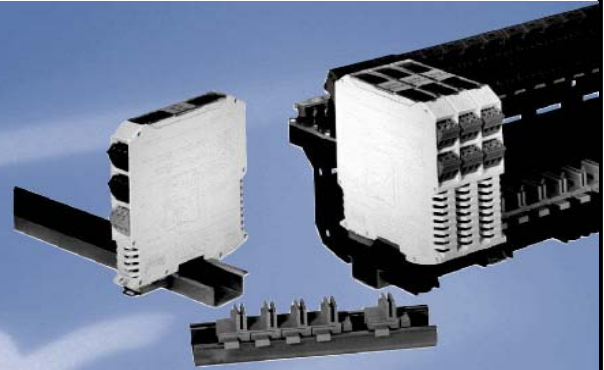


## I.S. Isolators



Engineering Guide

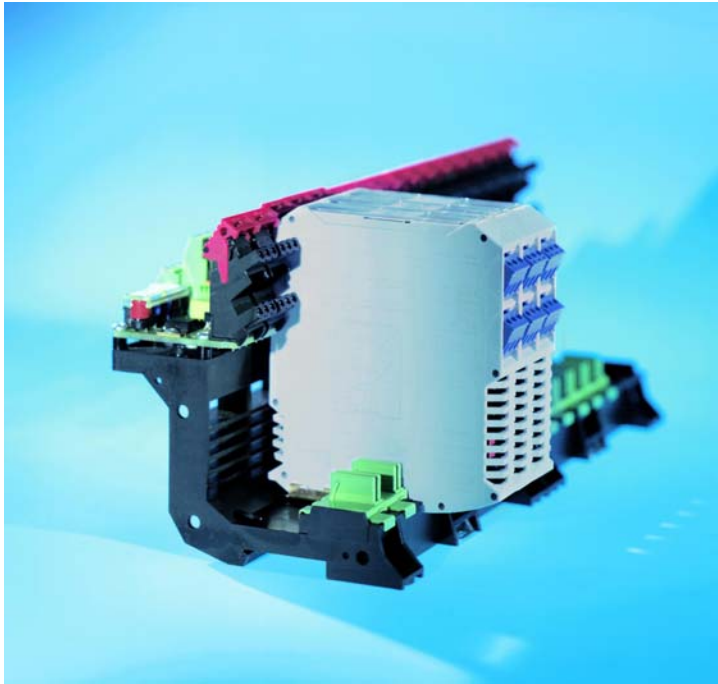
# pac-Carriers Type 9195

for TRICON system TRICONEX TMR PLC



## Content

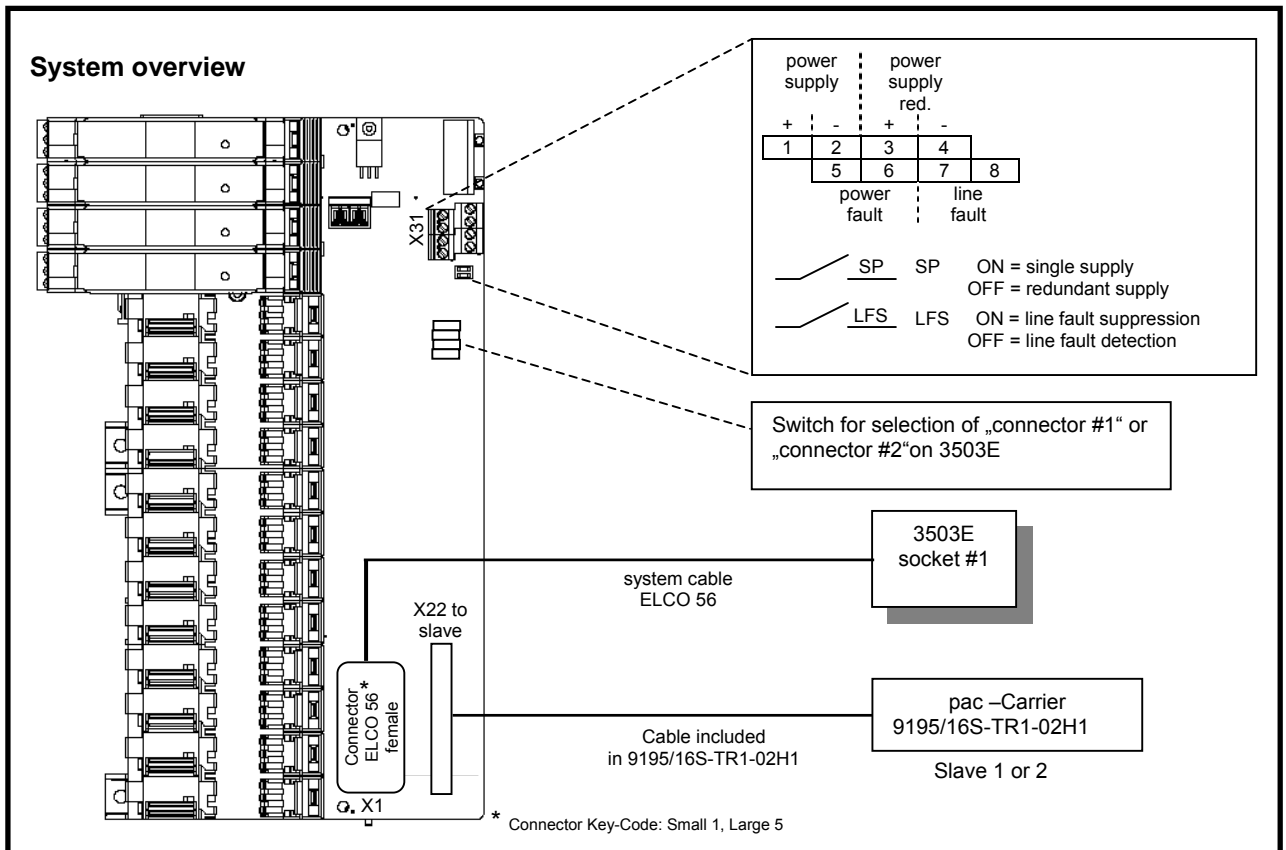
I/O-cards type	Signal type	Slots	Redundancy	Type
3503E	16 x DI	16	no	9195/16M-TR1-02G1 (Master)
3503E	16 x DI	16	no	9195/16S-TR1-02H1 (Slave)
3704E	16 x AI	16	no	9195/16M-TR1-01G1 (Master)
3704E	16 x AI	16	no	9195/16S-TR1-01H1 (Slave)



**pac-Carrier  
Type 9195 / 16M – TR1 – 02G1**

- For Triconex / Version 9 Tricon System / 3503E
  - 2 x 9195/16M-TR1-02G1 (Master) and 2 x 9195/16S-TR1-02H1 (Slave)
- Signal types: 16 x DI
- pac-Carrier for 16 modules, up to 16 signals
- IS pac isolators AI 9170/10-14-11, 9170/10-11-11 can be used
- Customized system cables type ELCO 56 to automation systems (Master)
- Redundant power supply with message contact and exchangeable fuses
- Horizontal or vertical installation
- Simple installation on DIN rail or mounting plate
- Many labeling possibilities
- Fast and secure installation of the isolators without tools
- Comfortable exchange of the isolators with secured ejector mechanism
- Installation possible in Zone 2 and Div. 2

Comfortable and simple integration of the I.S. isolators IS pac into Triconex automation systems via system specific connection boards and system cables.



