

CONTROL UNITS

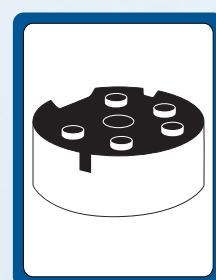


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## Code 1

Key 1

...

## Control units

MUL-D2	Control unit with LED display MUL-D2
MUL-D4	Control unit with LED display MUL-D4
MUL-E2	Control unit with LED display MUL-E2
MUL-E4	Control unit with LED display MUL-E4
TP5333A	Control unit TP5333A
TP5333D	Control unit TP5333D
TP5343A	Control unit TP5343A
TP5343B	Control unit TP5343B
TD5335A	Control unit TD5335A
TD5335D	Control unit TD5335D
TP5350AF	Control unit TP5350AF
TP5350BF	Control unit TP5350BF
TP5350AP	Control unit TP5350AP
TP5350BP	Control unit TP5350BP
ZMU	Control unit XT42Si
TMT181A	Control unit TMT181A
TMT181B	Control unit TMT181B Ex
5104BB2A	Repeater 5104BB2A
5104BB2B	Repeater 5104BB2B
5106B2A	Repeater 5106B2A
5106B2B	Repeater 5106B2B
5714D	LED display 5714D
5715D	LED display 5715D
5531B	LCD display 5531B
5531B2	LCD display in field frame 5531B2
5202B2	Contact protection relay 5202B2
5202B4	Contact protection relay 5202B4
GL1002	Leakage detector GL1002
GL1003	Leakage detector GL1003
GL1101	Leakage detector GL1101
FE	Floor electrode FE
AFE	Floor electrode AFE
72011S	Conductive level controller 72011S
72012S	Conductive level controller 72012S
72013S	Conductive level controller 72013S
72013E	Conductive level controller 72013E

## Code 1 ( only analogue display )

Key 1 ... / ... / ... / ... -	Key 2 ... / ... / ... / ... -	Key 3 ... / ... / ... / ... -
Analogue display	Indication angle	Current input
A48 Analogue display 48.0 x 48.0 mm	90 Indication angle 90°	I100 0.0 ... 100.0 µA
A72 Analogue display 72.0 x 72.0 mm	240 Indication angle 240°	I020 0.0 ... 20.0 mA
A96 Analogue display 96.0 x 96.0 mm		I420 4.0 ... 20.0 mA
A144 Analogue display 144.0 x 144.0 mm		

## Code 1 ( only analogue display )

Key 4 ... / ... / ... / ... -
Scaling
0100 0 ... 100%
0000 Scale according to customers information

## Example

<b>Code</b>	1						
<b>Key</b>	1	/	2	/	3	/	4
<b>Example</b>	A96	/	90	/	I420	/	0100

Black = not possible according to Atex / Blue = possible according to Atex Exia / Blue' = possible according to Atex Exia and Exd / Black' = possible according to Atex Exd

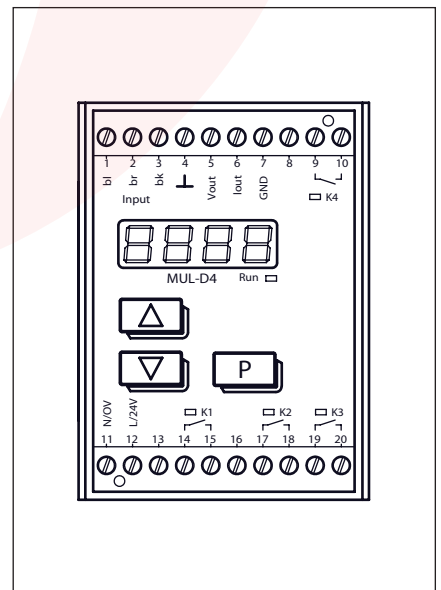
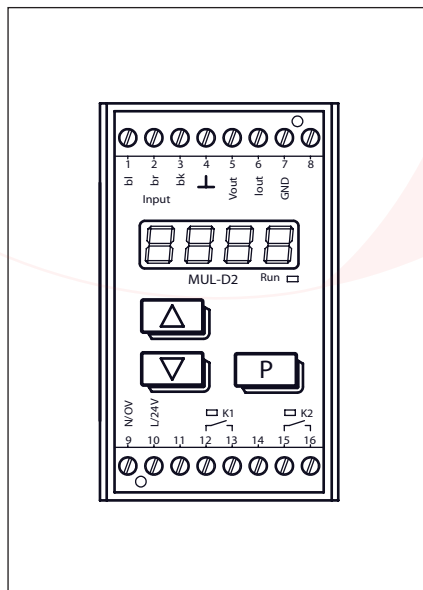
## Control Units / Control unit MULD..

### Type

### MULD2..

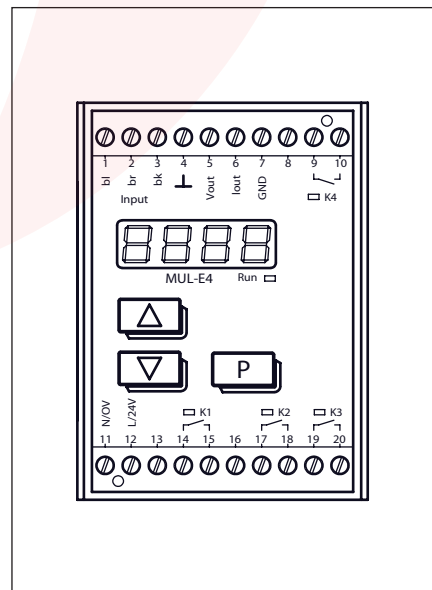
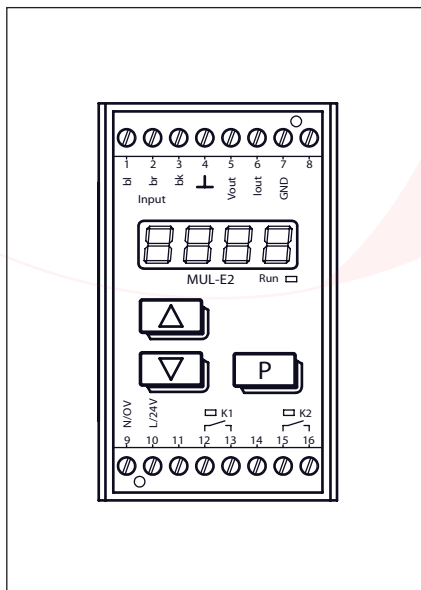
### MULD4..

Power supply:	MULD21 18 ... 36 VDC MULD22 115 VAC MULD23 230 VAC	MULD41 18 ... 36 VDC MULD42 115 VAC MULD43 230 VAC
Current input:	-	-
Current output:	0 ... 20 mA / 4 ... 20 mA	0 ... 20 mA / 4 ... 20 mA
Error alarm:	Yes ( only for 4 ... 20 mA )	Yes ( only for 4 ... 20 mA )
Input signal:	3-wire potentiometer 1 kOhm ... 100 kOhm	3-wire potentiometer 1 kOhm ... 100 kOhm
Measuring channels:	1	1
Relay outputs:	2 Relays / Normally open / Programmable 230 VAC / 2 A / 500 VA	4 Relays / Normally open / Programmable 230 VAC / 2 A / 500 VA
Dimensions:	W 45.0 x H 75.0 x D 110.0 mm	W 55.0 x H 75.0 x D 110.0 mm
Mounting dimensions:	-	-
Ambient temperature:	0°C ... 55°C	0°C ... 55°C
Atmospheric humidity:	< 95 % RH ( not condensed )	< 95 % RH ( not condensed )
Weight:	325 g	345 g
Ingress protection class ( Housing / Connections ):	IP 40 / IP 20	IP 40 / IP 20
Display:	4-digit 7-segment LED display in red Size 7.6 mm Free scaling	4-digit 7-segment LED display in red Size 7.6 mm Free scaling
EMV 2004/108/EG:	EN 61000-6-2 / EN 61000-6-3 EN 61000-4-2 EN 61000-4-3 EN 61000-4-6 EN 61000-4-13	EN 61000-6-2 / EN 61000-6-3 EN 61000-4-2 EN 61000-4-3 EN 61000-4-6 EN 61000-4-13
Programming:	Programming buttons	Programming buttons
Alignment:	Free programmable	Free programmable
Approvals / Certificates:	GL / BV	GL / BV



