mount easy to fit and detach



Product ID	Type	Operating voltage	Output	Size (LxWxH)
3192504-2N	NTL200-20W 120-250V	120-250 V AC/DC	20 W	103 x 83.5 x 34.09 mm
3192505-2N	NTL200-45W 120-250V	120-250 V AC/DC	45 W	103 x 83.5 x 34.09 mm
3192506-2N	NTL200-60W 120-250V	120-250 V AC/DC	60 W	143 x 83.5 x 34.09 mm
3192507-2N	NTL200-15W 12VDC	12 V/DC	15 W	103 x 83.5 x 34.09 mm
3192508-2N	NTL200-60W 12VDC	12 V/DC	60 W	143 x 83.5 x 34.09 mm
3192509-2N	NTL200-15W 24VDC	24 V/DC	15 W	103 x 83.5 x 34.09 mm
3192510-2N	NTL200-50W 24VDC	24 V/DC	50 W	143 x 83.5 x 34.09 mm

Features:

- Thermocouple: PTC resistor, temperature limiter
- Heater body: extrusion-pressed aluminium, anodised
- Connector: screw terminal for braid (0.5-1.5 mm² incl. solder lug), or wire (0.5-2.5 mm²)
- Casing: UL94 V-0 plastic, black
- Installation: 35-mm DIN rail clip, screw fastener
- Orientation: vertical air flow (top outlet, bottom connector)
- Operating/storage temperature: -45 to +70 °C (-49 to +158 °C)
- Operating/storage RH (max): 90% (no condensation)
- IP rating: IP20 / I (grounded)

NTL 201E-F series heaters

- Quick and safe wiring via spring-loaded contacts
- Dynamic warm-up
- Wide voltage range
- Energy efficient
- Quick-release DIN mount easy to fit and detach



Product ID	Type	Operating voltage	Output	Size (LxWxH)
3192511-2N	NTL201E-F-15 W 120-250 V	120-250 V AC/DC	15 W	109 x 69.7 x 50 mm
3192512-2N	NTL201E-F-45 W 120-250 V	120-250 V AC/DC	45 W	109 x 69.7 x 50 mm
3192513-2N	NTL201E-F-130 W 120-250 V	120-250 V AC/DC	130 W	132 x 69.7 x 50 mm

Features:

- Thermocouple: PTC resistor, temperature limiter
- Heater body: extrusion-pressed aluminium, anodised
- Connector: screw terminal for braid (0.5-1.5 mm² incl. solder lug), or wire (0.5-2.5 mm²)
- Casing: UL94 V-0 plastic, black
- Installation: 35-mm DIN rail clip, EN 60715+
- Orientation: vertical air flow (top outlet, bottom connector)
- Operating/storage temperature: -45 to +70 °C (-49 to +158 °C)
- Operating/storage RH (max): 90% (no condensation)
- IP rating: IP20 / I (grounded)

NTL-Ext4 heater

- Large convection section
- Mounting options: DIN rail/screw fastener
- Ready-to-use, incl. strain relief
- Maintenance-free



Features:

- Thermocouple: high-performance cartridge
- Heater body: aluminium section rail, silver anodised
- Connector: Si HF-JZ 3x 0.5 mm² cable, length 1 m
- PE connector: 4 mm²
- Installation: screw fastener
- Orientation: vertical air flow (bottom connector)
- Storage temperature range: -45 to +70 °C
- Operating/storage RH (max): 90 % (no condensation)
- IP rating: IP65/I (grounded)
- Ambient temperature range: -60 to +50 °C

Product ID	Type	Operating voltage	Output	Temperature class	Temperature value	Size
3192520-2N	Ext4.150.0	230 V AC	150 W	T4	135 °C	180 x 122.22 x 59.4 mm (L x B x H)

Mechanical thermostats (DIN rail mount)

- Large temperature selection range
- Small size
- Easy to install
- Contacts easily accessible
- High capacity



Features:

- Hysteresis (lag) $\pm 5^{\circ}\text{C}$
- Temperature range: 0 to $+60^{\circ}\text{C}$
- Probe type: thermostatic bimetal
- Contact type: spring-loaded
- Service life: >100.000 cycles
- Inrush current (max): 16 A AC for 10 secs
- Connector: 2-pin terminal, 0.5 Nm torque max, solid wire 2.5 mm² (AWG 14), braid 1.5 mm² (AWG 16)
- Installation: 35-mm DIN rail clip, EN 60715
- Casing: UL94 V-0 plastic, light grey
- Orientation: variable
- Operating/storage temperature range: -45 to $+80^{\circ}\text{C}$ (-49 to $+176^{\circ}\text{F}$)
- Operating/storage RH (max): 90% (no condensation)
- IP rating: IP20

Best-Nr.	Type	Function	Size (L x W x H)
3192514-2N	NT31-F NC	NC	60 x 33 x 43 mm
3192515-2N	NT32-F NO	NO	60 x 33 x 43 mm
3192516-2N	NT71-F01 NCNO	NC & NO	60 x 50 x 46 mm

Electronic thermo/hygrostats (DIN rail mount)

- Short hysteresis
- Status indicator (LED)
- Relay function
- Long service life



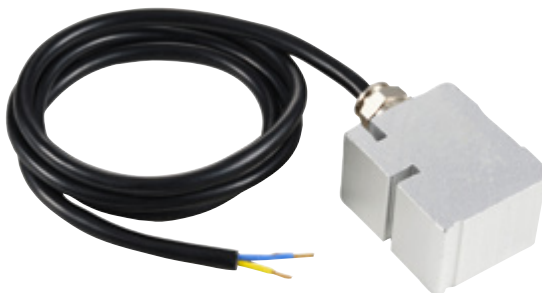
Features:

- Response time: approx. 5 secs
- Contact type: relay
- Service life: > 50.000 cycles
- Voltage rating (relay output): 240 V AC / 120 V AC, 8 (1,6) A
- Display type: LED
- Installation: 35-mm DIN rail clip, EN 60715
- Casing: UL 94V-0 plastic, light grey
- Connector: 5-pin terminal, 0.5 Nm torque (max), solid wire/braid 2.5 mm² (AWG 14)
- Installation: 35-mm DIN rail clip, EN 60715
- Casing: UL 94V-0 plastic, light grey
- IP rating: IP20

Product ID	Type	Function	Size (L x W x H)
3192517-2N	NTL76-M01	Thermostat	64.5 x 42.5 x 38 mm
3192518-2N	NTL77-M.0	Hygostat	64.5 x 42.5 x 38 mm
3192519-2N	NTL78-M01	Hygro-/Thermostat	77.5 x 60 x 37.5 mm

Thermostat NTL-ExT6

- Compact design
- Preset temperature
- High capacity



Features:

- Hysteresis (lag): 4 K (+/- 1 K tolerance)
- Probe type: thermostatic bimetal
- Contact type (1-pin): breaks at rising temperature
- Service life: $> 100\ 000$ cycles
- Max load capacity: 250 V AC, 1.3 (0.65) A
- Inrush current (max): 4 A AC for 12 secs
- Orientation: variable
- Operating/storage temperature range: -45 to $+70^{\circ}\text{C}$ (-49 to $+158^{\circ}\text{F}$)
- Operating/storage RH (max): 90% (no condensation)
- IP rating: IP65 / I (grounded)

Product ID	Type	Ambient temperature	Temperature cutoff	Size
3192521-2N	NTL-ExT6	0 to $+60^{\circ}\text{C}$	$+15^{\circ}\text{C}$ ($\pm 4\text{K}$ tolerance)	49,7 x 41,2 x 30 mm (L x W x H)

USB-to-CAN



- PC interface operates at full-speed USB 2.0, USB1.1 compatibility
- 2-way USB interface to CAN bus screw terminal
- CAN 2.0 A and CAN 2.0 B signals conform with ISO/DIS 11898
- CAN bus baud rate adjustable between 5 Kbps und 1 Mbps
- Power supply via USB bus or external power supply I (8 - 28 V/DC)
- CAN time stamp accuracy: 1 µs (max)
- Rated insulation voltage: 4500 V/DC