**Selection table**

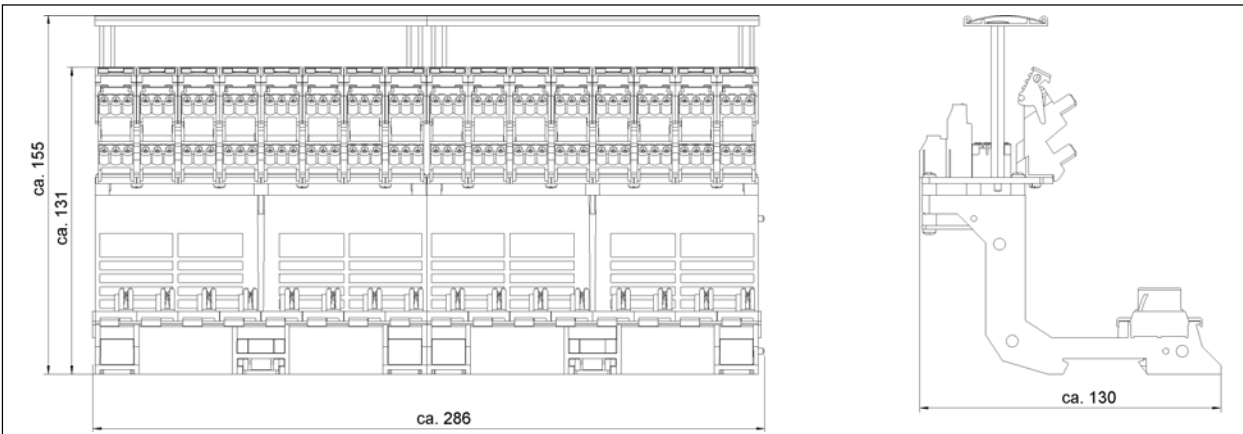
Control system			pac-Carrier			
PLS manufacturer	PLS type	I/O-cards type	Slots	HART-MUX	Redundancy	Type
Triconex	Version 9 Tricon System	3503E	16	no	no	9195/16M-TR1-02G1

**Technical data**

<b>Certificates</b>	BVS 03 E213 X
<b>Explosion protection</b>	⊕ II 3 G EEx nAC II T4
<b>Installation</b>	In Zone 2, Div. 2 and in the safe area
<b>Power supply</b>	<b>(X31)</b>
Nominal voltage $U_N$	24 V DC (19 V ... 31,2 V)
Redundant supply	yes, decoupled with diodes
Indication	2 LED green „PWR1“; „PWR2“
Fuse	2 x TR5; T 2,0 A; exchangeable, for primary and redundant supply
Polarity reversal protection	yes
<b>Connection field devices</b>	
Connection	at the terminals of the I.S. isolators (see “signal loops”)
Number of channels	16
<b>Connection automation system</b>	<b>(X01)</b>
Connection	ELCO 56 female, Key-Code: Small 1, Large 5
Number of channels	16
<b>Connecton to slave carrier</b>	<b>(X22)</b>
Connection	IEC 60603-13 (DIN 41651) 34 pole, male
Number of channels	16
<b>Error messaging</b>	<b>(X31)</b>
Power supply failure PF	Contact (35 V / 100 mA), closed in good conditions
Line fault LF (of IS pac modules)	Contact (35 V / 100 mA), closed in good conditions
Setting switch „SP“	Power failure message suppressed for redundant supply (single supply)
Setting switch „LFS“	Line fault message suppressed
<b>Ambient conditions</b>	
Ambient temperature	max. - 20 °C ... + 70 °C (see specification of I.S. isolators)
Storage temperature	- 40 °C ... + 80 °C
Relative humidity (no condensation)	≤95 %
<b>Mechanical data</b>	
Weight	approx. 320 g
Mounting type	on DIN rail, EN 50022 (NS35 / 15, NS35 / 7.5) or mounting plate (4 x screw M6)
Mounting position	horizontal or vertical
Casing / Terminal protection class	IP 00 / IP 20
Casing material	PA 6.6
Fire protecting class (UL-94)	V0



**Dimension drawing**



## Signal loops

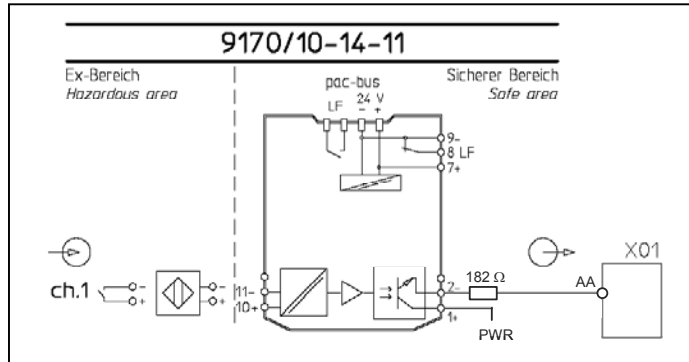
The diagram below shows a typical application. Please refer to the connection list to get the entire connection scheme. Basic technical parameters of the IS pac isolating repeaters can be found at the end of this document. The detailed specifications can be downloaded at: [www.ispac.info](http://www.ispac.info).

**Switching repeater (DI)**  
for NAMUR proximity switches and contacts

Electronic output  
9170/10-14-11

Relais output  
9170/10-11-11

Example loop for channel #1



## Connection list – Master 1 and 2

terminal i.s. 1)	channel	carrier slot	carrier input no.	pin X01 conn. #1 (Elco 56 female)
10 +	1	1	1	AA
11 -	1	1	1	AA
10 +	2	2	2	LL
11 -	2	2	2	LL
10 +	3	3	3	z
11 -	3	3	3	z
10 +	4	4	4	EE
11 -	4	4	4	EE
10 +	5	5	5	p
11 -	5	5	5	p
10 +	6	6	6	v
11 -	6	6	6	v
10 +	7	7	7	h
11 -	7	7	7	h
10 +	8	8	8	l
11 -	8	8	8	l
10 +	9	9	9	e
11 -	9	9	9	e
10 +	10	10	10	b
11 -	10	10	10	b
10 +	11	11	11	W
11 -	11	11	11	W
10 +	12	12	12	S
11 -	12	12	12	S
10 +	13	13	13	L
11 -	13	13	13	L
10 +	14	14	14	F
11 -	14	14	14	F
10 +	15	15	15	M
11 -	15	15	15	M
10 +	16	16	16	B
11 -	16	16	16	B

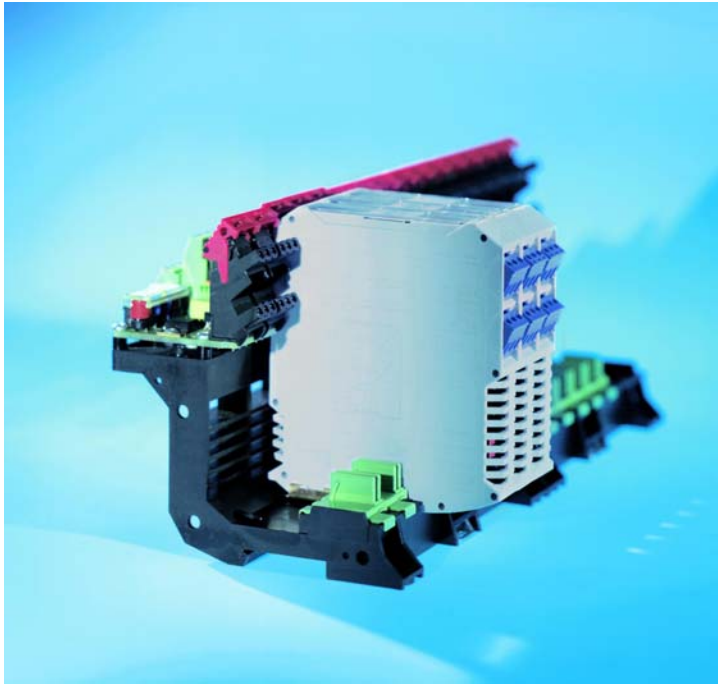
terminal i.s. 1)	channel	carrier slot	carrier input no.	pin X01 conn. #2 (Elco 56 female)
10 +	33	1	33	AA
11 -	33	1	33	AA
10 +	34	2	34	LL
11 -	34	2	34	LL
10 +	35	3	35	z
11 -	35	3	35	z
10 +	36	4	36	EE
11 -	36	4	36	EE
10 +	37	5	37	p
11 -	37	5	37	p
10 +	38	6	38	v
11 -	38	6	38	v
10 +	39	7	39	h
11 -	39	7	39	h
10 +	40	8	40	l
11 -	40	8	40	l
10 +	41	9	41	e
11 -	41	9	41	e
10 +	42	10	42	b
11 -	42	10	42	b
10 +	43	11	43	W
11 -	43	11	43	W
10 +	44	12	44	S
11 -	44	12	44	S
10 +	45	13	45	L
11 -	45	13	45	L
10 +	46	14	46	F
11 -	46	14	46	F
10 +	47	15	47	M
11 -	47	15	47	M
10 +	48	16	48	B
11 -	48	16	48	B



