

M12 and M8 Series Distribution Blocks



Overview

Single-wire connectivity in machines and installations is troublesome and error-prone. Murrelektronik's passive distribution boxes provide a much more convenient method for connecting sensors and actuators to the control cabinet. Murrelektronik supplies a comprehensive range of distribution boxes. They create optimum installations for any application and are cost-effective, reliable, and space saving solutions!

Features

- 30mm wide footprint saves space and offers flexible mounting options
- Integrated LED indicators make troubleshooting easy
- Over molded bodies for vibration and environmental protection
- Available with Integrated cable or M12 12-pin Homerun cabling option
- Marking tags Included

Distribution Block Specifications

Distribution Block Specifications	
Electrical Specifications	
Voltage Rating	24 VDC
Voltage Range	18–30.2 VDC
Technical Specifications	
Approvals *	UL file E201820, CE
Degree of Protection	IP67
Material Specifications	
Body	Thermoplastic Polyurethane (TPU) clear and Polyamide (PA) UL 94 HB, Black
Contact Carrier M8	Polyamide (PA), UL94 HB, Green
Contact Carrier M12	Polyamide (PA) UL94 HB, Black
Contacts	Gold-plated
Gasket	Thermoplastic Polyurethane (TPU) clear
Connector housing M12 (12-pin M12 Quick-Disconnect)	Nickel-plated (CuZn)
Backside Gasket (8000-88590)	O-ring NBR
LED Lens	Thermoplastic Polyurethane (TPU), clear
LED Indicator Color	Power - Green, Signal 1- Yellow, Signal 2 - White
Marking Tags	Soft PVC

*To obtain the most current agency approval information, see the Agency Compliance & Certifications Checklist section on the specific part number's web page.

M12 and M8 Series Distribution Blocks



Exact 12 Series



Exact 8 Series

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Part Number	Price	Ports	LED Indicator	Socket Type	I/O per Socket	Socket Current	Load Current	Number of Commons	Operating Temperature
Exact 12									
8000-84560-0000000	\$100.00	4	PNP	5-pin M12	2	1A	–	1	-20 to 60°C [-4 to 140°F]
8000-88460-0000000	\$119.00	8	PNP	5-pin M12	1	1A	–	1	-20 to 60°C [-4 to 140°F]
8000-88590-0000000	\$119.00	8	PNP	5-pin M12	2	4A	8A/common	2	-30 to 70°C [-22 to 158°F]
Exact 8									
8000-84010-3370500	\$86.00	4	PNP	3-pin M8	1	2A	8A/common	1	-20 to 72°C [-4 to 162°F]
8000-84011-3370500	\$86.00	4	NPN	3-pin M8	1	2A	8A/common	1	-20 to 72°C [-4 to 162°F]
8000-84060-0000000	\$91.00	4	PNP	3-pin M8	1	1A	–	1	-20 to 57°C [-4 to 135°F]
8000-84110-3580500	\$111.00	4	PNP	4-pin M8	2	2A	8A/common	1	-20 to 72°C [-4 to 162°F]
8000-84111-3580500	\$111.00	4	NPN	4-pin M8	2	2A	8A/common	1	-20 to 72°C [-4 to 162°F]
8000-84160-0000000	\$96.00	4	PNP	4-pin M8	2	1A	–	1	-20 to 57°C [-4 to 135°F]
8000-88010-3570500	\$111.00	8	PNP	3-pin M8	1	2A	8A/common	1	-20 to 72°C [-4 to 162°F]
8000-88011-3570500	\$111.00	8	NPN	3-pin M8	1	2A	8A/common	1	-20 to 72°C [-4 to 162°F]
8000-88060-0000000	\$103.00	8	PNP	3-pin M8	1	1A	–	1	-20 to 57°C [-4 to 135°F]
8000-88110-3950500	\$147.00	8	PNP	4-pin M8	2	2A	8A/common	1	-20 to 72°C [-4 to 162°F]
8000-88111-3950500	\$147.00	8	NPN	4-pin M8	2	2A	8A/common	1	-20 to 72°C [-4 to 162°F]

M12 and M8 Series Distribution Blocks					
Part Number	Wiring	Pin Out Table	Main Connection Type	Recommended Cables	Drawing Link
Exact 12					
8000-84560-0000000	Diagram 1	Table 1	M12	7000-19041-705xxxx, 7000-19061-705xxxx	PDF
8000-88460-0000000	Diagram 2	Table 2	M12	7000-19041-705xxxx, 7000-19061-705xxxx	PDF
8000-88590-0000000	Diagram 1	Table 3	M12	–	PDF
Exact 8					
8000-84010-3370500	Diagram 3	Table 4	M8	–	PDF
8000-84011-3370500	Diagram 5	Table 4	M8	–	PDF
8000-84060-0000000	Diagram 3	Table 5	M8	7000-19041-705xxxx, 7000-19061-705xxxx	PDF
8000-84110-3580500	Diagram 4	Table 6	M8	–	PDF
8000-84111-3580500	Diagram 6	Table 6	M8	–	PDF
8000-84160-0000000	Diagram 4	Table 7	M8	7000-19041-705xxxx, 7000-19061-705xxxx	PDF
8000-88010-3570500	Diagram 3	Table 8	M8	–	PDF
8000-88011-3570500	Diagram 5	Table 8	M8	–	PDF
8000-88060-0000000	Diagram 3	Table 9	M8	7000-19041-705xxxx, 7000-19061-705xxxx	PDF
8000-88110-3950500	Diagram 4	Table 10	M8	–	PDF
8000-88111-3950500	Diagram 6	Table 10	M8	–	PDF

