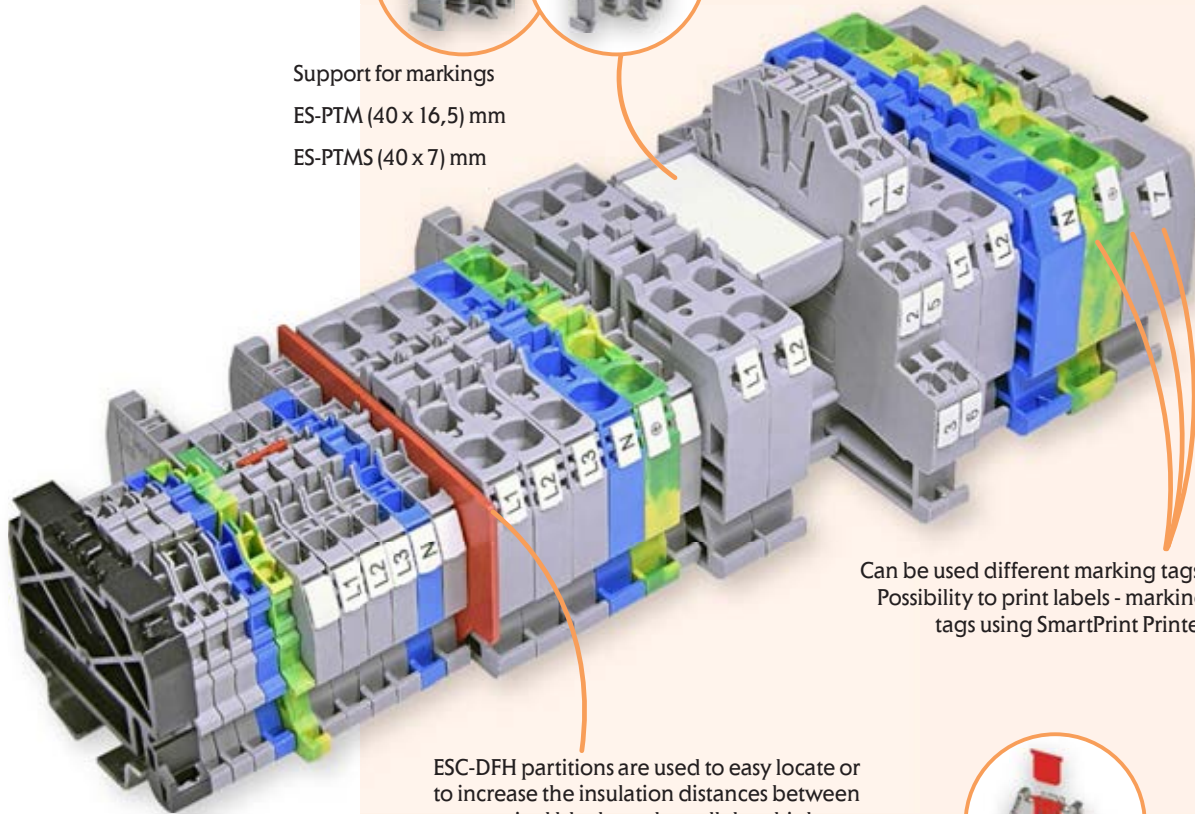


Spring clamp terminal blocks

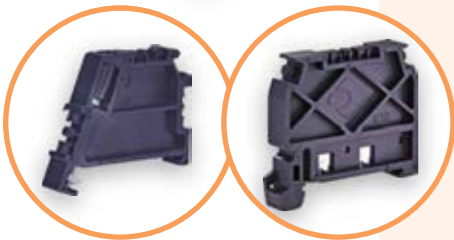


Support for markings
 ES-PTM (40 x 16,5) mm
 ES-PTMS (40 x 7) mm

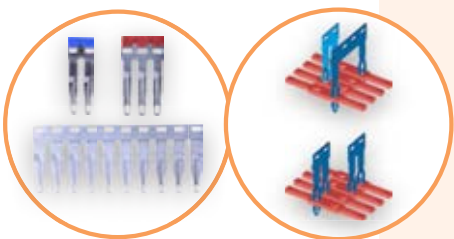
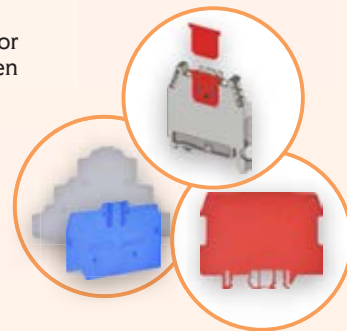