Connection list – Slave 1 and 2

terminal i.s. 1)		channel	carrier slot	carrier input no.	pin X01 conn. #1 (Elco 56 female)	terminal i.s. 1)		channel	carrier slot	carrier input no.	pin X01 conn. #2 (Elco 56 female)		
10	+	17	1	Slave 1	17	BB	10	+	49	1	Slave 2	49	BB
11	-						11	-					
10	+	18	2				10	+	50	2			
11	-						11	-					
10	+	19	3				10	+	51	3			
11	-						11	-					
10	+	20	4				10	+	52	4			
11	-						11	-					
10	+	21	5				10	+	53	5			
11	-						11	-					
10	+	22	6				10	+	54	6			
11	-						11	-					
10	+	23	7				10	+	55	7			
11	-						11	-					
10	+	24	8				10	+	56	8			
11	-						11	-					
10	+	25	9	10	+	57	9						
11	-			11	-								
10	+	26	10	10	+	58	10						
11	-			11	-								
10	+	27	11	10	+	59	11						
11	-			11	-								
10	+	28	12	10	+	60	12						
11	-			11	-								
10	+	29	13	10	+	61	13						
11	-			11	-								
10	+	30	14	10	+	62	14						
11	-			11	-								
10	+	31	15	10	+	63	15						
11	-			11	-								
10	+	32	16	10	+	64	16						
11	-			11	-								

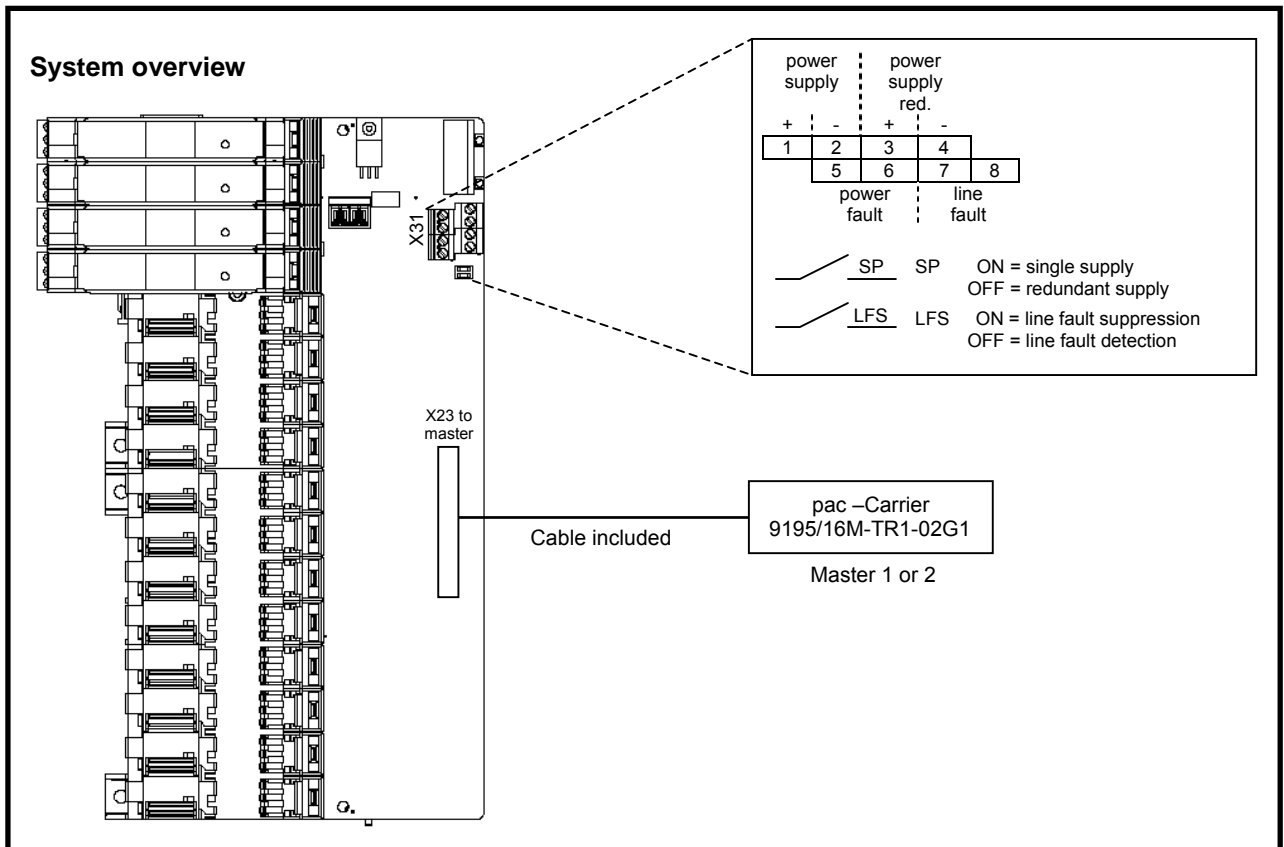




Comfortable and simple integration of the I.S. isolators IS pac into Triconex automation systems via system specific connection boards and system cables.

#### pac-Carrier Type 9195 / 16S – TR1 – 02H1

- For Triconex / Version 9 Tricon System/ 3503E
  - 2 x 9195/16M-TR1-02G1 (Master) and
  - 2 x 9195/16S-TR1-02H1 (Slave)
- Signal types: 16 x DI
- pac-Carrier for 16 modules, up to 16 signals
- IS pac isolators AI 9170/10-14-11, 9170/10-11-11 can be used
- Customized system cables type ELCO 56 to automation systems (Master)
- Redundant power supply with message contact and exchangeable fuses
- Horizontal or vertical installation
- Simple installation on DIN rail or mounting plate
- Many labeling possibilities
- Fast and secure installation of the isolators without tools
- Comfortable exchange of the isolators with secured ejector mechanism
- Installation possible in Zone 2 and Div. 2



**Selection table**

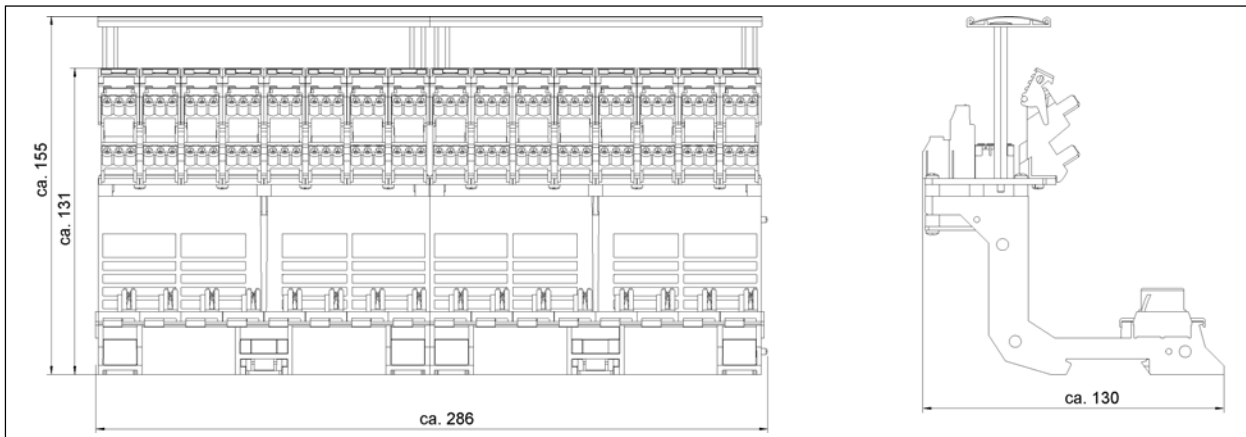
Control system			pac-Carrier			
PLS manufacturer	PLS type	I/O-cards type	Slots	HART-MUX	Redundancy	Type
Triconex	Version 9 Tricon System	3503E	16	no	no	9195/16S-TR1-02H1