M12 and M8 Series Distribution Blocks

Pin Out Tables

Pin Out Table 1		
M12 Male 12-pole plug M12, 4 port, 5-pin		
M12-Male pin	Function	
1	+V, Port 1-4, Pin 1	Brown
2	-V, Port 1-4, Pin 3	Blue
3	Port 1 Pin 4	White
5	Port 1 Pin 2	Pink
4	Port 2 Pin 4	Green
9	Port 2 Pin 2	Red
6	Port 3 Pin 4	Yellow
7	Port 3 Pin 2	Black
8	Port 4 Pin 4	Gray
10	Port 4 Pin 2	Violet
Thread M12	PE, Port 1-4, Pin 5	

Pin Out Table 4		
M8, 4 Port, 3-pin		
Function	Cable O.D. 6.9 mm	
+V, Port 1-4, Pin 1	Brown	
-V, Port 1-4, Pin 3	Blue	
Port 1 Pin 4	White	
Port 2 Pin 4	Green	
Port 3 Pin 4	Yellow	
Port 4 Pin 4	Gray	

Pin Out Table 6		
Pre-wired cable, 5m M8, 4 port, 4-pin		
Function	Cable O.D. 8.6 mm	
+V, Port 1-4, Pin 1	Brown	
-V, Port 1-4, Pin 3	Blue	
Port 1 Pin 4	White	
Port 1 Pin 2	Gray Pink	
Port 2 Pin 4	Green	
Port 2 Pin 2	Red Blue	
Port 3 Pin 4	Yellow	
Port 3 Pin 2	White Green	
Port 4 Pin 4	Gray	
Port 4 Pin 2	Brown Green	

Pin Out Table 8		
Pre-wired cable, 5m M8, 8 port, 3-pin		
Function	Cable O.D. 8.6 mm	
+V, Port 1-8, Pin 1	Brown	
-V, Port 1-8, Pin 3	Blue	
Port 1 Pin 4	White	
Port 2 Pin 4	Green	
Port 3 Pin 4	Yellow	
Port 4 Pin 4	Gray	
Port 5 Pin 4	Pink	
Port 6 Pin 4	Red	
Port 7 Pin 4	Black	
Port 8 Pin 4	Violet	

Pin Out Table 2		
M12 Male 12-pole plug M12, 8 port, 4-pin		
M12-Male pin	Function	
1	+V, Port 1-8, Pin 1	Brown
2	-V, Port 1-8, Pin 3	Blue
3	Port 1 Pin 4	White
11	Port 1 Pin 2	Gray / Pink
4	Port 2 Pin 4	Green
12	Port 2 Pin 2	Red / Blue
6	Port 3 Pin 4	Yellow
8	Port 4 Pin 4	Gray
5	Port 5 Pin 4	Pink
9	Port 6 Pin 4	Red
7	Port 7 Pin 4	Black
10	Port 8 Pin 4	Violet
Thread M12	PE, Port 1-8, Pin 5	

Pin Out Table 5		
M12 Male 12-pole plug M8, 4 port, 3-pin		
M12-Male pin	Function	
1	+V, Port 1-4, Pin 1	Brown
2	-V, Port 1-4, Pin 3	Blue
3	Port 1 Pin 4	White
4	Port 2 Pin 4	Green
6	Port 3 Pin 4	Yellow
8	Port 4 Pin 4	Gray

Pin Out Table 7		
M12 Male 12-pole plug M12, 4 port, 5-pin		
M12-Male pin	Function	
1	+V, Port 1-4, Pin 1	Brown
2	-V, Port 1-4, Pin 3	Blue
3	Port 1 Pin 4	White
4	Port 2 Pin 4	Green
6	Port 3 Pin 4	Yellow
8	Port 4 Pin 4	Gray
5	Port 1 Pin 2	Pink
9	Port 2 Pin 2	Red
7	Port 3 Pin 2	Black
10	Port 4 Pin 2	Violet

Pin Out Table 9		
M12 Male, 12-pole plug M8, 8 port, 3-pin		
M12-Male pin	Function	
1	+V, Port 1-8, Pin 1	Brown
2	-V, Port 1-8, Pin 3	Blue
3	Port 1 Pin 4	White
4	Port 2 Pin 4	Green
6	Port 3 Pin 4	Yellow
8	Port 4 Pin 4	Gray
5	Port 5 Pin 4	Pink
9	Port 6 Pin 4	Red
7	Port 7 Pin 4	Black
10	Port 8 Pin 4	Violet