Can be used different marking tags:
 Possibility to print labels - marking tags using SmartPrint Printer

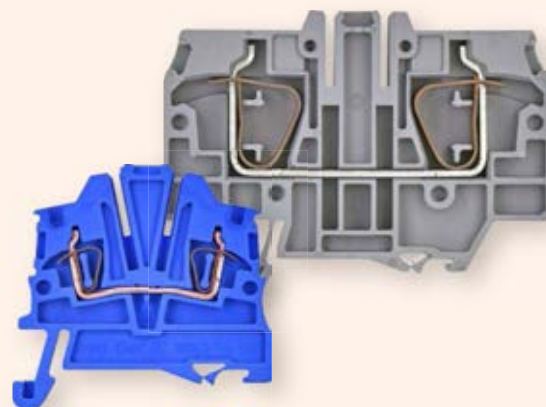
ESC-DFH partitions are used to easy locate or to increase the insulation distances between terminal blocks and parallel multiple commoning bars.



End brackets ES-BTO (spring type), ES-BT/3 (screw type) are used to lock terminals on TH35 rails.



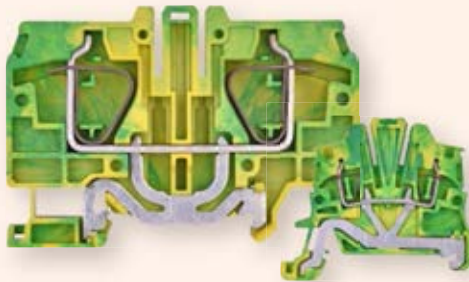
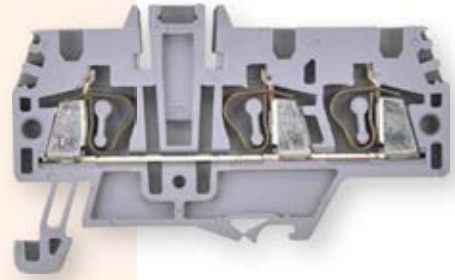
“Easy bridge” system: double possibility to insert PTC, PTP multi-pole cross-connections, without the need of insulating protection. Cross connections - bridges 2, 3 and 10 pole versions with insulation red or blue, or without isolation.



- Spring type terminal blocks ESP-HMM series for conductors with cross sections from 0,2 to 25 mm² in grey and blue color. Provide constant and permanent clamping pressure to electrical conductor, resistant to vibrations.

Line-up terminals

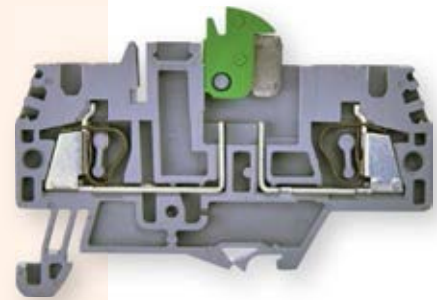
Feed through terminal blocks ESP-HMM/1+2, 1 input and 2 outputs, grey color. For conductors with cross sections from 0,2 to 4 mm² in grey color.



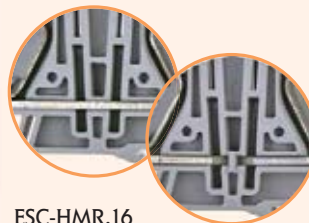
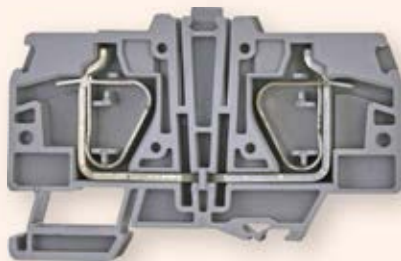
Earth terminal blocks ESP-HTE - Feed through terminal blocks, yellow-green. For conductors with cross sections from 0,2 to 25 mm² in green-yellow color.