**Technical data**

<b>Certificates</b>	BVS 03 E213 X
<b>Explosion protection</b>	⊕ II 3 G EEx nAC II T4
<b>Installation</b>	In Zone 2, Div. 2 and in the safe area
<b>Power supply</b>	<b>(X31)</b>
Nominal voltage U <sub>N</sub>	24 V DC (19 V ... 31,2 V)
Redundant supply	yes, decoupled with diodes
Indication	2 LED green „PWR1“; „PWR2“
Fuse	2 x TR5; T 2,0 A; exchangeable, for primary and redundant supply
Polarity reversal protection	yes
<b>Connection field devices</b>	
Connection	at the terminals of the I.S. isolators (see “signal loops”)
Number of channels	16
<b>Connection to master</b>	<b>(X23)</b>
Connection	IEC 60603-13 (DIN 41651) 34 pole, male
Number of channels	16
<b>Error messaging</b>	<b>(X31)</b>
Power supply failure PF	Contact (35 V / 100 mA), closed in good conditions
Line fault LF (of IS pac modules)	Contact (35 V / 100 mA), closed in good conditions
Setting switch „SP“	Power failure message suppressed for redundant supply (single supply)
Setting switch „LFS“	Line fault message suppressed
<b>Ambient conditions</b>	
Ambient temperature	max. - 20 °C ... + 70 °C (see specification of I.S. isolators)
Storage temperature	- 40 °C ... + 80 °C
Relative humidity (no condensation)	≤95 %
<b>Mechanical data</b>	
Weight	approx. 320 g
Mounting type	on DIN rail, EN 50022 (NS35 / 15, NS35 / 7.5) or mounting plate (4 x screw M6)
Mounting position	horizontal or vertical
Casing / Terminal protection class	IP 00 / IP 20
Casing material	PA 6.6
Fire protecting class (UL-94)	V0



**Dimension drawing**



### Signal loops

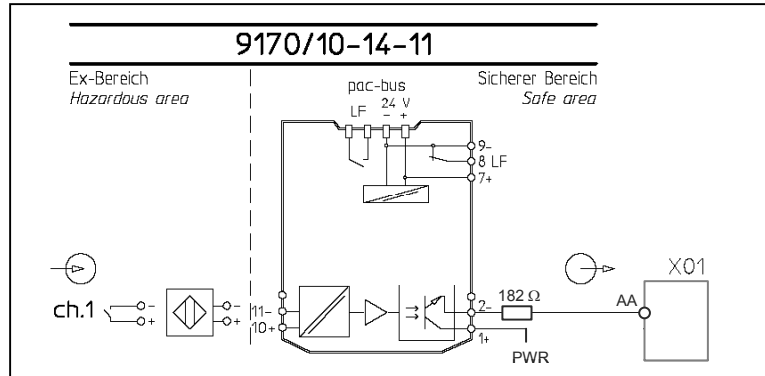
The diagram below shows a typical application. Please refer to the connection list to get the entire connection scheme. Basic technical parameters of the IS pac isolating repeaters can be found at the end of this document. The detailed specifications can be downloaded at: [www.ispac.info](http://www.ispac.info).

**Switching repeater (DI)**  
for NAMUR proximity switches and contacts

Electronic output  
9170/10-14-11

Relais output  
9170/10-11-11

Example loop for channel #1



### Connection list – Master 1 and 2

terminal i.s.	channel	carrier slot	carrier input no.	pin X01 conn. #1 (Elco 56 female)
10 +	1	1	Master 1	1 AA
11 -	1	1		2 LL
10 +	2	2		3 z
11 -	2	2		4 EE
10 +	3	3		5 p
11 -	3	3		6 v
10 +	4	4		7 h
11 -	4	4		8 l
10 +	5	5		9 e
11 -	5	5		10 b
10 +	6	6		11 W
11 -	6	6		12 S
10 +	7	7		13 L
11 -	7	7		14 F
10 +	8	8		15 M
11 -	8	8		16 B

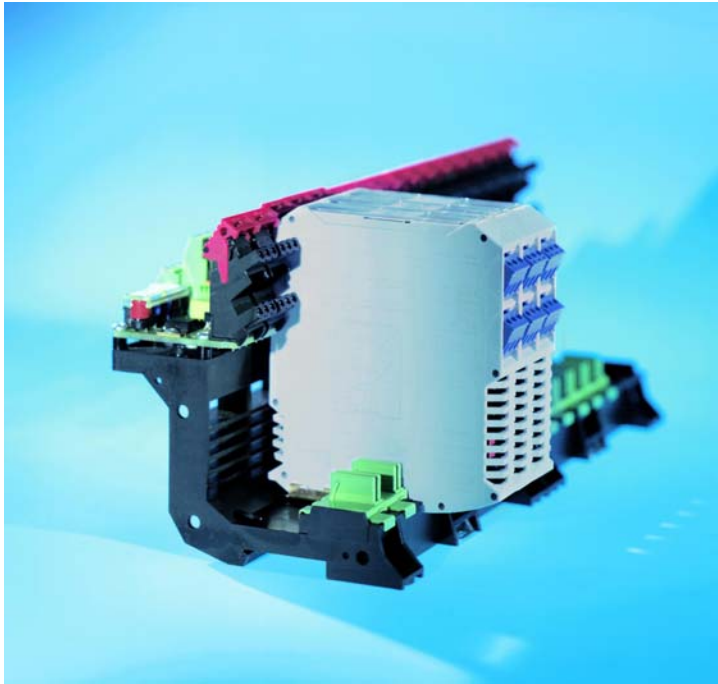
terminal i.s.	channel	carrier slot	carrier input no.	pin X01 conn. #2 (Elco 56 female)
10 +	33	1	Master 2	33 AA
11 -	33	1		34 LL
10 +	34	2		35 z
11 -	34	2		36 EE
10 +	35	3		37 p
11 -	35	3		38 v
10 +	36	4		39 h
11 -	36	4		40 l
10 +	37	5		41 e
11 -	37	5		42 b
10 +	38	6		43 W
11 -	38	6		44 S
10 +	39	7		45 L
11 -	39	7		46 F
10 +	40	8		47 M
11 -	40	8		48 B



Connection list – Slave 1 and 2

terminal i.s. 1)		channel	carrier slot	carrier input no.	pin X01 conn. #1 (Elco 56 female)	terminal i.s. 1)		channel	carrier slot	carrier input no.	pin X01 conn. #2 (Elco 56 female)		
10	+	17	1	Slave 1	17	BB	10	+	49	1	Slave 2	49	BB
11	-						11	-					
10	+	18	2				10	+	50	2			
11	-						11	-					
10	+	19	3				10	+	51	3			
11	-						11	-					
10	+	20	4				10	+	52	4			
11	-						11	-					
10	+	21	5				10	+	53	5			
11	-						11	-					
10	+	22	6				10	+	54	6			
11	-						11	-					
10	+	23	7				10	+	55	7			
11	-						11	-					
10	+	24	8				10	+	56	8			
11	-						11	-					
10	+	25	9	10	+	57	9						
11	-			11	-								
10	+	26	10	10	+	58	10						
11	-			11	-								
10	+	27	11	10	+	59	11						
11	-			11	-								
10	+	28	12	10	+	60	12						
11	-			11	-								
10	+	29	13	10	+	61	13						
11	-			11	-								
10	+	30	14	10	+	62	14						
11	-			11	-								
10	+	31	15	10	+	63	15						
11	-			11	-								
10	+	32	16	10	+	64	16						
11	-			11	-								