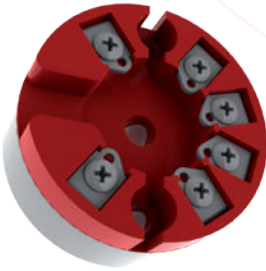
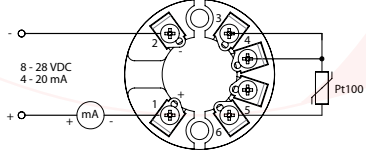
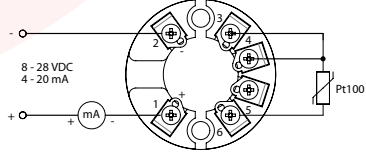
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Type	MULE2..	MULE4..
Power supply:	MULE21 18 ... 36 VDC MULE22 115 VAC MULE23 230 VAC	MULE41 18 ... 36 VDC MULE42 115 VAC MULE43 230 VAC
Current input:	-	-
Current output:	0 ... 20 mA / 4 ... 20 mA	0 ... 20 mA / 4 ... 20 mA
Error alarm:	Yes ( only for 4 ... 20 mA)	Yes ( only for 4 ... 20 mA)
Input signal:	3-wire potentiometer 1 kOhm ... 100 kOhm	3-wire potentiometer 1 kOhm ... 100 kOhm
Measuring channels:	1	1
Relay outputs / Display:	2 Relays / Normally open / Programmable 230 VAC / 2 A / 500 VA	4 Relays / Normally open / Programmable 230 VAC / 2 A / 500 VA
Dimensions:	W 45.0 x H 75.0 x D 110.0 mm	W 55.0 x H 75.0 x D 110.0 mm
Mounting dimensions:	-	-
Ambient temperature:	0°C ... 55°C	0°C ... 55°C
Atmospheric humidity:	< 95 % RH ( not condensed )	< 95 % RH ( not condensed )
Weight:	325 g	345 g
Ingress protection class ( Housing / Connections ):	IP 40 / IP 20	IP 40 / IP 20
Display:	4-digit 7-segment LED display in red Size 7.6 mm Free scaling	4-digit 7-segment LED display in red Size 7.6 mm Free scaling
EMV 2004/108/EG:	EN 61000-6-2 / EN 61000-6-3 EN 61000-4-2 EN 61000-4-3 EN 61000-4-6 EN 61000-4-13	EN 61000-6-2 / EN 61000-6-3 EN 61000-4-2 EN 61000-4-3 EN 61000-4-6 EN 61000-4-13
Programming:	Programming buttons	Programming buttons
Alignment:	Free programmable Linearisable	Free programmable Linearisable
Approvals / Certificates:	GL / BV	GL / BV



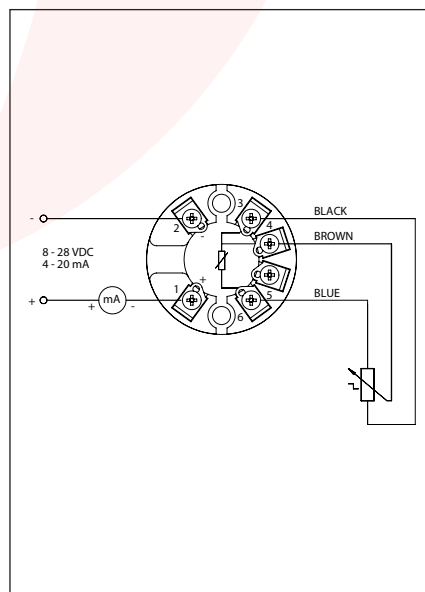
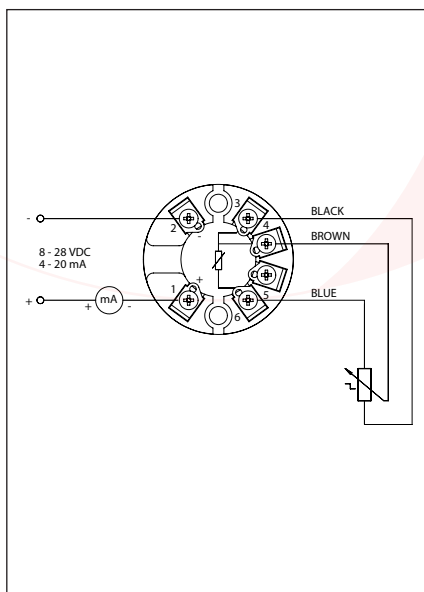
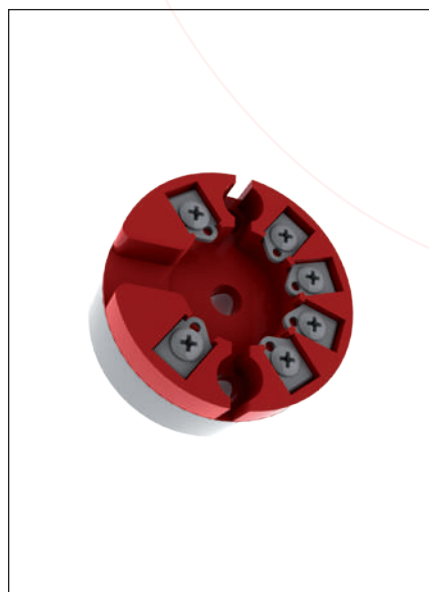
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## Control Units / Control unit TP5333..

Type	TP5333A	TP5333D
Power supply:	8.0 ... 35 VDC	8.0 ... 30 VDC
Current input:	-	-
Current output:	4 ... 20 mA	4 ... 20 mA
Error alarm:	3.5 ... 23 mA programmable	3.5 ... 23 mA programmable ( NAMUR NE 43 )
Input signal:	PT-100 ( -200°C ... 850°C ) PT-1000 ( -200°C ... 850°C )	PT-100 ( -200°C ... 850°C ) PT-1000 ( -200°C ... 850°C )
Measuring channels:	1	1
Relay outputs:	-	-
Dimensions:	ø 44.0 x 20.2 mm	ø 44.0 x 20.2 mm
Mounting dimensions:	-	-
Ambient temperature:	-40°C ... 85°C	-40°C ... 85°C
Atmospheric humidity:	< 95 % RH ( not condensed )	< 95 % RH ( not condensed )
Weight:	50 g	50 g
Ingress protection class ( Housing / Connections ):	IP 68 / IP 00	IP 68 / IP 00
Intrinsically safe data:	-	$U_i \leq 30$ VDC $I_i \leq 120$ mA $P_i \leq 0.84$ W $L_i \leq 10$ µH $C_i \leq 1$ nF
EMV 2004/108/EG: ATEX 94/9/EG:	EN 61326-1 -	EN 61326-1 EN 60079-0, -11, -26 EN 61241-0, -11
Programming:	Loop Link 5905 ( RS232 ) / 5909 ( USB )	Loop Link 5905 ( RS232 ) / 5909 ( USB )
Alignment:	Free programmable	Free programmable
Approvals / Certificates:	GOST / DNV	ATEX / GOST / DNV / CSA / FM
		

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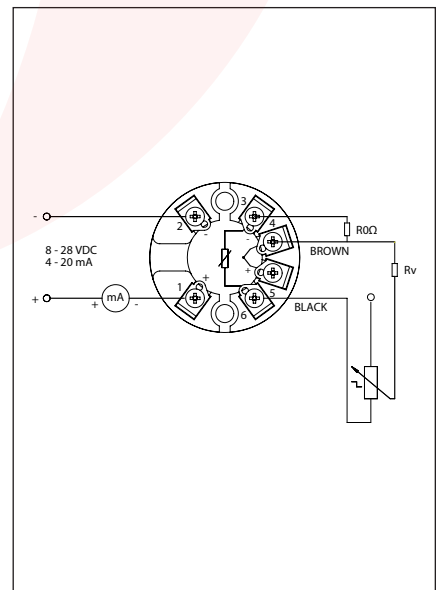
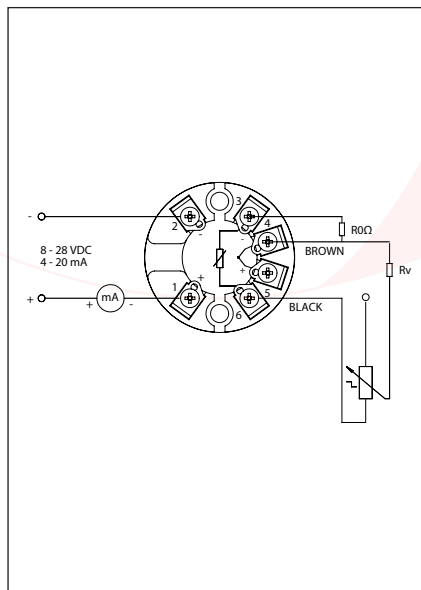
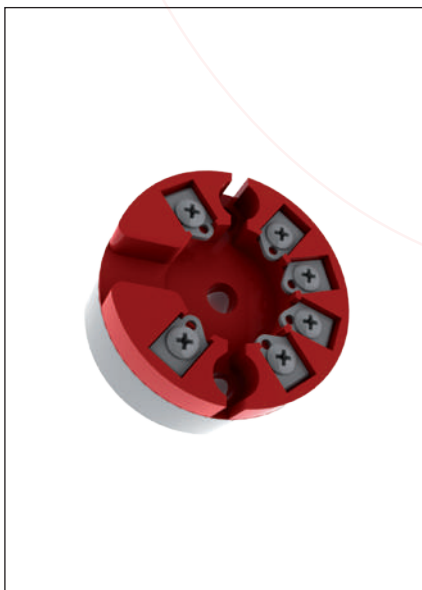
Type	TP5343A	TP5343B Ex
Power supply:	8.0 ... 35 VDC	8.0 ... 30 VDC
Current input:	-	-
Current output:	4 ... 20 mA	4 ... 20 mA
Error alarm:	3.5 ... 23 mA programmable	3.5 ... 23 mA programmable ( NAMUR NE 43 )
Input signal:	3-wire potentiometer 1 kOhm ... 100 kOhm	3-wire potentiometer 1 kOhm ... 100 kOhm
Measuring channels:	1	1
Relay outputs:	-	-
Dimensions:	ø 44.0 x 20.2 mm	ø 44.0 x 20.2 mm
Mounting dimensions:	-	-
Ambient temperature:	-40°C ... 85°C	-40°C ... 85°C
Atmospheric humidity:	< 95 % RH ( not condensed )	< 95 % RH ( not condensed )
Weight:	50 g	50 g
Ingress protection class ( Housing / Connections ):	IP 68 / IP 00	IP 68 / IP 00
Intrinsically safe data:	-	$U_i \leq 30$ VDC $I_i \leq 120$ mA $P_i \leq 0.84$ W $L_i \leq 10$ µH $C_i \leq 1$ nF
EMV 2004/108/EG: ATEX 94/9/EG:	EN 61326-1 -	EN 61326-1 EN 60079-0, -11, -26 EN 61241-0, -11
Programming:	Loop Link 5905 ( RS232 ) / 5909 ( USB )	Loop Link 5905 ( RS232 ) / 5909 ( USB )
Alignment:	Free programmable Lineariseable	Free programmable Lineariseable
Approvals / Certificates:	GOST / DNV	ATEX / GOST / DNV