Two and three level terminal blocks ESP2-HMD and ESP3-HLD. For conductors with cross sections from 0,2 to 2,5 mm² in grey color.



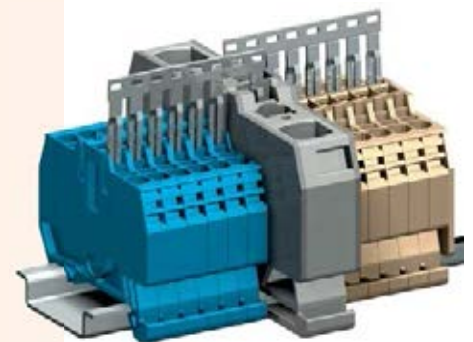
Disconnect terminal block ESP-HMS.2. For conductors with cross sections from 0,2 to 4 mm² in grey color.



ESC-HMR.16

ESC-HMR.16/D

Potential power distribution, grey color terminal blocks ESP-HMR.16 and ESP-HMR.16/D For conductors with cross sections from 1,5 to 25 mm² in grey color. We have single and double power supply version.



Example: double power supply version

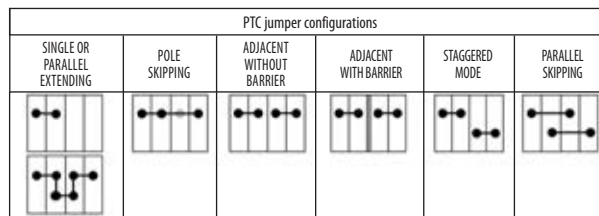


You have to remove second pole from Cross connections - bridges in order to use it with ESC-HMR, ESC-HMR/D.

Features

ESP-HMM Series

- with UL94V-0 polyamide insulating body
- mounting onto rails according to IEC 60715 Std., "TH/35" type
- • available in standard grey RAL 7042 colour and blue RAL 5015 colour version



Terminal block	Jumper	Insulation voltage in the above configurations (V)					
ESP-HMM.1	-	630	630	320	630	630	
ESP-HMM.2	-	630	630	320	630	630	
ESP-HMM.4	ESC-PTC/5	500	500	500	500	500	
ESP-HMM.6	ESC-PTC/8	500	500	500	500	500	
ESP-HMM.10	ESC-PTC/11	1000	1000	800	1000	800	
ESP-HMM.16	ESC-PTC/16	1000	1000	800	1000	800	

Technical data for ESP-HMM Series - grey and blue

	ESP-HMM.1(B)	ESP-HMM.2(B)	ESP-HMM.4(B)	ESP-HMM.6(B)	ESP-HMM.10(B)	ESP-HMM.16(B)	
TECHNICAL CHARACTERISTICS							
function / type	feed-through	feed-through	feed-through	feed-through	feed-through	feed-through	
rated cross-section (mm ²)	1,5	2,5	4	6	10	16	
connecting capacity:							
flexible(mm ²)	0,2 ÷ 2,5	0,2 ÷ 4	0,2 ÷ 6	0,2 ÷ 10	1,5 ÷ 16	1,5 ÷ 25	
rigid(mm ²)	0,2 ÷ 2,5	0,2 ÷ 4	0,2 ÷ 6	0,2 ÷ 10	1,5 ÷ 16	1,5 ÷ 25	
max. flexible with ferrule (mm ²)-ferrule type	1,5 - WP15/14	2,5 - WP25/14	4 - WP40/16	6 - WP60/20	10 - WP100/21	16 - WP160/22	
rated voltage / rated current / gauge conf. to IEC 60947-7-1	500 V / 17,5 A / B2	800 V / 24 A / A3	800 V / 32 A / A4	800 V / 41 A / A5	1000 V / 57 A / A6	1000 V / 76 A / A7	
rated voltage / rated current / AWG / tightening torque value UL	600 V / 15 A / 26-14 AWG	600 V / 20 A / 24-12 AWG	600 V / 30 A / 24-10 AWG	600 V / 41 A / 24-8 AWG	-	-	
rated impulse withstand voltage / pollution degree	8 KV / 3	8 KV / 3	8 KV / 3	8 KV / 3	12 KV / 3	12 KV / 3	
insulation stripping length (mm)	10	10	12	13	13	13	
height / width / thickness	TH/35 7,5 mm	43 / 45 / 4,2	41 / 50 / 5,2	45 / 58 / 6,2	44 / 62 / 8,2	53 / 71 / 10	56 / 80 / 12
height / width / thickness	TH/35 15 mm	51 / 45 / 4,2	49 / 50 / 5,2	52 / 58 / 6,2	52 / 62 / 8,2	61 / 71 / 10	64 / 80 / 12
Marking tag printed or blank	ESP-SHZ/1	ES-NU0851	ES-NU08/61	ES-NU0851	ES-NU0851	ES-NU0851	