Product ID

2806230-2N



- USB Type-C® interface
- Push-in terminal
- PC interface operates at full-speed USB 2.0, USB1.1 compatibility
- 2-way USB interface to CAN bus screw terminal
- CAN 2.0 A and CAN 2.0 B signals conform with ISO/DIS 11898
- CAN bus baud rate adjustable between 5 Kbps und 1 Mbps
- Power supply via USB bus or external power supply (8 - 28 V/DC)
- Dataflow (receiver): 17000 fps
- CAN time stamp accuracy: 1 µs (max)
- Rated insulation voltage: 5000 V/DC

Product ID

3156515-2N

CAN-to-serial (CAN - RS232/485/422)



- Standard CAN2.0 protocol
- Supports RS/485/RS232/RS422 and CAN BUS
- Standard Modbus protocol
- Five operating modes
- 2 options for sending markers
- Supports multiple masters and slaves simultaneously
- Rated insulation voltage: 4500 V/DC

Product ID

2973411-2N



- FTDI FT232RL chip
- USB Type-C® interface
- Push-in terminal
- Supports multiple external devices
- Rated insulation voltage: 1500 V
- Supports 3.3 V und 5 V TTL full duplex communication, connection via internal jumpers
- Supports full duplex communication using RS-232 3-wire crosslink
- Supports full duplex communication using RS-422 4-wire crosslink
- Supports half duplex communication using RS-485 2-wire cross link
- DIN rail mount

Product ID

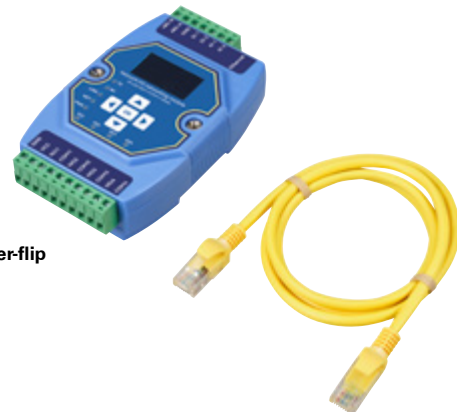
3156514-2N

Modbus I/O interface module (2 DI, 2 AI, 4 DO, RJ45, RS485)

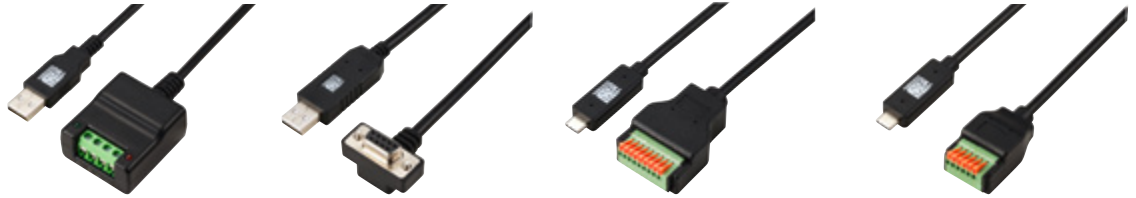
- Analog and digital multi-channel recordings: 2x DI, 2x AI, 4x DO
- Ethernet and RS485
- Modbus gateway function
- Data display in real time
- RS485 cascading
- User-specific input configuration
- Supports standard Modbus RTU and Modbus TCP
- Supports various configuration software/PLC/touchscreen
- Supports OLED for status reports and for the parameter setup via built-in keypad
- 2-way analog input (0-20 mA/4-20 mA)
- 2-way DI
- 4-way DO (type A relay); supported modes: level, impulse, sequence, reverse sequence, trigger-flip
- Supports Modbus gateway function
- RS485/RJ45 I/O acquisition control
- Supports user-specific Modbus address settings
- Supports 8 common baud rate settings
- Supports DHCP and static IP
- Supports DNS and domain name resolution
- Supports I/O gating
- Delivery includes required configuration software