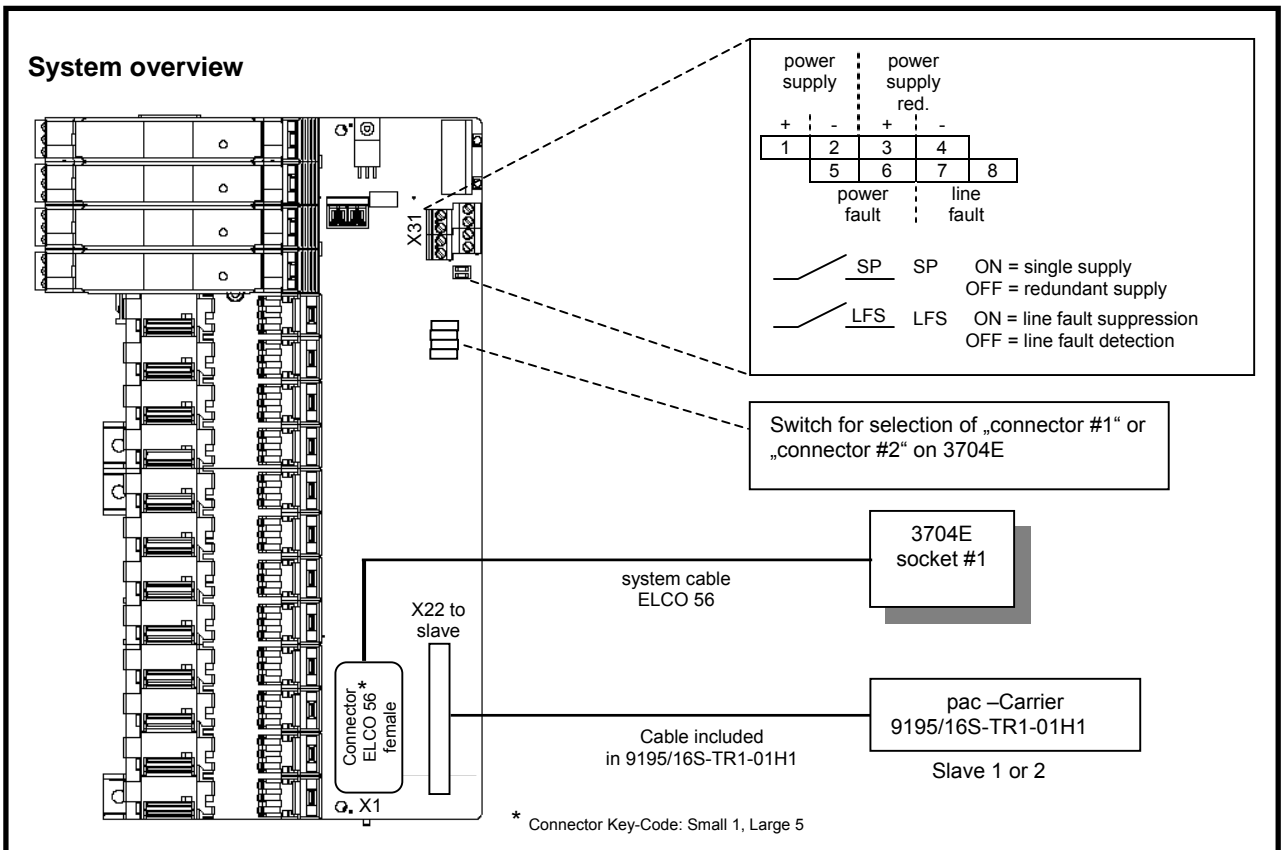




**pac-Carrier  
Type 9195 / 16M – TR1 – 01G1**

- For Triconex / Version 9 Tricon System/ 3704E
  - 2 x 9195/16M-TR1-01G1 (Master) and 2 x 9195/16S-TR1-01H1 (Slave)
- Signal types: 16 x AI
- pac-Carrier for 16 modules, up to 16 signals
- IS pac isolators AI 9160/13-11-11, 9163/13-11-11, 9182/10-51-11 can be used
- Customized system cables type ELCO 56 to automation systems (Master)
- Redundant power supply with message contact and exchangeable fuses
- Horizontal or vertical installation
- Simple installation on DIN rail or mounting plate
- Many labeling possibilities
- Fast and secure installation of the isolators without tools
- Comfortable exchange of the isolators with secured ejector mechanism
- Installation possible in Zone 2 and Div. 2

Comfortable and simple integration of the I.S. isolators IS pac into Triconex automation systems via system specific connection boards and system cables.



**Selection table**

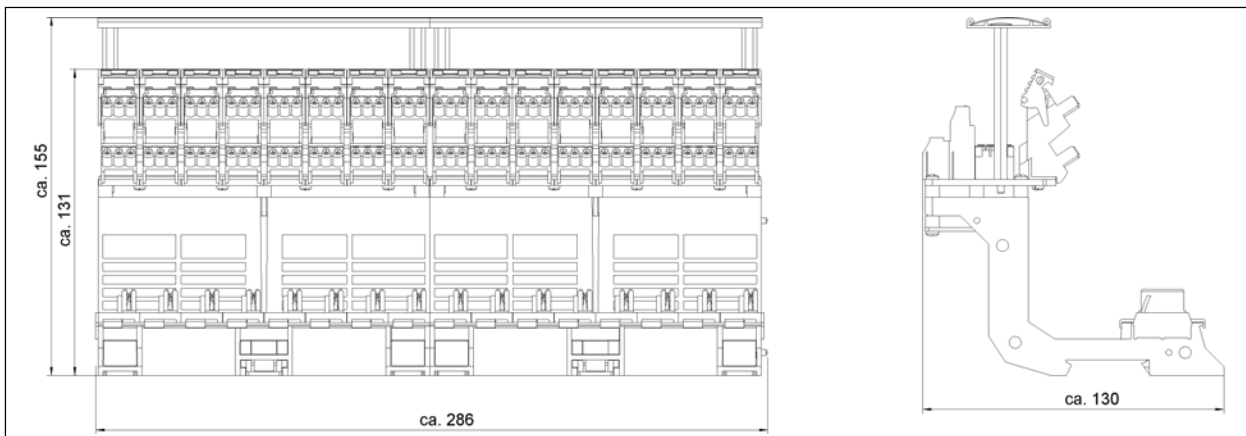
Control system			pac-Carrier			
PLS manufacturer	PLS type	I/O-cards type	Slots	HART-MUX	Redundancy	Type
Triconex	Version 9 Tricon System	3704E	16	no	no	9195/16M-TR1-01G1