Technical data

Technical data for ESP-HMM.x/1+2 series			
		ESP-HMM.2/1+2	ESP-HMM.4/1+2
TECHNICAL CHARACTERISTICS			
function / type		feed-through, 1 input and 2 outputs	feed-through, 1 input and 2 outputs
rated cross-section	(mm ²)	2,5	4
connecting capacity:			
flexible	(mm ²)	0.2–4	0.2–6
rigid	(mm ²)	0.2–4	0.2–6
max. flexible with ferrule	(mm ²)	2,5	4
rated voltage / rated current / gauge conf. to IEC 60947-7-1		800 V / 24 A / A3	800 V / 32 A / A4
rated voltage / rated current / AWG / tightening torque value UL		600 V / 20 A / 24-12 AWG	-
rated impulse withstand voltage / pollution degree		8 KV / 3	8 KV / 3
insulation stripping length	(mm)	10	12
height / width / thickness	TH/35 7,5 mm	76 / 69 / 8	77 / 69 / 8
height / width / thickness	TH/35 15 mm	84 / 69 / 8	85 / 69 / 8
ACCESSORIES			
End section		ESP-HMT.2/1+2/PT	ESP-HMT.4/1+2/PT
Rated current carrying capacity of jumper	(A)	24	32
Marking tag	printed or blank	ES-NU0851	ES-NU0851
End bracket		ES-BTO, ES-BT/3	ES-BTO, ES-BT/3

ESP-HMM.x/1+2 series feed through terminal blocks, 1 input and 2 outputs, grey color

- UL94V-0
- mounting onto PR/3 type rails according to IEC 60715
- standard, TH/35 type
- available in the standard version (grey)
- maximum operating temperature 100 °C
- certificate of operating temperature: -40 – +80 °C
- CoC IECEx INE 16.0032U

Cross connections Easy Bridge System

- screwless, snap-in insertion
- transversal and staggered mode connection possibility
- once inserted, intrinsically IPXXB protected resulting installation, without the need for further insulating covers
- patented system



1



2



3

- 1-2 After having cut the bar according to the number of poles, insert the cross-connection, in the appropriate groove of the terminal block. At this point, by using the blade of a screwdriver, push down the cross-connection until it reaches its blocking point. The cross connection will be fully insulated and intrinsically IPXXB protected.
- 3 To remove the cross-connection, insert the blade of the screwdriver in the jumper slot, then lift it up and finally extract it.

Terminal block	2-pole jumper	3-pole jumper	10-pole jumper
ESP-HMM.1(**)	ESP-PTC/1/02	ESP-PTC/1/03	ESP-PTC/1/10
ESP2-HMD.1	ESP-PTC/1/02	ESP-PTC/1/03	ESP-PTC/1/10
ESP-HMM.6	ESP-PTC/8/02		ESP-PTC/8/10
ESP-HMM.10	ESP-PTC/11/02		ESP-PTC/11/10
ESP-HMM.16	ESP-PTC/16/02		ESP-PTC/16/10

Insulated cross connection		
Nr. Poles	PTP Series - Blue	PTP Series - Red
2	ESP-PTP/3/02/B	ESP-PTP/3/02/R
3	ESP-PTP/3/03/B	ESP-PTP/3/03/R
10	ESP-PTP/3/10/B	ESP-PTP/3/10/R
2	ESP-PTP/5/02/B	ESP-PTP/5/02/R
3	ESP-PTP/5/03/B	ESP-PTP/5/03/R
10	ESP-PTP/5/10/B	ESP-PTP/5/10/R

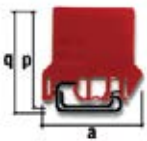
ESP-PT end sections

For each type and cross section of terminal block, there is a specific insulating and closing end section to be placed on the open element of each terminal board. This end section may also be used to separate different phases of adjoining terminal blocks linked by cross connections or to increase insulation distances where specific circumstances may require it. The end sections have the same overall dimension as the related terminal block, thicknesses are given in the table below.