Product ID

2973412-2N



USB-to-serial converter with FTDI chip



Product ID	3089723-2N	3089724-2N	3089725-2N	3089726-2N
Function	USB to RS485/422	USB to RS232 DB9	USB Type-C to RS232	USB Type-C to RS485
Baud rate	3MBaud	3MBaud	3MBaud	3MBaud
Interfaces	UART	UART	UART	RS485/422
Main connector	Screw terminal	DB9	Push-in terminal block	Push-in terminal block
Channels	1	1	1	1
USB class	FTDI drivers	FTDI drivers	FTDI drivers	FTDI drivers
Output voltage (max)	RS485 +12 V -7 V	RS232 + -12 V	RS232+ -12 V	RS485/422 +12 V -7 V
ESD	4 kV	4 kV	4 kV	4 kV
Operating temperature	-10 - 55 °C	-10 - 55 °C	-10 - 55 °C	-10 - 55 °C
USB speed	Full speed	Full speed	Full speed	Full speed
USB port	USB AM	USB AM	TYPE CM	TYPE CM
Cable length	1 m	1 m	1 m	1 m
I/O voltage	5 V	5 V	5 V	5 V
Virtual COM-PORT	yes	yes	yes	yes
FTDI Interner IC	FT232RL	FT232RL	FT232RL	FT232RL

Interface adapters



Product ID	2875799-2N	2875800-2N	2875801-2N	2875802-2N	2875804-2N
Function	RJ45 to 8-Pin terminal block	DB9 (plug) to 9-Pin terminal block	DB9 (socket) to 9-Pin screw terminal	USB3,0 to 10-Pin terminal block	USB3,0 to 10-Pin Push-In terminal block

DURABLE INDUSTRIAL SWITCHES

Learn more about
the huge
TRU COMPONENTS
product range



Semiconductor relays - DC - AC

- Includes products with a nominal current rating of 10 A, 40 A and 60 A
- Output voltage range 24 – 480 V/AC
- Control voltage 3 – 32 V/DC
- Zero-voltage switching
- Built-in, scoop-proof and detachable IP20 cover
- Dielectric breakdown 4000 VAC rms
- LED input status indicator

Product ID	3176339-2N	3176340-2N	3176341-2N
Type	TC-VSR8-10DA48Z	TC-VSR8-40DA48Z	TC-VSR8-60DA48Z
Control voltage	3 - 32 V/DC	3 - 32 V/DC	3 - 32 V/DC
Input current (max)	20 mA	20 mA	20 mA
Output voltage range	24 - 480 V/AC	24 - 480 V/AC	24 - 480 V/AC
Nominal current	10 A	40 A	60 A
Base plate material	Copper	Copper	Copper



Semiconductor relays - DC - DC

- Opto-isolated input and output circuitry
- Interface for control signal and TTL gate
- Transistor output, small forward voltage drop, fast switching
- Includes products with a nominal current rating of 25 A, 40 A and 100 A
- Output voltage range 0 – 250 V/DC
- Control voltage 3 – 32 V/DC
- Built-in, scoop-proof and detachable IP20 cover
- Dielectric breakdown 2500 V rms
- LED input status indicator

Product ID	3176342-2N	3176343-2N	3176344-2N
Type	TC-VDR8-25DD25	TC-VDR8-40DD25	TC-VDR8-100DD25
Control voltage	3 - 32 V/DC	3 - 32 V/DC	3 - 32 V/DC
Input current (max)	30 mA	30 mA	20 mA
Output voltage range	0 - 250 V/DC	0 - 250 V/DC	0 - 250 V/DC
Nominal current	25 A	40 A	100 A
Base plate material	Copper	Copper	Copper



Semiconductor relays with heatsinks - DC - AC

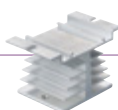
- Includes products with a nominal current rating of 15 A, 25 A, 40 A and 60 A
- Output voltage range 24 – 480 V/AC
- Control voltage 4 – 32 V/DC
- Zero-voltage switching
- Built-in, scoop-proof and detachable IP20 cover
- Built-in heatsinks
- DIN rail and panel mount
- LED input status indicator

Product ID	3176345-2N	3176346-2N	3176347-2N	3176348-2N
Type	TC-GSR8-15DA48Z	TC-GSR8-25DA48Z	TC-GSR8-40DA48Z	TC-GSR8-60DA48Z
Control voltage	4 - 32 V/DC	4 - 32 V/DC	4 - 32 V/DC	4 - 32 V/DC
Input current (max)	20 mA	20 mA	20 mA	20 mA
Output voltage range	24 - 480 V/AC	24 - 480 V/AC	24 - 480 V/AC	24 - 480 V/AC
Nominal current	15 A	25 A	40 A	60 A
Base plate material	Copper	Copper	Copper	Copper