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## Control Units / Control unit TD5335..

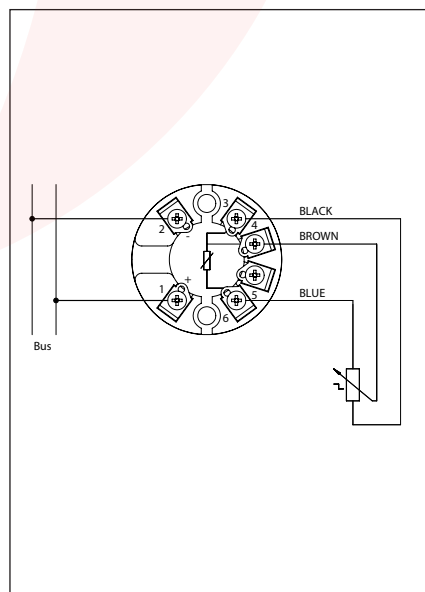
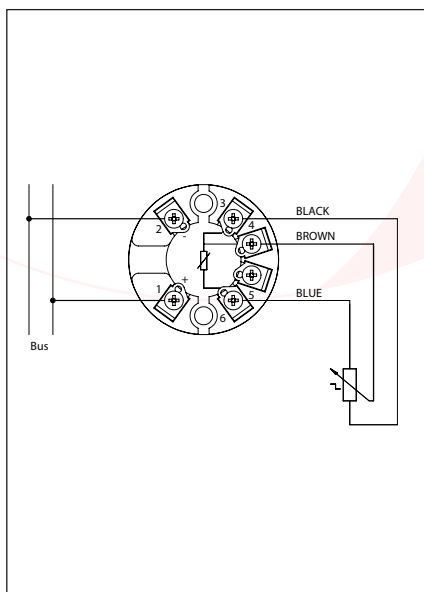
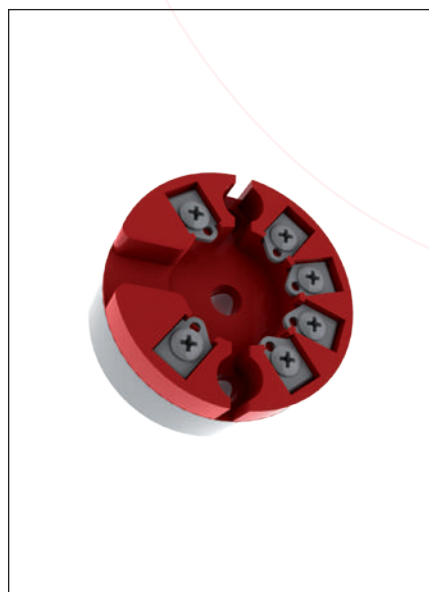
Type	TD5335A	TD5335D
Power supply:	8.0 ... 35 VDC	8.0 ... 30 VDC
HART®-Kommunikation:	Yes	Yes
Current output:	4 ... 20 mA	4 ... 20 mA
Error alarm:	3.5 ... 23 mA programmable	3.5 ... 23 mA programmable ( NAMUR NE 43 )
Input signal:	PT-100 ( -200°C ... 850°C ) PT-1000 ( -200°C ... 850°C ) Linear 0 Ohm ... 7 kOhm	PT-100 ( -200°C ... 850°C ) PT-1000 ( -200°C ... 850°C ) Linear 0 Ohm ... 7 kOhm
Measuring channels:	1	1
Relay outputs:	-	-
Dimensions:	ø 44.0 x 20.2 mm	ø 44.0 x 20.2 mm
Mounting dimensions:	-	-
Ambient temperature:	-40°C ... 85°C	-40°C ... 85°C
Atmospheric humidity:	< 95 % RH ( not condensed )	< 95 % RH ( not condensed )
Weight:	50 g	50 g
Ingress protection class ( Housing / Connections ):	IP 68 / IP 00	IP 68 / IP 00
Intrinsically safe data:	-	$U_i \leq 30$ VDC $I_i \leq 120$ mA $P_i \leq 0.84$ W $L_i \leq 10$ µH $C_i \leq 1$ nF
EMV 2004/108/EG: ATEX 94/9/EG:	EN 61326-1 -	EN 61326-1 EN 60079-0, -11, -26 EN 61241-0, -11
Programming:	Loop Link 5905 ( RS232 ) / 5909 ( USB ) Hart®Modem	Loop Link 5905 ( RS232 ) / 5909 ( USB ) Hart®Modem
Alignment:	Free programmable Lineariseable	Free programmable Lineariseable
Approvals / Certificates:	GOST / DNV / SIL2	ATEX / GOST / IECEx / DNV / SIL2 / CSA / FM



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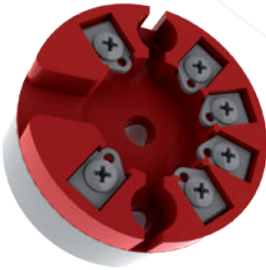
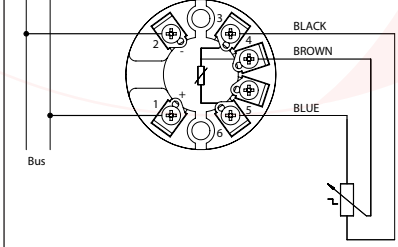
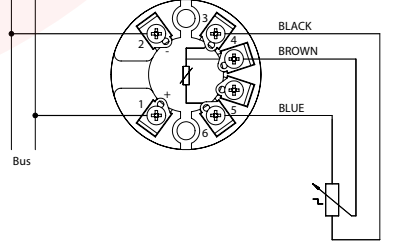


Type	TP5350AF	TP5350BF
Power supply:	9.0 ... 32 VDC	9.0 ... 30 VDC
Current input:	-	-
Signal Ausgang:	Foundation™ Fieldbus ITK4.51	Foundation™ Fieldbus ITK4.51
Error alarm:	Yes	Yes
Input signal:	PT-100 ( -200°C ... 850°C ) PT-1000 ( -200°C ... 850°C ) 3-wire potentiometer 0 Ohm ... 100 kOhm	PT-100 ( -200°C ... 850°C ) PT-1000 ( -200°C ... 850°C ) 3-wire potentiometer 0 Ohm ... 100 kOhm
Measuring channels:	1	1
Relay outputs:	-	-
Dimensions:	ø 44.0 x 20.2 mm	ø 44.0 x 20.2 mm
Mounting dimensions:	-	-
Ambient temperature:	-40°C ... 85°C	-40°C ... 85°C
Atmospheric humidity:	< 95 % RH ( not condensed )	< 95 % RH ( not condensed )
Weight:	55 g	55 g
Ingress protection class ( Housing / Connections ):	IP 68 / IP 00	IP 68 / IP 00
Intrinsically safe data:	-	U <sub>i</sub> ≤ 30 VDC I <sub>i</sub> ≤ 120 mA P <sub>i</sub> ≤ 0.84 W L <sub>i</sub> ≤ 1 µH C <sub>i</sub> ≤ 2 nF
EMV 2004/108/EG: ATEX 94/9/EG:	EN 61326-1 -	EN 61326-1 EN 60079-0, -11, -26, -27 EN 61241-0, -11
Programming:	Siemens Simatic PDM ABB Melody / Honeywell AX Metso Damatec XD	Siemens Simatic PDM ABB Melody / Honeywell AX Metso Damatec XD
Alignment:	Free programmable Lineariseable	Free programmable Lineariseable
Approvals / Certificates:	GOST / NEPSI / CSA / FM	ATEX / GOST / NEPSI / CSA / FM