Terminal block	End section	
	Type	Thickness [mm]
ESP3-HLD.2	ESP3-HLD.2/PT	1,5
ESP-HMM.1	ESP-HMT.1/PT	1,5
ESP-HMM.2	ESP-HMT.2/PT	1,5
ESP-HMM.4	ESP-HMT.4/PT	1,5
ESP2-HMD.1	ESP2-HMD.1/PT	1,5
ESP2-HMD.2N	ESP2-HMD.1/PT	1,5
ESP-HMM.6	ESP-HMT.6/PT	1,5
ESP-HTE.1	ESP-HMT.1/PT	1,5
ESP-HTE.2	ESP-HMT.2/PT	1,5
ESP-HTE.4	ESP-HMT.4/PT	1,5
ESP-HTE.6	ESP-HMT.6/PT	1,5
ESP-HTE.10	ESP-HMT.10/PT	1,5
ESP-HTE.16	ESP-HMT.16/PT	1,5
ESP-HMM.1B	ESP-HMT.1/PT B	1,5
ESP-HMM.2B	ESP-HMT.2/PT B	1,5
ESP-HMM.4 B	ESP-HMT.4/PT B	1,5
ESP-HMM.6 B	ESP-HMT.6/PT B	1,5
ESP-HMM.10	ESP-HMT.10/PT	1,5
ESP-HMM.16	ESP-HMT.16/PT	1,5
ESP-HMM.10B	ESP-HMT.10/PTB	1,5
ESP-HMM.16B	ESP-HMT.16/PTB	1,5

ESP-DFH partitions

In polyamide available in red, colour, 1.5 mm thick, for the separation of elements on the terminal board, in order to make certain circuits easy to locate or to increase the insulation distances between terminal blocks. The partitions can also be used to increase the insulation distances between adjacent parallel multiple commoning bars. White and green partitions available while stocks last.

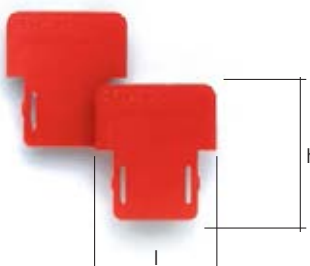


NOTE:
q dimension can be obtained by adding 4 mm to dimension p

Partition	Dimensions a x p
ESP-DFH/4	97 x 51,5
ESP-DFH/1	64 x 42,5

ESP-DFM partition insulation of cross connections - bridges

Red coloured in polyamide when it is necessary to guarantee the insulation distance between permanent or switchable cross connections, inserted between adjacent pairs of terminal blocks and, similarly, between multiple commoning bars, inserted between adjacent groups of terminal blocks.



Partition	Dimensions l x h [mm]	Thickness [mm]
ESP-DFM/500	4,6 x 13,5	0,5



Technical data

Features

Earth terminal blocks ESP-HTE Series

- with UL94V-0 polyamide insulating body
- mounting onto rails according to IEC 60715 Std., "TH/35" type
- for earth connection with yellow and green insulating body