Heatsinks

- Material: aluminium alloy
- Including DIN35 mounting bracket



Product ID	3176349-2N	3176350-2N	3176351-2N	3176352-2N
Type	TC-VSR-1	TC-VSR-6	TC-VSR-7	TC-VSR-8
Current rating (A)	10 A - 40 A	10 A - 40 A	60 A - 80 A	100 A - 120 A
Suitable for SC relays with a length of	50 mm	50 mm	50 mm	50 mm
Weight	95 g	170 g	340 g	390 g

Current monitoring relays

- Relay LED status indicator
- DIN rail mount
- Universal supply range: AC/DC 24 - 240 V
- Long service life



Product ID	2490687-2N	2490688-2N	2490689-2N	2490690-2N
Function	Over-/undercurrent	Over-/undercurrent	Over-/undercurrent (AC)	Over-/undercurrent (AC/DC)
Nominal voltage	AC/DC 24 - 240 V	AC/DC 24 - 240 V	AC/DC 24 - 240 V	AC/DC 24 - 240 V
Rated frequency	50/60 Hz, 0	50/60 Hz, 0	50/60 Hz, 0	50/60 Hz, 0
Current range	1.6 - 16 A	1.6 - 16 A	2 - 20 A	2 - 20 A
Mains frequency	AC 50 Hz	AC 50 Hz	AC 50 Hz	AC 50 Hz, DC
Current matching	Rotary microswitch	Rotary microswitch	Rotary microswitch	Rotary microswitch
Switch-off delay	adjustable: 0,1 - 10 s	adjustable: 0,1 - 10 s	0.1 s	0.1 s
Switch-on delay	adjustable: 0,1 - 10 s	adjustable: 0,1 - 10 s	-	-
Power supply indicator	Green LED	Green LED	Green LED	Green LED
Output	1 x SPDT	1 x SPDT	1 x SPDT	1 x SPDT
Nominal current	10 A / AC1	10 A / AC1	10 A / AC1	10 A / AC1
Switching voltage	250 V/AC / 24 V/DC	250 V/AC / 24 V/DC	250 V/AC / 24 V/DC	250 V/AC / 24 V/DC
Switch-off capacity	500 mW	500 mW	500 mW	500 mW
Output indicator	Red LED	Red LED	Red LED	Red LED

Contactors

- 3 pins + 1 auxiliary contact
- Voltage rating: 230 V
- DIN rail mount



Product ID	2618047-2N	2618048-2N	2618049-2N	2618050-2N
Coil voltage	230 V	230 V	230 V	230 V
No. of pins/contact type	N0	N0	N0	N0
No. of pins/contact type (auxiliary contact)	N0	N0	N0	N0
Isolation voltage rating	690 V	690 V	690 V	690 V
Nominal power (Pe), kW 400 V, AC-3	4	5,5	7,5	15
Nominal power (Pe), kW 400 V, AC-4	1,5	2,2	3	5
Nominal power g (Pe), kW 660 V, AC-3	5,5	7,5	9	18,5
Nominal power g (Pe), kW 660 V, AC-4	1,1	1,5	1,7	5,5
Mechanical life span (cycles)	12.000.000	12.000.000	12.000.000	10.000.000
Electrical life span AC-3 (cycles)	1.100.000	1.100.000	1.100.000	900.000
Electrical life span r AC-4 (cycles)	220.000	220.000	220.000	220.000
Auxiliary nominal voltage rating Ue	400 V/AC	400 V/AC	400 V/AC	400 V/AC

DURABLE INDUSTRIAL SWITCHES

Learn more about the huge TRU COMPONENTS product range



PNEUMATIC

TRU Components offers a wide range of pneumatic and compressed air technology designed for high efficiency, durability and reliability, enabling easy and quick installation and precise control of cylinders and pistons. This includes filter regulators, connectors, compressed air hoses, turbine vibrators and various valves, which are ideal for industrial applications.