**Technical data**

<b>Certificates</b>	BVS 03 E213 X
<b>Explosion protection</b>	⊕ II 3 G EEx nAC II T4
<b>Installation</b>	In Zone 2, Div. 2 and in the safe area
<b>Power supply</b>	<b>(X31)</b>
Nominal voltage $U_N$	24 V DC (19 V ... 31,2 V)
Redundant supply	yes, decoupled with diodes
Indication	2 LED green „PWR1“; „PWR2“
Fuse	2 x TR5; T 2,0 A; exchangeable, for primary and redundant supply
Polarity reversal protection	yes
<b>Connection field devices</b>	
Connection	at the terminals of the I.S. isolators (see “signal loops”)
Number of channels	16
<b>Connection automation system</b>	<b>(X01)</b>
Connection	ELCO 56 female, Key-Code: Small 1, Large 5
Number of channels	16
<b>Connecton to slave carrier</b>	<b>(X22)</b>
Connection	IEC 60603-13 (DIN 41651) 34 pole, male
<b>Error messaging</b>	<b>(X31)</b>
Power supply failure PF	Contact (35 V / 100 mA), closed in good conditions
Line fault LF (of IS pac modules)	Contact (35 V / 100 mA), closed in good conditions
Setting switch „SP“	Power failure message suppressed for redundant supply (single supply)
Setting switch „LFS“	Line fault message suppressed
<b>Ambient conditions</b>	
Ambient temperature	max. - 20 °C ... + 70 °C (see specification of I.S. isolators)
Storage temperature	- 40 °C ... + 80 °C
Relative humidity (no condensation)	≤95 %
<b>Mechanical data</b>	
Weight	approx. 320 g
Mounting type	on DIN rail, EN 50022 (NS35 / 15, NS35 / 7.5) or mounting plate (4 x screw M6)
Mounting position	horizontal or vertical
Casing / Terminal protection class	IP 00 / IP 20
Casing material	PA 6.6
Fire protecting class (UL-94)	V0



**Dimension drawing**

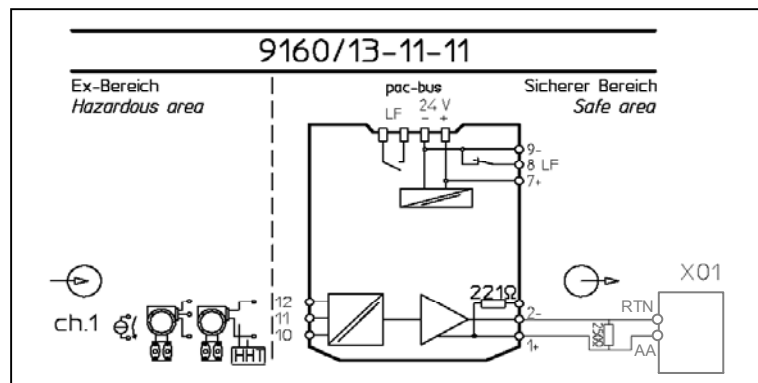


### Signal loops

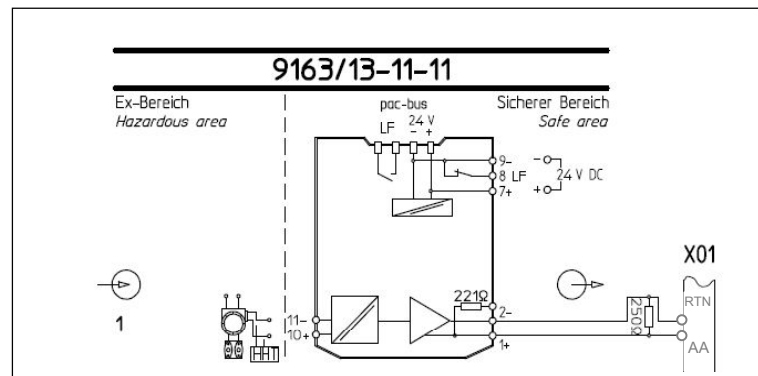
The diagram below shows a typical application. Please refer to the connection list to get the entire connection scheme.

Basic technical parameters of the IS pac isolating repeaters can be found at the end of this document. The detailed specifications can be downloaded at: [www.ispac.info](http://www.ispac.info).

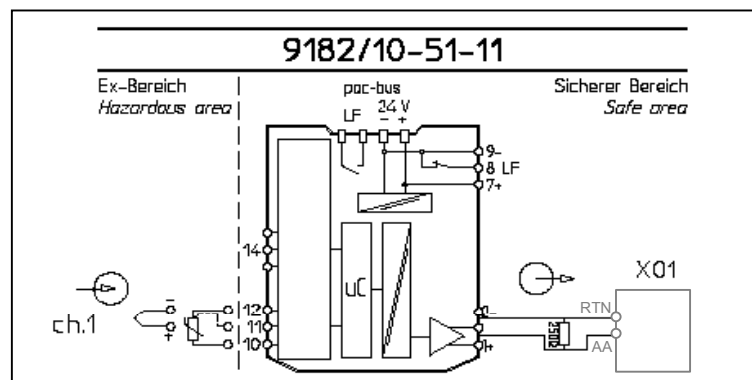
**Transmitter supply unit (AI)**  
for 2-,3- wire transmitter and mA- sources  
for 2- wire transmitter with HART



**Isolating repeater (AI)**  
for 4- wire transmitter and mA- sources  
bi- directional HART communication



**Temperature transmitter (AI)**  
for resistance thermometer, thermocouple  
and RTD  
(configuration via DIP switches  
or IS pac Wizard software)



Connection list – Master 1 and 2

Terminal Ex i 1)		channel	carrier slot	carrier input no.	pin X01 conn. #1 (Elco 56 female)	Terminal Ex i 1)		channel	carrier slot	carrier input no.	pin X01 conn. #2 (Elco 56 female)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
10	+	1	1	Master 1	1	AA	10	+	33	1	Master 2	33	AA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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## Connection list – Slave 1 and 2

Terminal Ex i 1)	channel	carrier slot	carrier input no.	pin X01 conn. #1 (Elco 56 female)
10 +	17	1	17	BB
11 -				
10 +	18	2	18	MM
11 -				
10 +	19	3	19	CC
11 -				
10 +	20	4	20	HH
11 -				
10 +	21	5	21	t
11 -				
10 +	22	6	22	x
11 -				
10 +	23	7	23	j
11 -				
10 +	24	8	24	m
11 -				
10 +	25	9	25	f
11 -				
10 +	26	10	26	c
11 -				
10 +	27	11	27	Z
11 -				
10 +	28	12	28	U
11 -				
10 +	29	13	29	P
11 -				
10 +	30	14	30	J
11 -				
10 +	31	15	31	N
11 -				
10 +	32	16	32	C
11 -				

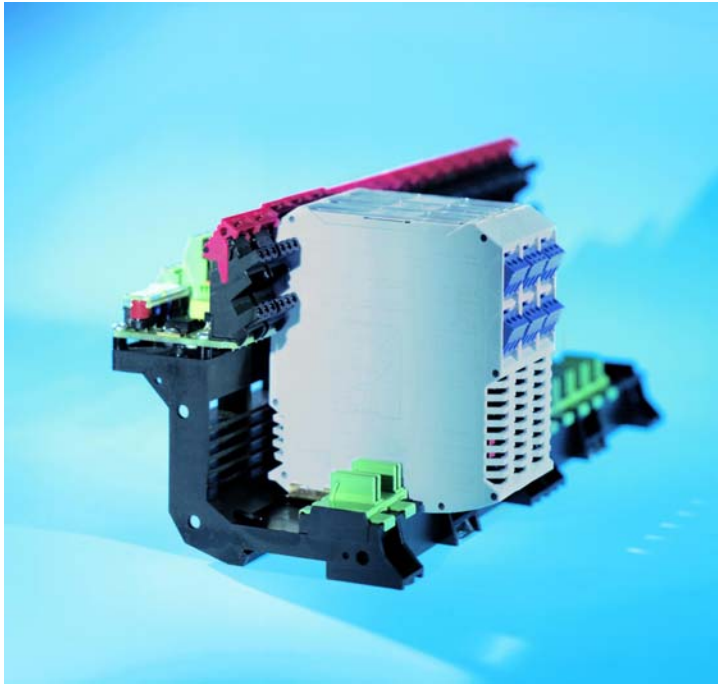
Slave 1

Terminal Ex i 1)	channel	carrier slot	carrier input no.	pin X01 conn. #2 (Elco 56 female)
10 +	49	1	49	BB
11 -				
10 +	50	2	50	MM
11 -				
10 +	51	3	51	CC
11 -				
10 +	52	4	52	HH
11 -				
10 +	53	5	53	t
11 -				
10 +	54	6	54	x
11 -				
10 +	55	7	55	j
11 -				
10 +	56	8	56	m
11 -				
10 +	57	9	57	f
11 -				
10 +	58	10	58	c
11 -				
10 +	59	11	59	Z
11 -				
10 +	60	12	60	U
11 -				
10 +	61	13	61	P
11 -				
10 +	62	14	62	J
11 -				
10 +	63	15	63	N
11 -				
10 +	64	16	64	C
11 -				