Technical data for ESP-HTE Series



	ESP-HTE.1	ESP-HTE.2	ESP-HTE.4	ESP-HTE.6	ESP-HTE.10	ESP-HTE.16
TECHNICAL CHARACTERISTICS						
function / type	earth	earth	earth	earth	earth	earth
rated cross-section (mm ²)	1,5	2,5	4	6	10	16
connecting capacity:						
flexible(mm ²)	0,2 ÷ 2,5	0,2 ÷ 4	0,2 ÷ 6	0,2 ÷ 10	1,5 ÷ 16	1,5 ÷ 25
rigid(mm ²)	0,2 ÷ 2,5	0,2 ÷ 4	0,2 ÷ 6	0,2 ÷ 10	1,5 ÷ 16	1,5 ÷ 25
max. flexible with ferrule (mm ²)-ferrule type	1,5 - WP15/14	2,5 - WP25/14	4 - WP40/16	6 - WP60/20	10 - WP100/21	16 - WP160/22
rated voltage / rated current / gauge conf. to IEC 60947-7-1	- / - / B2	- / - / A3	- / - / A4	- / - / A5	- / - / A6	- / - / A7
rated voltage / rated current / AWG UL	- / - / 26-14 AWG	- / - / 24-12 AWG	- / - / 24-10 AWG	- / - / 24-8 AWG	-	-
rated impulse withstand voltage / pollution degree	8 KV / 3	8 KV / 3	8 KV / 3	8 KV / 3	12 KV / 3	12 KV / 3
insulation stripping length (mm)	10	10	12	13	13	13
height / width / thickness 	43 / 50 / 4,2	41 / 54 / 5,2	45 / 58 / 6,2	44 / 62 / 8,2	53 / 71 / 10	56 / 80 / 12
height / width / thickness 	51 / 50 / 4,2	49 / 54 / 5,2	52 / 58 / 6,2	52 / 62 / 8,2	61 / 70 / 10	64 / 80 / 12
Marking tag printed or blank	ESP-SHZ/1, ESP-SH004S	ES-NU0851	ES-NU08/61	ES-NU0851	ES-NU0851	ES-NU0851

Features

Two level terminal blocks ESP2-HMD

- with UL94V-0 polyamide insulating body
- mounting onto rails according to IEC 60715 Std., "TH/35" type
- double possibility of PTC – "Easy Bridge" multi-pole cross connection, on each level
- available in standard grey RAL 7042 colour

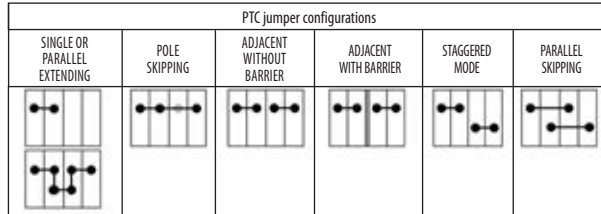
Technical data for ESP-HMD

	ESP2-HMD.1	ESP2-HMD.2N
TECHNICAL CHARACTERISTICS		
function / type	two-level feed-through	two-level feed-through
rated cross-section (mm ²)	1,5	2,5
connecting capacity:		
flexible(mm ²)	0,2 ÷ 2,5	0,2 ÷ 2,5
rigid(mm ²)	0,2 ÷ 2,5	0,2 ÷ 2,5
max. flexible with ferrule (mm ²)-ferrule type	1,5 - WP15/14	1,5 - WP15/14
rated voltage / rated current / gauge conf. to IEC 60947-7-1	500 V / 17,5 A / B2	630 V / 24 A / B2
rated voltage / rated current / AWG UL	600 V / 15 A / 26-14 AWG	600 V / 15 A / 26-14 AWG
rated impulse withstand voltage / pollution degree	6 KV / 3	8 KV / 3
insulation stripping length (mm)	10	10
height / width / thickness 	59 / 73 / 4,2	59 / 73 / 5,2
height / width / thickness 	67 / 73 / 4,2	67 / 73 / 5,2
Marking tag printed or blank	ESP-SHZ/1, ESP-SH004S	ES-NU0851

Features

Three level terminal blocks ESP3-HLD

- Mounting onto rails, according to IEC 60715 Std.
- Three feed-through levels
- Available in grey (RAL 7042) colour
- “Easy bridge” jumpering system: double insertion possibility of PTC multi-pole cross-connections, without the need of an insulating protection
- Coupling possibility with each others



Insulation voltage in the above configurations (V)					
upper level	500	500		500	500
intermediate level	500	500		500	
lower level	500	500		500	