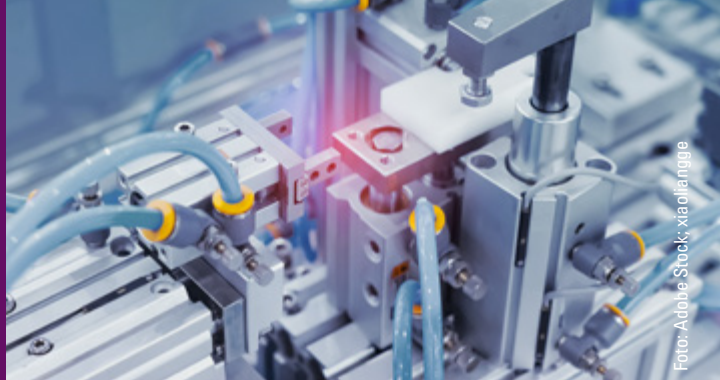


Foto: Adobe Stock; xiaoliange

Compressed air hoses

- Highly flexible, resistant against abrasion, oil and chemicals
- Ideal for outdoor use
- Sold in 100m reels



Product ID	Color	Inner diameter	Outside diameter	Material	Temperature range (min./max.)	Air pressure (max.)
2615604-2N	Blue	2.5 mm	4 mm	Polyurethane	-20 °C/+80 °C	10 bar
3208237-2N	Black	2.5 mm	4 mm	Polyurethane	-20 °C/+80 °C	10 bar
3208238-2N	Transparent	2.5 mm	4 mm	Polyurethane	-20 °C/+80 °C	10 bar
2615605-2N	Blue	4 mm	6 mm	Polyurethane	-20 °C/+80 °C	10 bar
3208239-2N	Black	4 mm	6 mm	Polyurethane	-20 °C/+80 °C	10 bar
3208240-2N	Transparent	4 mm	6 mm	Polyurethane	-20 °C/+80 °C	10 bar
2615606-2N	Blue	5 mm	8 mm	Polyurethane	-20 °C/+80 °C	10 bar
3208241-2N	Black	5 mm	8 mm	Polyurethane	-20 °C/+80 °C	10 bar
3208242-2N	Transparent	5 mm	8 mm	Polyurethane	-20 °C/+80 °C	10 bar
2615607-2N	Blue	5.5 mm	8 mm	Polyurethane	-20 °C/+80 °C	10 bar
3208243-2N	Black	5.5 mm	8 mm	Polyurethane	-20 °C/+80 °C	10 bar
3208244-2N	Transparent	5.5 mm	8 mm	Polyurethane	-20 °C/+80 °C	10 bar
2615608-2N	Blue	6.5 mm	10 mm	Polyurethane	-20 °C/+80 °C	10 bar
3208245-2N	Black	6.5 mm	10 mm	Polyurethane	-20 °C/+80 °C	10 bar
3208246-2N	Transparent	6.5 mm	10 mm	Polyurethane	-20 °C/+80 °C	10 bar
2615609-2N	Blue	8 mm	12 mm	Polyurethane	-20 °C/+80 °C	10 bar
3208247-2N	Black	8 mm	12 mm	Polyurethane	-20 °C/+80 °C	10 bar
3208248-2N	Transparent	8 mm	12 mm	Polyurethane	-20 °C/+80 °C	10 bar
2615610-2N	Blue	2 mm	4 mm	PTFE	-80 °C/+200 °C	10.2 bar
2615611-2N	Blue	4 mm	6 mm	PTFE	-80 °C/+200 °C	10.2 bar

Pneumatic connectors

- A wide selection of pneumatic quick-fit connectors with different fitting options