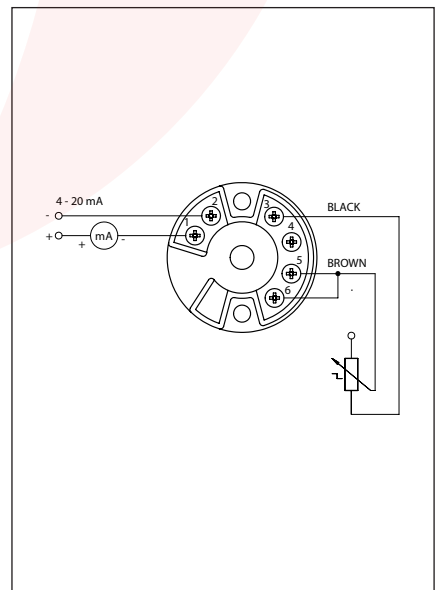
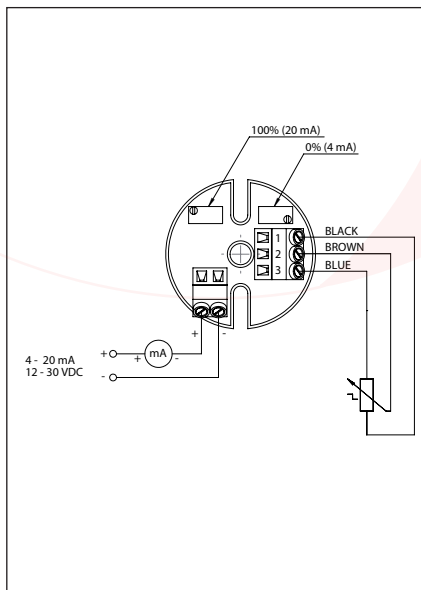
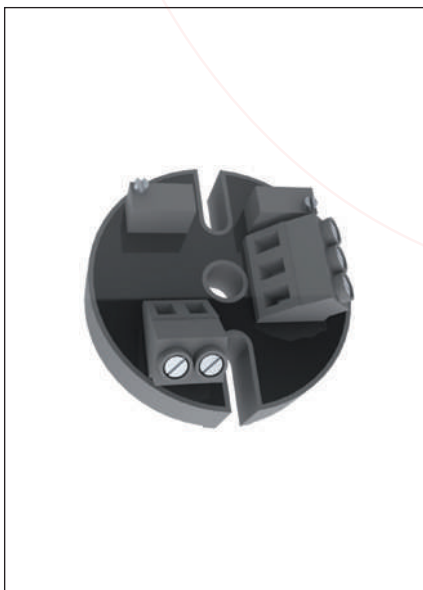


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## Control Units / Control unit TP5350..P

Type	TP5350AP	TP5350BP
Power supply:	9.0 ... 32 VDC	9.0 ... 30 VDC
Current input:	-	-
Signaloutput:	Profibus® PA	Profibus® PA
Error alarm:	Yes	Yes
Input signal:	PT-100 ( -200°C ... 850°C ) PT-1000 ( -200°C ... 850°C ) 3-wire potentiometer 0 Ohm ... 100 kOhm	PT-100 ( -200°C ... 850°C ) PT-1000 ( -200°C ... 850°C ) 3-wire potentiometer 0 Ohm ... 100 kOhm
Measuring channels:	1	1
Relay outputs:	-	-
Dimensions:	ø 44.0 x 20.2 mm	ø 44.0 x 20.2 mm
Mounting dimensions:	-	-
Ambient temperature:	-40°C ... 85°C	-40°C ... 85°C
Atmospheric humidity:	< 95 % RH ( not condensed )	< 95 % RH ( not condensed )
Weight:	55 g	55 g
Ingress protection class ( Housing / Connections ):	IP 68 / IP 00	IP 68 / IP 00
Intrinsically safe data:	-	$U_i \leq 30$ VDC $I_i \leq 120$ mA $P_i \leq 0.84$ W $L_i \leq 1$ µH $C_i \leq 2$ nF
EMV 2004/108/EG: ATEX 94/9/EG:	EN 61326-1 -	EN 61326-1 EN 60079-0, -11, -26, -27 EN 61241-0, -11
Programming:	Siemens Simatic PDM ABB Melody / Honeywell AX Metso Damatec XD	Siemens Simatic PDM ABB Melody / Honeywell AX Metso Damatec XD
Alignment:	Free programmable Lineariseable	Free programmable Lineariseable
Approvals / Certificates:	GOST / NEPSI / CSA / FM	ATEX / GOST / NEPSI / CSA / FM
		
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Type	ZMU	TMT181A / TMT181B ( Ex )
Power supply:	12 ... 30 VDC	8.0 ... 35 VDC / 8.0 ... 30 VDC ( Ex )
Current input:	-	-
Current output:	4 ... 20 mA	4 ... 20 mA
Error alarm:	3.8 ... 22 mA	≤ 3,6 mA oder ≥ 21,0 mA programmable
Input signal:	3-wire potentiometer 1kOhm ... 100kOhm	PT-100 ( -200°C ... 850°C ) PT-1000 ( -200°C ... 250°C ) Linear 0 Ohm ... 2000 Ohm
Measuring channels:	1	1
Relay outputs:	-	-
Dimensions:	ø 44.0 x 20.2 mm	ø 44.0 x 20.2 mm
Mounting dimensions:	-	-
Ambient temperature:	-20°C ... 65°C	-40°C ... 85°C
Atmospheric humidity:	< 95 % RH ( not condensed )	< 95 % RH ( not condensed )
Weight:	40 g	40 g
Ingress protection class ( Housing / Connections ):	IP 20 / IP 00	IP 66 / IP 00
Intrinsically safe data:	$U_i \leq 30$ VDC $I_i \leq 101$ mA $P_i \leq 0.758$ W $L_i = 0$ µH $C_i = 0$ nF	$U_i \leq 30$ VDC $I_i \leq 100$ mA $L_i =$ insignificant $C_i =$ insignificant
EMV 2004/108/EG: ATEX 94/9/EG:	EN 61326-1 EN 60079-0, -11 EN 61241-0, -11	EN 61010-1 EN 61326-1, -2-3 EN 60079-0, -15 EN 61241-0, -1, -11
Programming:	0% and 100% alignment	Configuration kit TMT181A-VK
Alignment:	0% ± 5% 100% - 25%	0% and 100%
Approvals / Certificates:	ATEX / GL / BV / DNV / ABS	ATEX / GOST / GL / UL / CSA / FM



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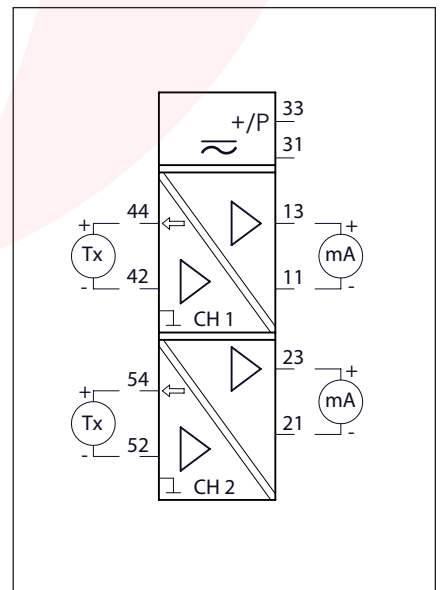
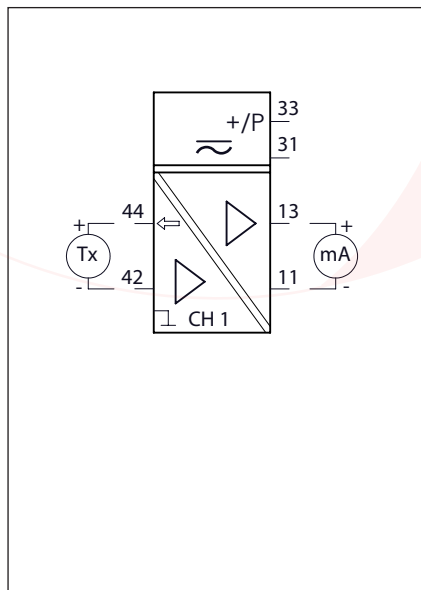
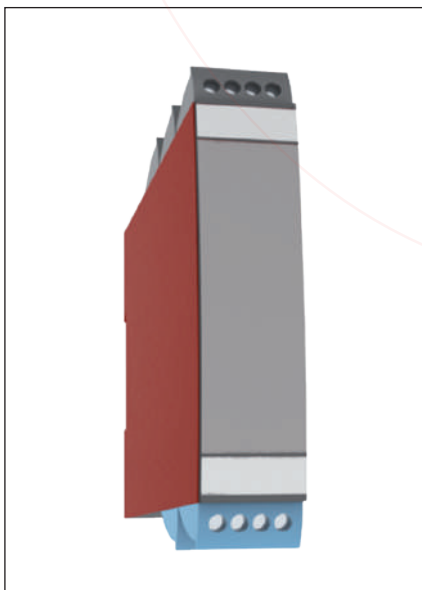
## Control Units / Repeater 5104BB2..