Technical data for ESP-HLD		ESP3-HLD.2
TECHNICAL CHARACTERISTICS		
function / type		Three feed-through levels
rated cross-section (mm ²)		2,5
connecting capacity:		
flexible(mm ²)		0,2 ÷ 2,5
rigid(mm ²)		0,2 ÷ 2,5
max. flexible with ferrule (mm ²)-ferrule type		1,5 - WP15/14
rated voltage / rated current / gauge conf. to IEC 60947-7-1		500 V / 24 A / B2
rated voltage / rated current / AWG UL		-
rated impulse withstand voltage / pollution degree		8 KV / 3
insulation stripping length (mm)		10
height / width / thickness	TH/35 7,5 mm	75 / 95 / 5,2
height / width / thickness	TH/35 15 mm	83 / 95 / 5,2
Marking tag	printed or blank	ES-NU0851

ESP-HMM.x/1+2 series feed through terminal blocks, 1 input and 2 outputs, grey color

- UL94V-0
- mounting onto PR/3 type rails according to IEC 60715
- standard, TH/35 type
- available in the standard version (grey)
- maximum operating temperature 100 °C
- certificate of operating temperature: -40 – +80 °C
- CoC IECEx INE 16.0032U

Technical data for ESP-HMM.x/1+2 series			
		ESP-HMM.2/1+2	ESP-HMM.4/1+2
TECHNICAL CHARACTERISTICS			
function / type		feed-through, 1 input and 2 outputs	feed-through, 1 input and 2 outputs
rated cross-section	(mm ²)	2,5	4
connecting capacity:			
flexible	(mm ²)	0,2–4	0,2–6
rigid	(mm ²)	0,2–4	0,2–6
max. flexible with ferrule	(mm ²)	2,5	4
rated voltage / rated current / gauge conf. to IEC 60947-7-1		800 V / 24 A / A3	800 V / 32 A / A4
rated voltage / rated current / AWG / tightening torque value UL		600 V / 20 A / 24-12 AWG	-
rated impulse withstand voltage / pollution degree		8 KV / 3	8 KV / 3
insulation stripping length	(mm)	10	12
height / width / thickness	TH/35 7,5 mm	76 / 69 / 8	77 / 69 / 8
height / width / thickness	TH/35 15 mm	84 / 69 / 8	85 / 69 / 8
ACCESSORIES			
End section		ESP-HMT.2/1+2/PT	ESP-HMT.4/1+2/PT
Rated current carrying capacity of jumper	(A)	24	32
Marking tag	printed or blank	ES-NU0851	ES-NU0851
End bracket		ES-BTO, ES-BT/3	ES-BTO, ES-BT/3

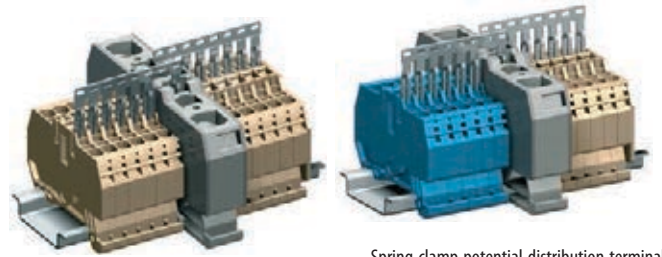
Features
Disconnect terminal blocks ESP-HMS

- with UL94V-0 polyamide insulating body
- disconnect by lever and by slide link
- for test and measurement circuits
- mounting onto rails according to IEC 60715 Std., "TH/35" type
- available in standard grey RAL 7042 colour

Technical data for ESP-HMS		
		ESP-HMS.2
TECHNICAL CHARACTERISTICS		
function / type		disconnect by lever
rated cross-section	(mm ²)	2,5
connecting capacity:		
flexible(mm ²)		0,2 ÷ 4
rigid(mm ²)		0,2 ÷ 4
max. flexible with ferrule (mm ²)-ferrule type		2,5 - WP25/14
rated voltage / rated current / gauge conf. to IEC 60947-7-1		400 V / 16 A / A3
rated voltage / rated current / AWG UL		600 V / 24 A / 24-12 AWG
rated impulse withstand voltage / pollution degree		6 KV / 3
insulation stripping length	(mm)	10
height / width / thickness	TH/35 7,5 mm	37 / 66 / 5,2
height / width / thickness	TH/35 15 mm	45 / 66 / 5,2
ACCESSORIES		
End sections	grey	ESP-HMT.2/1+2/PT
Permanent cross connection (intrinsically IPXXB protected once mounted)		ESP-PTC/03/02 poles
		ESP-PTC/03/03 poles
		ESP-PTC/03/10 poles
Rated current carrying capacity of jumper	(A)	24
Marking tag	printed or blank	ES-NU0851
End bracket		ES-BTO