Product ID	Hose connector type	Hose diameter	Thread size	Pressure	Pressure (max.)	Ambient temperature (min.)	Ambient temperature (max.)
2615612-2N	Straight	4 mm	M5 x 0.8	-1 bar	10 bar	-10 °C	80 °C
2615678-2N	Straight	6 mm	G1/8"	-1 bar	10 bar	-10 °C	80 °C
2615679-2N	Straight	6 mm	G1/4"	-1 bar	10 bar	-10 °C	80 °C
2615613-2N	Straight	6 mm	M5 x 0.8	-1 bar	10 bar	-10 °C	80 °C
2615616-2N	Straight	8 mm	R1/4	-1 bar	10 bar	-10 °C	80 °C
2615680-2N	Straight	8 mm	G1/8"	-1 bar	10 bar	-10 °C	80 °C
2615681-2N	Straight	8 mm	G1/4"	-1 bar	10 bar	-10 °C	80 °C
2615652-2N	T	4 mm		-1 bar	10 bar	-10 °C	80 °C
2615653-2N	T	6 mm		-1 bar	10 bar	-10 °C	80 °C
2615654-2N	T	8 mm		-1 bar	10 bar	-10 °C	80 °C
2615664-2N	Straight	10 mm; 8 mm		-1 bar	10 bar	-10 °C	80 °C
2615662-2N	Straight	4 mm; 6 mm		-1 bar	10 bar	-10 °C	80 °C
2615663-2N	Straight	8 mm; 6 mm		-1 bar	10 bar	-10 °C	80 °C
2615640-2N	Straight	10 mm		-1 bar	10 bar	-10 °C	80 °C
2615641-2N	Straight	12 mm		-1 bar	10 bar	-10 °C	80 °C
2615637-2N	Straight	4 mm		-1 bar	10 bar	-10 °C	80 °C
2615638-2N	Straight	6 mm		-1 bar	10 bar	-10 °C	80 °C
2615639-2N	Straight	8 mm		-1 bar	10 bar	-10 °C	80 °C
2615645-2N	90-degree	10 mm		-1 bar	10 bar	-10 °C	80 °C
2615643-2N	90-degree	6 mm		-1 bar	10 bar	-10 °C	80 °C
2615644-2N	90-degree	8 mm		-1 bar	10 bar	-10 °C	80 °C
2615650-2N	Y	10 mm		-1 bar	10 bar	-10 °C	80 °C
2615648-2N	Y	6 mm		-1 bar	10 bar	-10 °C	80 °C
2615649-2N	Y	8 mm		-1 bar	10 bar	-10 °C	80 °C

N.B.: More details about returning old batteries and rechargeables are available at conrad.com
For more details and the latest information, please visit our online shop at conrad.com



Servo-controlled valves

Product ID	3062665-2N	3062666-2N	3062667-2N	2832834-2N	2832835-2N
Connector type	G3/8	G3/8	G3/4	G1/2	G1/2
Operating pressure (min)	0 bar	0 bar	0 bar	0 bar	0 bar
Operating pressure (max)	10 bar	10 bar	10 bar	10 bar	10 bar
Operating voltage	24 V/DC	230 V/AC	230 V/AC	24 V/DC	230 V/AC
Function (pneumatics)	2/2 closed monostable	2/2 closed monostable	2/2 closed monostable	2/2 closed monostable	2/2 closed monostable
Temperature (min)	-10 °C	-10 °C	-10 °C	-10 °C	-10 °C
Temperature (max)	80 °C	80 °C	80 °C	80 °C	80 °C
kV value	3.86	3.86	8.04	3.86	3.86
Seal	NBR	NBR	NBR	NBR	NBR



Plastic



Brass

Mufflers

Product ID	Type	Thread size	Material
3192576-2N	PSE-1/8	1/8"	Plastic
3192577-2N	PSE-1/4	1/4"	Plastic
3192578-2N	PSE-3/8	3/8"	Plastic
3192579-2N	PSE-1/2	1/2"	Plastic
3192580-2N	BSLM-M5	M5	Brass
3192581-2N	BSLM-1/8	1/8"	Brass
3192582-2N	BSLM-1/4	1/4"	Brass
3192583-2N	BSLM-3/8	3/8"	Brass
3192584-2N	BSLM-1/2	1/2"	Brass
3192585-2N	BSLM-3/4	3/4"	Brass
3192586-2N	BSLM-1	1"	Brass



Filter regulators

Product ID	Type	Flow rate (max.)	Input pressure (max.)	Adjustable	Thread size
3193486-2N	DFR200-02	1700L/Min	16 bar	0.5~12 bar	1/4"
3193487-2N	DFR400-04	3500L/Min	16 bar	0.5~12 bar	1/2"