### Type

### 5104BB2A

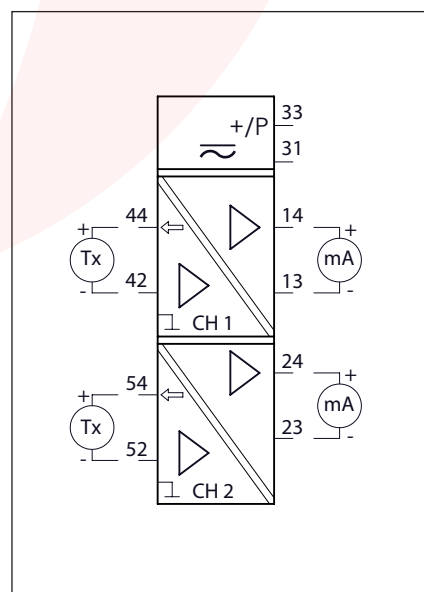
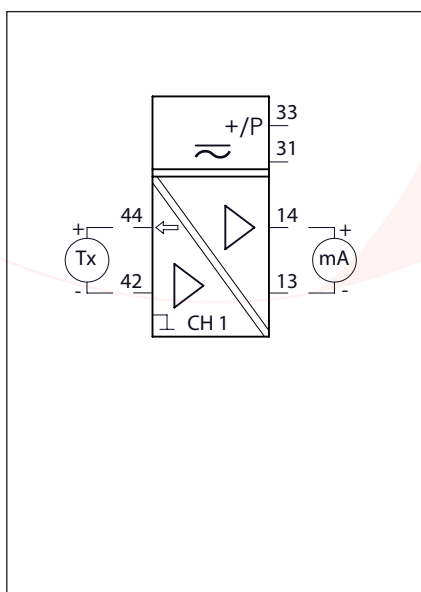
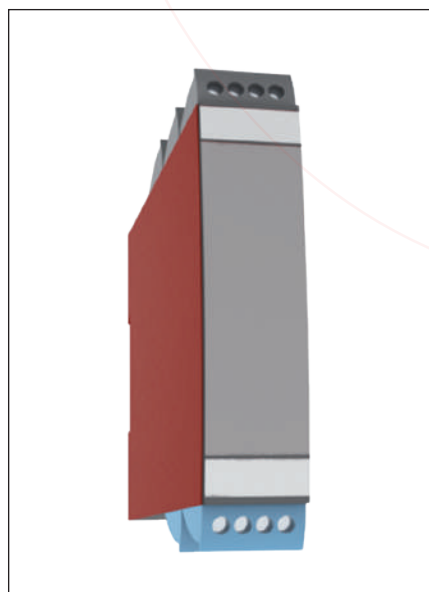
### 5104BB2B

Power supply:	22 ... 250 V AC / DC	22 ... 250 V AC / DC
Current input:	4 ... 20 mA	4 ... 20 mA
Current output:	4 ... 20 mA	4 ... 20 mA
Error alarm:	-	-
Input signal:	-	-
Measuring channels:	1	2
Relay outputs:	-	-
Dimensions:	W 23.5 x H 109.0 x D 130.0 mm	W 23.5 x H 109.0 x D 130.0 mm
Mounting dimensions:	-	-
Ambient temperature:	-20°C ... 60°C	-20°C ... 60°C
Atmospheric humidity:	< 95 % RH ( not condensed )	< 95 % RH ( not condensed )
Weight:	225 g	225 g
Ingress protection class ( Housing / Connections ):	IP 20	IP 20
Burden:	$U_m$ 250 V $U_o$ 28.0 VDC $I_o$ 93 mA $P_o$ 0.65 W $L_o$ 3 mH $C_o$ 80 nF	$U_m$ 250 V $U_o$ 28.0 VDC $I_o$ 93 mA $P_o$ 0.65 W $L_o$ 3 mH $C_o$ 80 nF
EMV 2004/108/EG: ATEX 94/9/EG:	EN 61326-1 EN 50014 EN 50020 EN 50281-1-1	EN 61326-1 EN 50014 EN 50020 EN 50281-1-1
Programming:	Loop Link 5905 ( RS232 ) / 5909 ( USB )	Loop Link 5905 ( RS232 ) / 5909 ( USB )
Alignment:	-	-
Approvals / Certificates:	ATEX / GOST / DNV / UL	ATEX / GOST / DNV / UL



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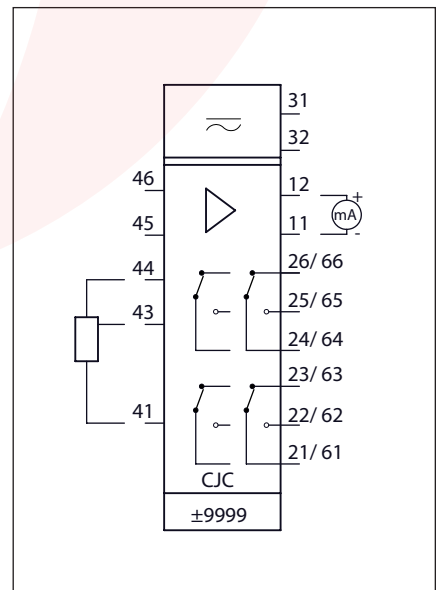
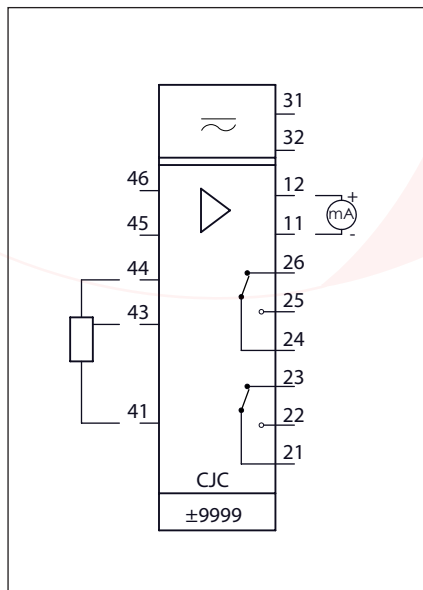
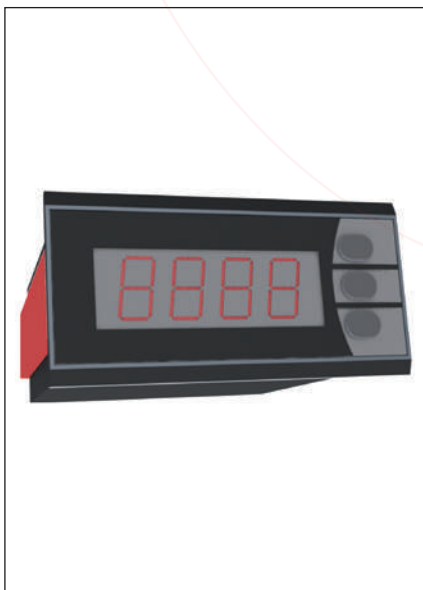
Type	5106BB2A	5106BB2B
Power supply:	22 ... 250 V AC / DC	22 ... 250 V AC / DC
Current input:	4 ... 20 mA	4 ... 20 mA
Signal Ausgang:	4 ... 20 mA	4 ... 20 mA
Error alarm:	-	-
HART®-Kommunikation:	Yes	Yes
Measuring channels:	1	2
Relay outputs:	-	-
Dimensions:	W 23.5 x H 109.0 x D 130.0 mm	W 23.5 x H 109.0 x D 130.0 mm
Mounting dimensions:	-	-
Ambient temperature:	-20°C ... 60°C	-20°C ... 60°C
Atmospheric humidity:	< 95 % RH ( not condensed )	< 95 % RH ( not condensed )
Weight:	246 g	246 g
Ingress protection class ( Housing / Connections ):	IP 20	IP 20
Burden:	U <sub>m</sub> 250 V U <sub>o</sub> 28.0 VDC I <sub>o</sub> 93 mA P <sub>o</sub> 0.65 W L <sub>o</sub> 3 mH C <sub>o</sub> 80 nF	U <sub>m</sub> 250 V U <sub>o</sub> 28.0 VDC I <sub>o</sub> 93 mA P <sub>o</sub> 0.65 W L <sub>o</sub> 3 mH C <sub>o</sub> 80 nF
EMV 2004/108/EG: ATEX 94/9/EG:	EN 61326-1 EN 50014 EN 50020 EN 50281-1-1	EN 61326-1 EN 50014 EN 50020 EN 50281-1-1
Programming:	Loop Link 5905 ( RS232 ) / 5909 ( USB ) Hart®Modem	Loop Link 5905 ( RS232 ) / 5909 ( USB ) Hart®Modem
Alignment:	-	-
Approvals / Certificates:	ATEX / GOST / UL	ATEX / GOST / UL