Slave 2







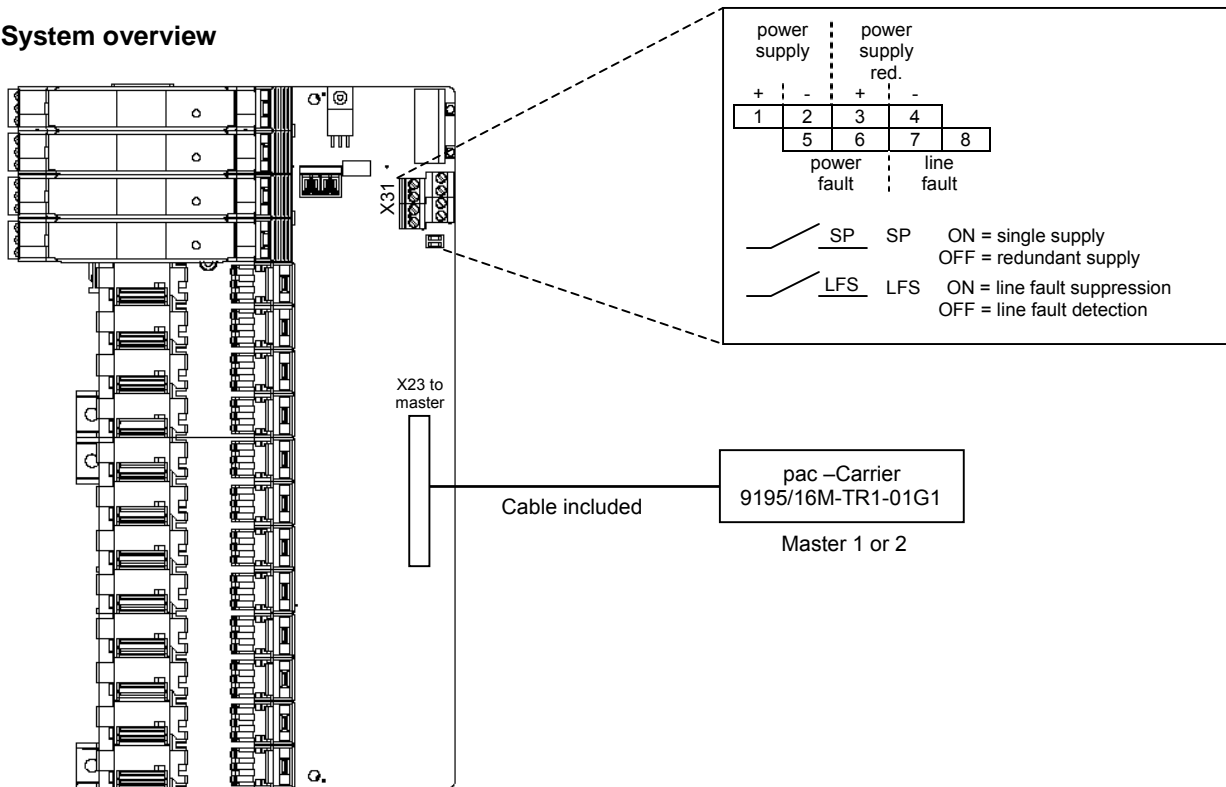
Comfortable and simple integration of the I.S. isolators IS pac into Triconex automation systems via system specific connection boards and system cables.

#### pac-Carrier Type 9195 / 16S – TR1 – 01H1

- For Triconex / Version 9 Tricon System / 3704E
  - 2 x 9195/16M-TR1-01G1 (Master) and
  - 2 x 9195/16S-TR1-01H1 (Slave)
- Signal types: 16 x AI
- pac-Carrier for 16 modules, up to 16 signals
- IS pac isolators AI 9160/13-11-11, 9163/13-11-11, 9182/10-51-11 can be used
- Customized system cables type ELCO 56 to automation systems (Master)
- Redundant power supply with message contact and exchangeable fuses
- Horizontal or vertical installation
- Simple installation on DIN rail or mounting plate
- Many labeling possibilities
- Fast and secure installation of the isolators without tools
- Comfortable exchange of the isolators with secured ejector mechanism
- Installation possible in Zone 2 and Div. 2

STAHL

#### System overview



**Selection table**

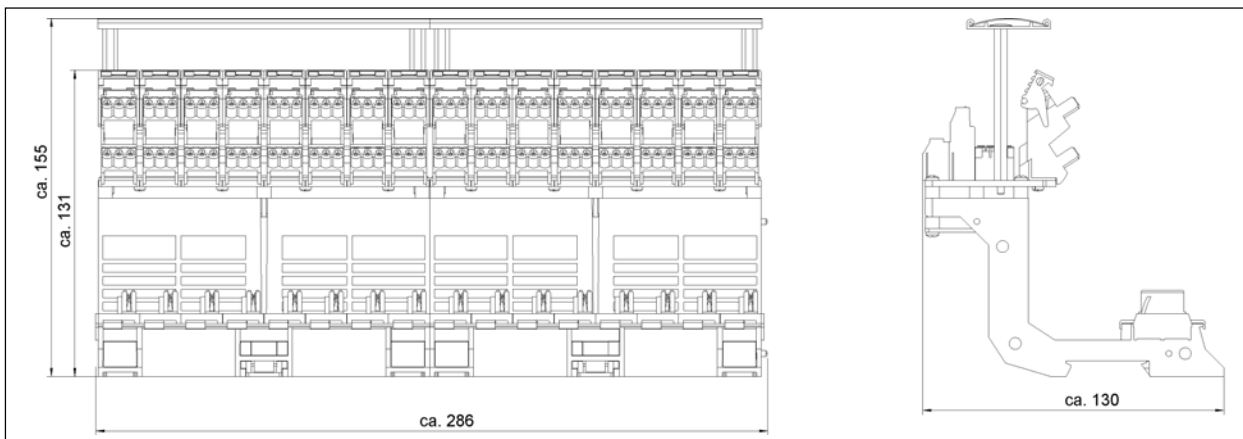
Control system			pac-Carrier			
PLS manufacturer	PLS type	I/O-cards type	Slots	HART-MUX	Redundancy	Type
Triconex	Version 9 Tricon System	3704E	16	no	no	9195/16S-TR1-01H1

**Technical data**

<b>Certificates</b>	BVS 03 E213 X
<b>Explosion protection</b>	⊕ II 3 G EEx nAC II T4
<b>Installation</b>	In Zone 2, Div. 2 and in the safe area
<b>Power supply</b>	<b>(X31)</b>
Nominal voltage $U_N$	24 V DC (19 V ... 31,2 V)
Redundant supply	yes, decoupled with diodes
Indication	2 LED green „PWR1“; „PWR2“
Fuse	2 x TR5; T 2,0 A; exchangeable, for primary and redundant supply
Polarity reversal protection	yes
<b>Connection field devices</b>	
Connection	at the terminals of the I.S. isolators (see “signal loops”)
Number of channels	16
<b>Connection to master</b>	<b>(X23)</b>
Connection	IEC 60603-13 (DIN 41651) 34 pole, male
Number of channels	16
<b>Error messaging</b>	<b>(X31)</b>
Power supply failure PF	Contact (35 V / 100 mA), closed in good conditions
Line fault LF (of IS pac modules)	Contact (35 V / 100 mA), closed in good conditions
Setting switch „SP“	Power failure message suppressed for redundant supply (single supply)
Setting switch „LFS“	Line fault message suppressed
<b>Ambient conditions</b>	
Ambient temperature	max. - 20 °C ... + 70 °C (see specification of I.S. isolators)
Storage temperature	- 40 °C ... + 80 °C
Relative humidity (no condensation)	≤95 %
<b>Mechanical data</b>	
Weight	approx. 320 g
Mounting type	on DIN rail, EN 50022 (NS35 / 15, NS35 / 7.5) or mounting plate (4 x screw M6)
Mounting position	horizontal or vertical
Casing / Terminal protection class	IP 00 / IP 20
Casing material	PA 6.6
Fire protecting class (UL-94)	V0