Magnetic valves w/o solenoid

Product ID	Type	Thread size	Function
3193111-2N	V5110-06	1/8"	5/2 bistable
3193112-2N	V5210-06	1/8"	5/2 bistable
3193113-2N	V5210-08	1/4"	5/2 bistable
3193114-2N	V3210-06	1/8"	3/2 bistable
3193115-2N	V3210-08	1/4"	3/2 bistable



Stainless steel alloy

Ball valves (stainless steel)

Product ID	Type	Nominal diameter	Thread size	Pressure / temp (max.)
3192587-2N	2PC-DN15-316	DN15	G1/2"	64 bar / -40°C+180°C
3192588-2N	2PC-DN20-316	DN20	G3/4"	64 bar / -40°C+180°C
3192589-2N	2PC-DN25-316	DN25	G1"	64 bar / -40°C+180°C
3192590-2N	2PC-DN32-316	DN32	G1-1/4"	64 bar / -40°C+180°C
3192591-2N	2PC-DN40-316	DN40	G1-1/2"	64 bar / -40°C+180°C
3192592-2N	2PC-DN50-316	DN50	G2"	64 bar / -20°C+180°C



Material: Brass

Ball valves

Product ID	Type	Thread size	Fig..	Pressure / temp. (max.)
3192596-2N	304SM-FM1/4G	G1/4"	2	16 bar / -20°C+120°C
3192597-2N	304SM-FM1/2G	G1/2"	2	16 bar / -20°C+120°C
3192598-2N	304SM-FF1/4G	G1/4"	1	16 bar / -20°C+120°C
3192599-2N	304SM-FF1/2G	G1/2"	2	16 bar / -20°C+120°C
3192600-2N	304SM-MM1/4G	G1/4"	3	16 bar / -20°C+120°C
3192601-2N	304SM-MM1/2G	G1/2"	3	16 bar / -20°C+120°C

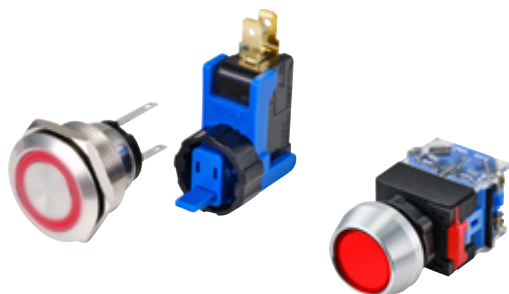


Turbine vibrators

			Vibrations per min			Forced vibration (N)			Air consumption per minute (liter)		
Product ID	Type	Inner thread	0.2MPa	0.4MPa	0.6MPa	0.2MPa	0.4MPa	0.6MPa	0.2MPa	0.4MPa	0.6MPa
3193101-2N	G-04T	G1/8"	14100	15100	16100	135	160	200	30	40	50
3193102-2N	G-06T	G1/8"	11500	12500	13500	130	165	210	30	40	50
3193103-2N	G-08T	G1/8"	35850	43000	45900	980	2100	2950	48	75	152
3193104-2N	G-10T	G1/8"	26950	34800	37600	850	1400	2450	48	75	152
3193105-2N	G-13T	G1/4"	25950	30050	39800	1450	2450	3700	125	210	280
3193106-2N	G-16T	G1/4"	16950	21800	24100	1250	2100	3150	125	210	280
3193107-2N	G-20T	G1/4"	16950	19800	23100	2180	4050	5500	188	315	465
3193108-2N	G-25T	G1/4"	11980	15600	17100	2150	3550	5600	188	315	465
3193109-2N	G-30T	G3/8"	12990	14010	16100	3400	5450	7550	335	520	755
3193110-2N	G-36T	G3/8"	7990	10100	13000	3300	5380	7180	335	520	755

DISCOVER OTHER TRU COMPONENTS PRODUCT CATEGORIES

Control devices (Ø 22 mm)



Cable entry systems and feedthroughs



Cable entry systems



Cable feedthroughs



Temper-proof switches and buttons



Temper-proof switches



Temper-proof buttons



Cable gland



Polyamide cable glands



Brass cable glands