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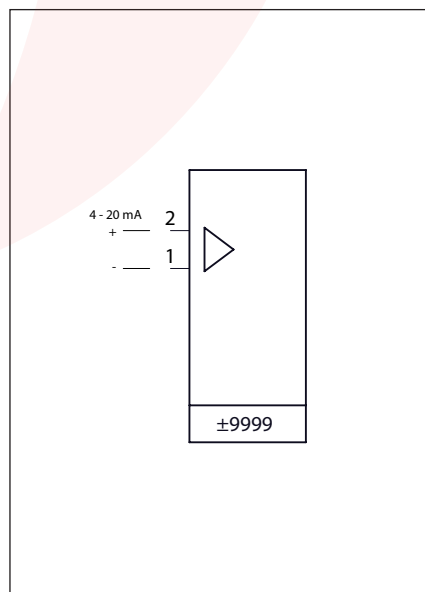
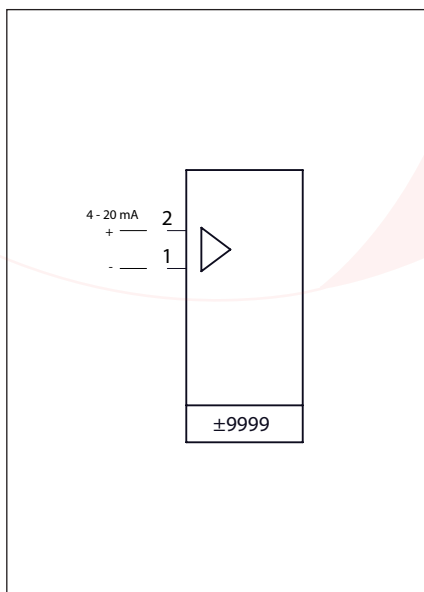
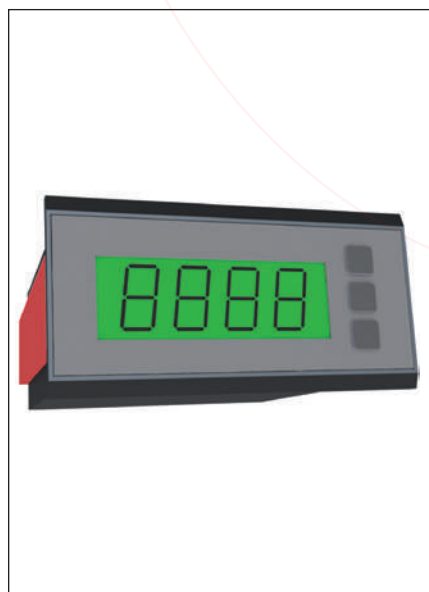
## Control Units / LED display 5714D / 5715D

Type	5714D	5715D
Power supply:	22 ... 250 V AC / DC	22 ... 250 V AC / DC
Current input:	-	-
Current output:	0 ... 20 mA / 4 ... 20 mA	0 ... 20 mA / 4 ... 20 mA
Error alarm:		
Input signal:	PT-100 ( -200°C ... 850°C ) 3-wire potentiometer 10 Ohm ... 100 kOhm	PT-100 ( -200°C ... 850°C ) 3-wire potentiometer 10 Ohm ... 100 kOhm
Measuring channels:	1	1
Relay outputs:	2 Relays / Change over 230 VAC / 2 A / 500 VA	4 Relays / Change over 230 VAC / 2 A / 500 VA
Dimensions:	W 96.0 x H 48.0 x D 120.0 mm	W 96.0 x H 48.0 x D 120.0 mm
Mounting dimensions:	W 91.5 x H 44.5 mm	W 91.5 x H 44.5 mm
Ambient temperature:	-20°C ... 60°C	-20°C ... 60°C
Atmospheric humidity:	< 95 % RH ( not condensed )	< 95 % RH ( not condensed )
Weight:	230 g	260 g
Ingress protection class ( Housing / Connections ):	IP 65 ( Front )	IP 65 ( Front )
Display:	4-digit 14-segment LED display in red Size 13.8 mm Free scaling	4-digit 14-segment LED display in red Size 13.8 mm Free scaling
EMV 2004/108/EG:	EN 61326-1	EN 61326-1
Programming:	Programming buttons	Programming buttons
Alignment:	Free programmable	Free programmable
Approvals / Certificates:	GOST / DNV / UL	GOST / DNV / UL



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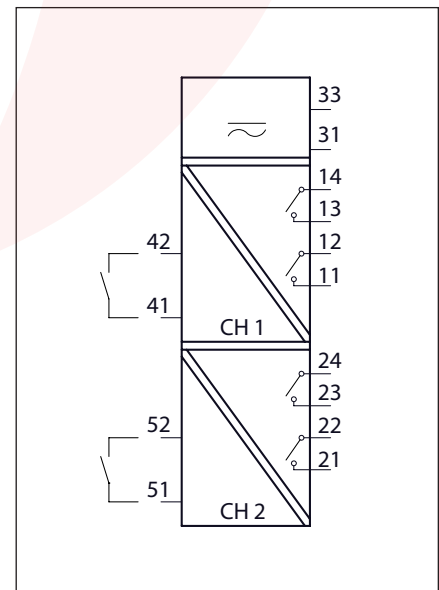
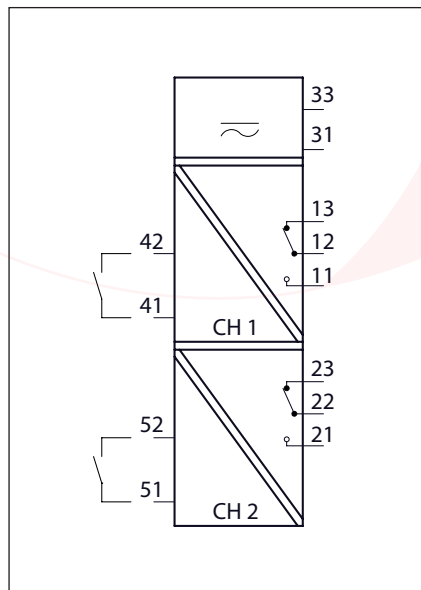
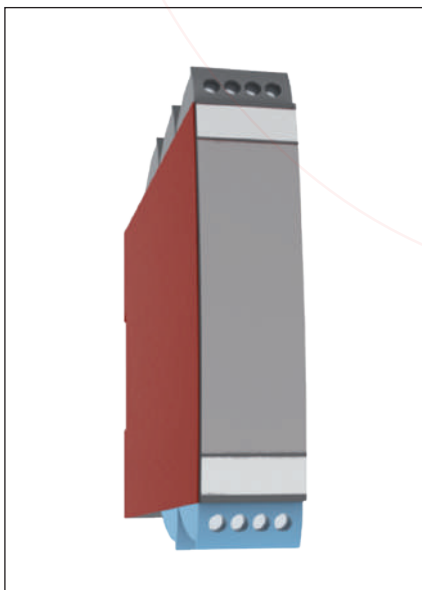
Type	5531B	5531B2 ( in field frame )
Power supply:	-	-
Current input:	-	-
Current output:	-	-
Error alarm:	-	-
Input signal:	4 ... 20 mA	4 ... 20 mA
Measuring channels:	1	1
Display:	4-digit LCD display Size 16 mm	4-digit LCD display Size 16 mm
Dimensions:	W 96.0 x H 48.0 x D 120.0 mm	W 112.0 x H 92.0 x D 143.0 mm
Mounting dimensions / Housing material quality:	W 91.5 x H 44.5 mm	Al Mg Si 0,5, DIN 1725
Ambient temperature:	-20°C ... 60°C	-20°C ... 60°C
Atmospheric humidity:	< 95 % RH ( not condensed )	< 95 % RH ( not condensed )
Weight:	150 g	900 g
Ingress protection class ( Housing / Connections ):	IP 65 ( Front )	IP 65
Intrinsically safe data:	$U_i \leq 45 \text{ VDC}$ $I_i \leq 500 \text{ mA}$ $P_i \leq 0.9 \text{ W}$ $L_i = 0 \text{ mH}$ $C_i = 0 \text{ }\mu\text{F}$	$U_i \leq 45 \text{ VDC}$ $I_i \leq 500 \text{ mA}$ $P_i \leq 0.9 \text{ W}$ $L_i = 0 \text{ mH}$ $C_i = 0 \text{ }\mu\text{F}$
EMV 2004/108/EG: ATEX 94/9/EG:	EN 61326-1 EN 50014 EN 50020 EN 60079-15 EN 61241-0, -11	EN 61326-1 EN 50014 EN 50020 EN 60079-15 EN 61241-0, -11
Programming:	Programming buttons	Programming buttons
Alignment:	-	-
Approvals / Certificates:	ATEX / GOST	ATEX



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## Control Units / Contact protection relay 5202B..