Features

- Potential distribution terminal blocks ESP-HMR
 - with UL94V-0 polyamide insulating body
 - 16 mm²
 - mounting onto rails according to IEC 60715 Std., "TH/35" type
 - • available in grey RAL 7042 colour
 - • can be connected with ESP-HMM.2



Spring clamp potential distribution terminal block, single power supply

Spring clamp potential distribution terminal block, double power supply

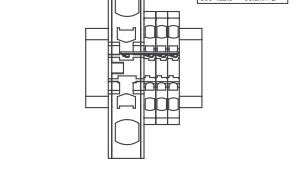
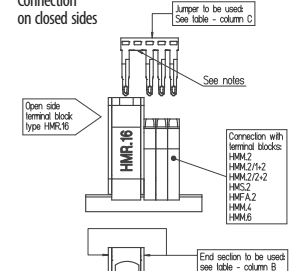
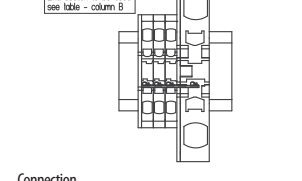
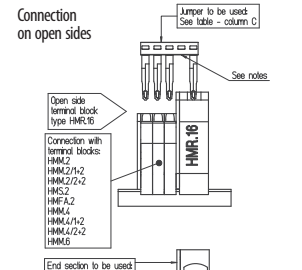
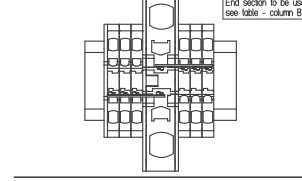
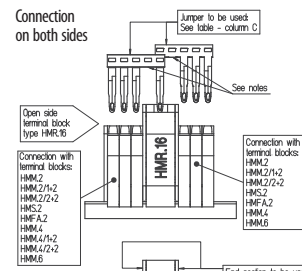
Technical data for ESP-HMR

		ESP-HMR.16, ESP-HMR.16/D
TECHNICAL CHARACTERISTICS		
function / type		potential distributor
rated cross-section (mm ²)		16
connecting capacity:		
flexible(mm ²)		1,5 ÷ 25
rigid(mm ²)		1,5 ÷ 25
max. flexible with ferrule (mm ²)-ferrule type		16 - WP160/22
rated voltage / rated current / gauge acc. to IEC 60947-7-1		800 V / 76 A (*) / A7
rated voltage / rated current / AWG UL		-
rated impulse withstand voltage / pollution degree		12 KV / 3
insulation stripping length (mm)		18
height / width / thickness	TH/35 7,5 mm	50 / 80 / 12,8
height / width / thickness	TH/35 15 mm	57 / 80 / 12,8
ACCESSORIES		
End sections	grey	see table
Permanent cross connection		see table
Rated current carrying capacity of jumper	(A)	see table
Coloured partition	red	ESP-DFH/4
Marking tag	printed or blank	ES-NU0851

NOTES:
 The number of poles to be used shall be equal to the number of terminal blocks to be connected, including the distribution terminal block + 1
 To allow the connection to the distribution terminal block the second pin of the PTC jumper shall be trimmed off
 *Connectable only on the open side of the distribution terminal block



Connection



Terminal block connected to supply terminal	End sections	Permanent cross connection (**)	
		Type	Total capacity
ESP-HMM.2	ESP-HMR.16-2/PT	ESP-PTP0303 ESP-PTP0310	24 A
ESP-HMM.4	ESP-HMR.16-4/PT	ESP-PTP0503 ESP-PTP0510	32 A
ESP-HMM.6	ESP-HMR.16-6/PT	ESP-PTC/08/10 poles	41 A

(**) In order to enable the connection to the supply terminal the second pin must be always removed from the strip of the PTC jumper.

The number of poles of the PTC jumper must be equal to the number of terminal blocks to be cross-connected plus 1