**Dimension drawing**

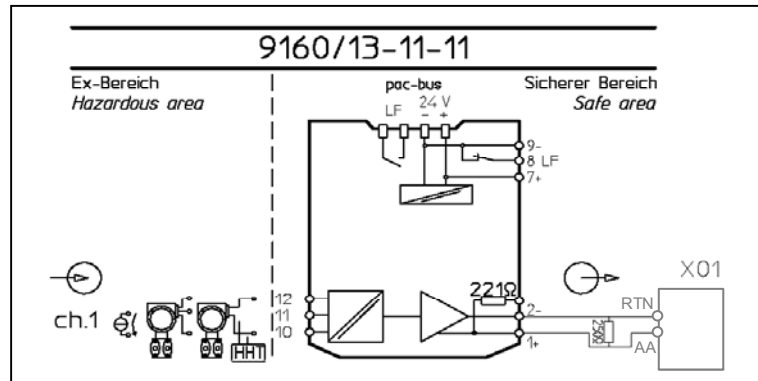


### Signal loops

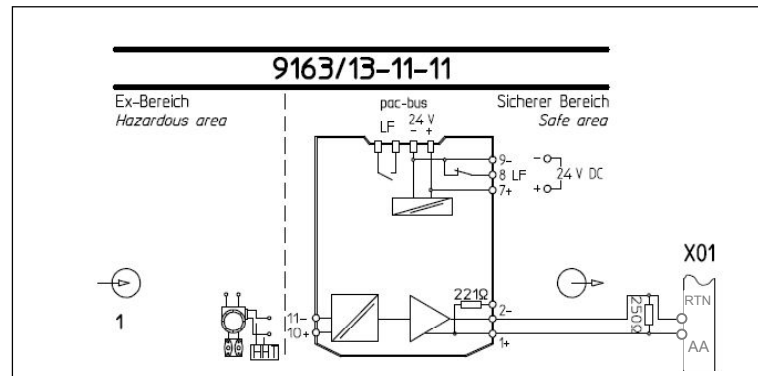
The diagram below shows a typical application. Please refer to the connection list to get the entire connection scheme.

Basic technical parameters of the IS pac isolating repeaters can be found at the end of this document. The detailed specifications can be downloaded at: [www.ispac.info](http://www.ispac.info).

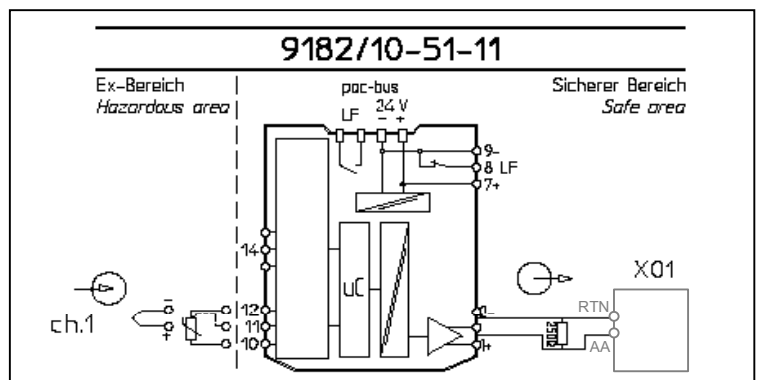
**Transmitter supply unit (AI)**  
for 2-,3- wire transmitter and mA- sources  
for 2- wire transmitter with HART



**Isolating repeater (AI)**  
for 4- wire transmitter and mA- sources  
bi- directional HART communication



**Temperature transmitter (AI)**  
for resistance thermometer, thermocouple  
and RTD  
(configuration via DIP switches  
or IS pac Wizard software)



Connection list – Master 1 and 2

Terminal Ex i 1)		channel	carrier slot	carrier input no.	pin X01 conn. #1 (Elco 56 female)
10 +		1	1	1	AA
11 -					
10 +		2	2	2	LL
11 -					
10 +		3	3	3	z
11 -					
10 +		4	4	4	EE
11 -					
10 +		5	5	5	p
11 -					
10 +		6	6	6	v
11 -					
10 +		7	7	7	h
11 -					
10 +		8	8	8	l
11 -					
10 +		9	9	9	e
11 -					
10 +		10	10	10	b
11 -					
10 +		11	11	11	W
11 -					
10 +		12	12	12	S
11 -					
10 +		13	13	13	L
11 -					
10 +		14	14	14	F
11 -					
10 +		15	15	15	M
11 -					
10 +		16	16	16	B
11 -					

Master 1

Terminal Ex i 1)		channel	carrier slot	carrier input no.	pin X01 conn. #2 (Elco 56 female)
10 +		33	1	33	AA
11 -					
10 +		34	2	34	LL
11 -					
10 +		35	3	35	z
11 -					
10 +		36	4	36	EE
11 -					
10 +		37	5	37	p
11 -					
10 +		38	6	38	v
11 -					
10 +		39	7	39	h
11 -					
10 +		40	8	40	l
11 -					
10 +		41	9	41	e
11 -					
10 +		42	10	42	b
11 -					
10 +		43	11	43	W
11 -					
10 +		44	12	44	S
11 -					
10 +		45	13	45	L
11 -					
10 +		46	14	46	F
11 -					
10 +		47	15	47	M
11 -					
10 +		48	16	48	B
11 -					

Master 2



## Connection list – Slave 1 and 2

Terminal Ex i 1)	channel	carrier slot	carrier input no.	pin X01 conn. #1 (Elco 56 female)
10 +	17	1	17	BB
11 -				
10 +	18	2	18	MM
11 -				
10 +	19	3	19	CC
11 -				
10 +	20	4	20	HH
11 -				
10 +	21	5	21	t
11 -				
10 +	22	6	22	x
11 -				
10 +	23	7	23	j
11 -				
10 +	24	8	24	m
11 -				
10 +	25	9	25	f
11 -				
10 +	26	10	26	c
11 -				
10 +	27	11	27	Z
11 -				
10 +	28	12	28	U
11 -				
10 +	29	13	29	P
11 -				
10 +	30	14	30	J
11 -				
10 +	31	15	31	N
11 -				
10 +	32	16	32	C
11 -				

Terminal Ex i 1)	channel	carrier slot	carrier input no.	pin X01 conn. #2 (Elco 56 female)
10 +	49	1	49	BB
11 -				
10 +	50	2	50	MM
11 -				
10 +	51	3	51	CC
11 -				
10 +	52	4	52	HH
11 -				
10 +	53	5	53	t
11 -				
10 +	54	6	54	x
11 -				
10 +	55	7	55	j
11 -				
10 +	56	8	56	m
11 -				
10 +	57	9	57	f
11 -				
10 +	58	10	58	c
11 -				
10 +	59	11	59	Z
11 -				
10 +	60	12	60	U
11 -				
10 +	61	13	61	P
11 -				
10 +	62	14	62	J
11 -				
10 +	63	15	63	N
11 -				
10 +	64	16	64	C
11 -				