Pin Out Table 3	
Backside plug, removable spring terminals M12, 8 port, 5-pin	
Terminal	Function
+	+V, Port 1-8, Pin 1
+	
-	-V, Port 1-8, Pin 3
-	
Ground	PE, Port 1-8, Pin 5
1/4	Port 1 Pin 4
1/2	Port 1 Pin 2
2/4	Port 2 Pin 4
2/2	Port 2 Pin 2
3/4	Port 3 Pin 4
3/2	Port 3 Pin 2
4/4	Port 4 Pin 4
4/2	Port 4 Pin 2
5/4	Port 5 Pin 4
5/2	Port 5 Pin 2
6/4	Port 6 Pin 4
6/2	Port 6 Pin 2
7/4	Port 7 Pin 4
7/2	Port 7 Pin 2
8/4	Port 8 Pin 4
8/2	Port 8 Pin 2

Pin Out Table 10	
Pre-wired cable, 5m M8, 8 port, 4-pin	
Function	Cable O.D. 9.6 mm
+V, Port 1-8, Pin 1	Brown
-V, Port 1-8, Pin 3	Blue
Port 1 Pin 4	White
Port 1 Pin 2	Gray Pink
Port 2 Pin 4	Green
Port 2 Pin 2	Red Blue
Port 3 Pin 4	Yellow
Port 3 Pin 2	White Green
Port 4 Pin 4	Gray
Port 4 Pin 2	Brown Green
Port 5 Pin 4	Pink
Port 5 Pin 2	White Yellow
Port 6 Pin 4	Red
Port 6 Pin 2	Yellow Brown
Port 7 Pin 4	Black
Port 7 Pin 2	White Gray
Port 8 Pin 4	Violet
Port 8 Pin 2	Gray Green

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Wiring Diagrams

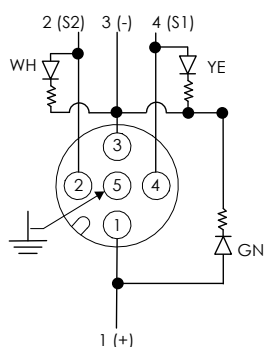


Diagram 1
(PNP field connection)
8000-84560-0000000
8000-88590-0000000

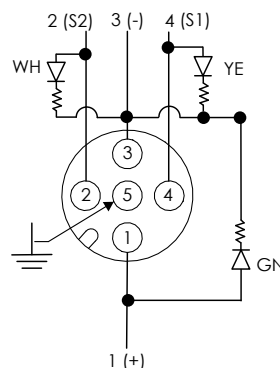


Diagram 2
(PNP field connection)
8000-88460-0000000

Note: Ports 1 and 2 have 2 signals S1 and S2
Ports 3 - 8 have signal S1 only

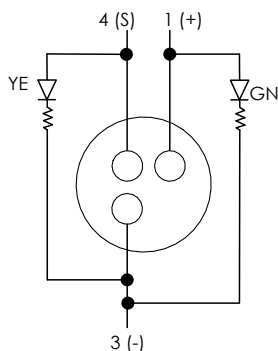


Diagram 3
(PNP field connection)
8000-84010-3370500
8000-88011-3570500
8000-84060-0000000
8000-88060-0000000

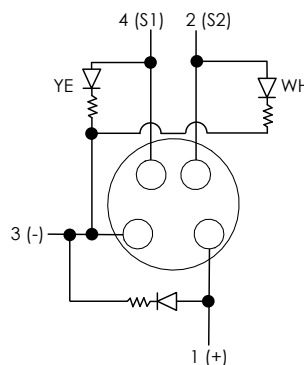


Diagram 4
(PNP field connection)
8000-84110-3580500
8000-88110-3950500
8000-84160-0000000

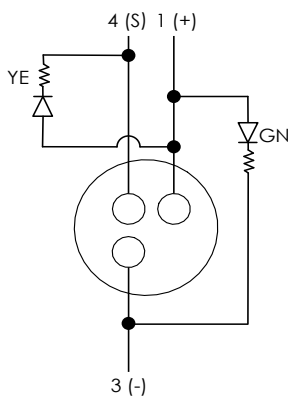


Diagram 5
(NPN field connection)
8000-84011-3370500
8000-88011-3570500

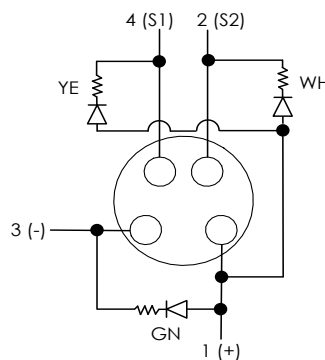


Diagram 6
(NPN field connection)
8000-84111-3580500
8000-88111-3950500