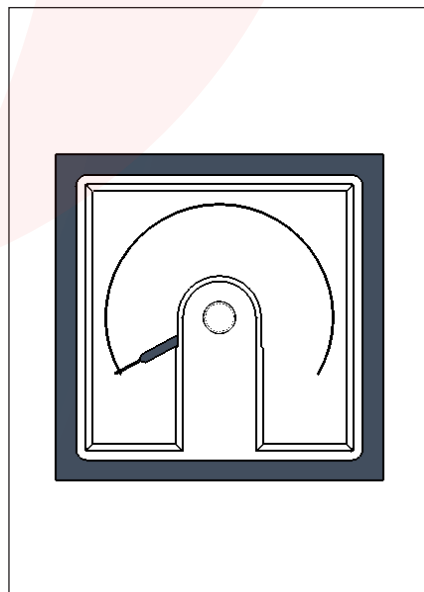
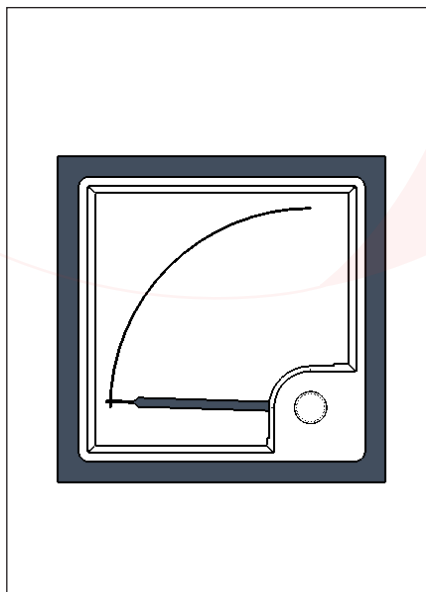
Type	5202B2	5202B4
Power supply:	22 ... 250 V AC / DC	22 ... 250 V AC / DC
Current input:	-	-
Current output:	-	-
Error alarm:	Detection of cable break over LED	Detection of cable break over LED
Input signal:	Potential-free contact / NAMUR	Potential-free contact / NAMUR
Measuring channels:	2	2
Relay outputs:	2 x 1 Relay / Change over 230 VAC / 2 A / 100 VA	2 x 2 Relays / Normally open or normally closed 230 VAC / 2 A / 100 VA
Dimensions:	W 23.5 x H 109.0 x D 130.0 mm	W 23.5 x H 109.0 x D 130.0 mm
Mounting dimensions:	-	-
Ambient temperature:	-20°C ... 60°C	-20°C ... 60°C
Atmospheric humidity:	< 95 % RH ( not condensed )	< 95 % RH ( not condensed )
Weight:	230 g	230 g
Ingress protection class ( Housing / Connections ):	IP 20	IP 20
Burden:	U <sub>m</sub> 250 V U <sub>o</sub> 10.6 VDC I <sub>o</sub> 13.8 mA P <sub>o</sub> 0.038 W L <sub>o</sub> 160 mH C <sub>o</sub> 1.9 µF	U <sub>m</sub> 250 V U <sub>o</sub> 10.6 VDC I <sub>o</sub> 13.8 mA P <sub>o</sub> 0.038 W L <sub>o</sub> 160 mH C <sub>o</sub> 1.9 µF
EMV 2004/108/EG: ATEX 94/9/EG:	EN 61326-1 EN 50014 EN 50020 EN 60079-0, -11 EN 61241-1, -11	EN 61326-1 EN 50014 EN 50020 EN 60079-0, -11 EN 61241-1, -11
Programming:	-	-
Alignment:	-	-
Approvals / Certificates:	ATEX / GOST / SIL2 / UL	ATEX / GOST / SIL2 / UL



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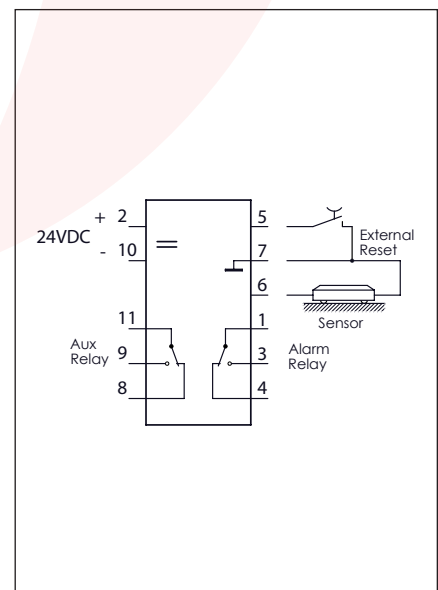
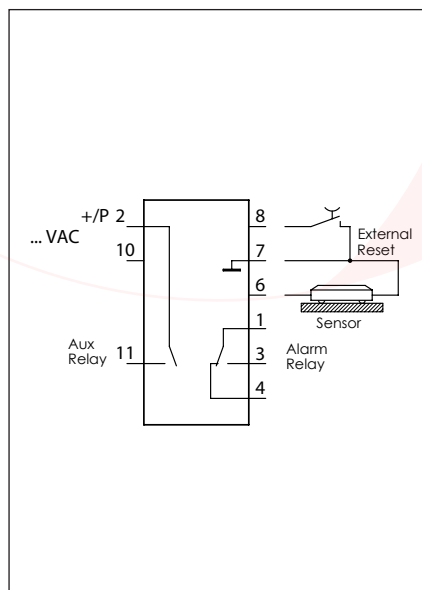
Type	A../90..	A.. / 240..
Current input:	0.0 ... 100.0 µA 0.0 ... 20.0 mA 4.0 ... 20.0 mA	0.0 ... 100.0 µA 0.0 ... 20.0 mA 4.0 ... 20.0 mA
Scaling:	0 ... 100 %, special scale possible	0 ... 100 %, special scale possible
Indication angle:	90°	240°
Material of window:	Glass	Glass
Housing material quality:	Polycarbonate	Sheet steel, ( A48/240.. Polycarbonate )
Ambient temperature:	-10°C ... 55°C	-25°C ... 40°C
Atmospheric humidity:	< 75 % RH annual average, non-condensing	< 75 % RH annual average, non-condensing
Weight:	110 g / 150 g / 200 g / 250 g	200 g / 300 g / 400 g / 900 g
Ingress protection class ( Housing / Connections ):	IP 52 / IP00	IP 52 / IP 00
Dimensions:	Type A48/90.. 48.0 x 48.0 mm Type A72/90.. 72.0 x 72.0 mm Type A96/90.. 96.0 x 96.0 mm Type A144/90.. 144.0 x 144.0 mm	Type A48/240.. 48.0 x 48.0 mm Type A72/240.. 72.0 x 72.0 mm Type A96/240.. 96.0 x 96.0 mm Type A144/240.. 144.0 x 144.0 mm
Mounting dimensions:	Type A48/90.. 42.5 x 42.5 mm Type A72/90.. 66.0 x 66.0 mm Type A96/90.. 90.0 x 90.0 mm Type A144/90.. 136.0 x 136.0 mm	Type A48/240.. 45 x 45 mm Type A72/240.. 66.0 x 66.0 mm Type A96/240.. 240.0 x 240.0 mm Type A144/240.. 137.0 x 137.0 mm
EMV 2004/108/EG:	EN 60051, -1, -2, -9 EN 60529 EN 61010-1 EN 61326-1	EN 60051 EN 61010
Climatic suitability:	Climatic class 3 acc. to VDE/VDI 3540 page 2	Climatic class 3 acc. to VDE/VDI 3540 page 2
Approvals / Certificates:	-	-



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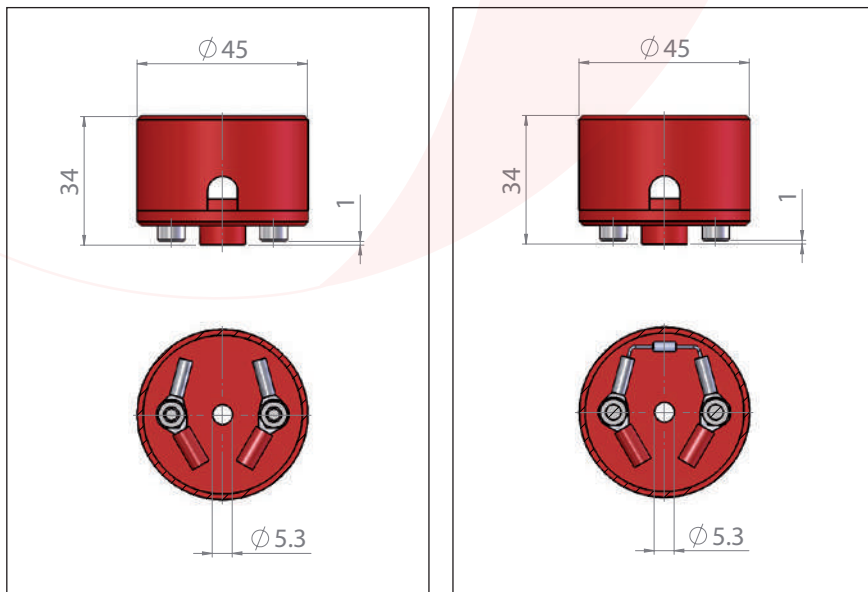
## Control Units / Leakage detector GL..

Type	GL100..	GL1101
Power supply:	GL1002 115 VAC GL1003 230 VAC	GL1101 24 VDC
Input:	Floor electrodes AF ( Cascade electrode ) AFE ( End electrode )	Floor electrodes AF ( Cascade electrode ) AFE ( End electrode )
Relay outputs:	1 Normally open 250 V AC 1 Change over 250 V AC / 5A potential-free	2 Change over 250 V AC / 5A potential-free
Safety insulation:	4 kV	4 kV
Sensitivity range:	100 kOhm / 33 kOhm	100 kOhm / 33 kOhm
Switching delay:	3 Seconds	3 Seconds
Terminating resistor:	240 kOhm	240 kOhm
Dimensions:	W 36.0 x H 68.0 x D 75.0 mm	W 36.0 x H 68.0 x D 75.0 mm
Mounting dimensions / Housing material quality:	-	-
Ambient temperature:	0°C ... 50°C	0°C ... 50°C
Atmospheric humidity:	< 95 % RH ( not condensed )	< 95 % RH ( not condensed )
Weight:	250 g	250 g
Ingress protection class ( Housing / Connections ):	IP 50 / IP 20	IP 50 / IP 20
LED-Display:	Green - Power supply Orange - Wire break Red - Alarm relay	Green - Power supply Orange - Wire break Red - Alarm relay
Function:	Leakage detector for e.g. ingress of water - with test function button - external reset key	Leakage detector for e.g. ingress of water - with test function button - external reset key
EMV 83/336/EG:	EN 61000-6-2 / EN 61000-6-3 EN 61000-4-2 EN 61000-4-3 EN 61000-4-6 EN 61000-4-13	EN 61000-6-2 / EN 61000-6-3 EN 61000-4-2 EN 61000-4-3 EN 61000-4-6 EN 61000-4-13
Mounting:	11-pole mounting socket type MST11 ( Please ordered separately )	11-pole mounting socket type MST11 ( Please ordered separately )
Approvals / Certificates:	GL / BV	GL / BV



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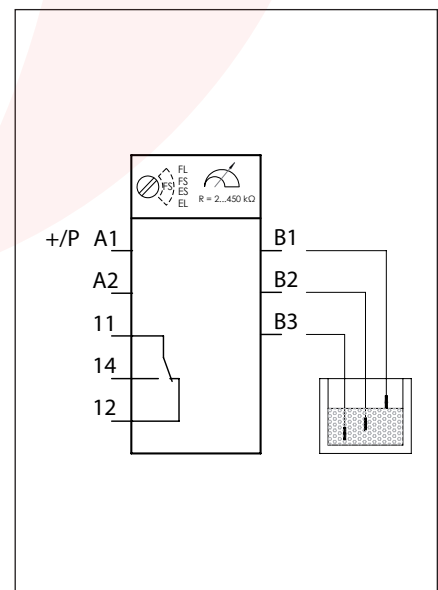
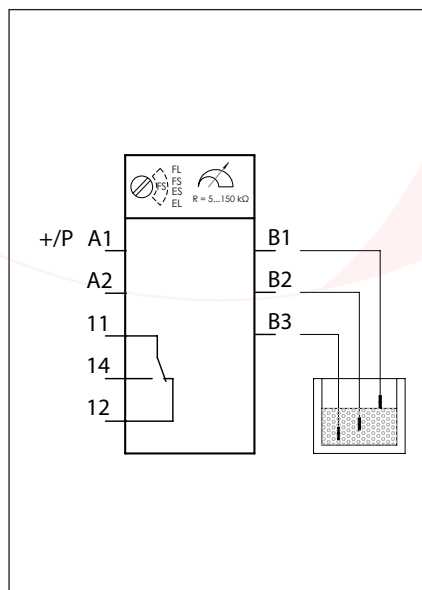
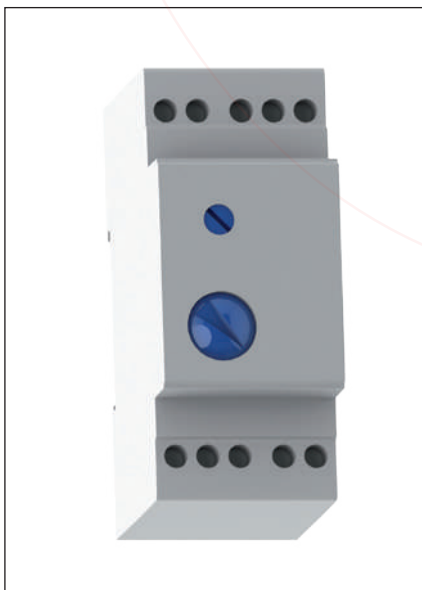
Type	AF ( Cascade electrode )	AFE ( End electrode )
Power supply:	-	-
Input:	-	-
Output:	-	-
Safety insulation:	-	-
Sensitivity range:	-	-
Distance of the electrodes:	1.0 mm	1.0 mm
Terminating resistor:	-	240 kOhm
Dimensions:	ø 45.0 x 34.0 mm	ø 45.0 x 34.0 mm
Housing material quality:	PVC / Stainless steel	PVC / Stainless steel
Ambient temperature:	-40°C ... 60°C	-40°C ... 60°C
Atomspheric humidity:	-	-
Weight:	30 g	30 g
Ingress protection class ( Housing / Connections ):	-	-
LED-Display:	-	-
Function:	Cascade electrode for connection to Leckage detector GL100.. / GL1101	End electrode for connection to Leckage detector GL100.. / GL1101
EMV 83/336/EG:	-	-
Mounting bore:	ø 5.0 mm	ø 5.0 mm
Approvals / Certificates:	-	-



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## Control Units / Conductive level controller 7201..

Type	7201..S	7201..E
Power supply:	72011S 24 VDC* 72012S 115 VAC 72013S 230 VAC	72013E 230 VAC
Sondenversorgung:	4 V AC / 0.2 mA	4 V AC / 0.2 mA
Output:	1 Change over 250 V AC / 16 A / 750 VA potential-free	1 Change over 250 V AC / 16 A / 750 VA potential-free
Safety insulation:	6 kV	6 kV
Sensitivity range:	5 ... 150 kOhm (adjustable)	2 ... 450 kOhm (adjustable)
Delay time:	0.5 / 7 Seconds (selectable)	0.5 / 7 Seconds (selectable)
Dimensions:	W 35.0 x H 84.0 x D 58.0 mm	W 35.0 x H 84.0 x D 58.0 mm
Mounting dimensions / Housing material quality:	-	-
Ambient temperature:	-20°C ... 60°C	-20°C ... 60°C
Atmospheric humidity:	< 95 % RH (not condensed)	< 95 % RH (not condensed)
Weight:	180 g	180 g
Ingress protection class:	IP 20	IP 20
LED-Display:	-	-
Function:	Level monitoring 1-point regulator or 2-point regulator	Level monitoring 1-point regulator or 2-point regulator
EMV 2004/108/EG:	EN 61000-4-2, -3, -4, -5, -6 EN 55022	EN 61000-4-2, -3, -4, -5, -6 EN 55022
Mounting:	Mounting rail DIN EN 60715 TH35	Mounting rail DIN EN 60715 TH35
Approvals / Certificates:	GOST	GOST



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\* = only to be used on a not grounded, galvanically isolated 24V DC power supply



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