

MS4800

MiniSafe® Light Curtains

- Resolutions: 14 mm (0.55 in.), 20 mm (0.79 in.), 30 mm (1.18 in.), and 40 mm (1.57 in.)
- Ranges: 7 m (23 ft.) for 14 mm resolution systems; and 20 m (65 ft.) for 20, 30 and 40 mm resolution systems
- Protected Heights: 280 to 2120 mm (11 to 83.5 in.)
- Compact size: 50 x 38 mm (2 x 1.5 in.)
- “Two-box” design — no separate control box; no cable between transmitter and receiver
- Individual Beam Indicators
- Quick and easy fixed blanking programming option “SB1”
- Simple cascading models



Feature Set Comparison

The MS4800 light curtain family is an all-purpose light curtain available in three distinct versions. These versions are identified as the MS4800A, MS4800B and the MS4800S. The MS4800A and MS4800B feature set (configuration) can be changed through the use of an external device called the Programming Diagnostic Module (PDM) and on the MS4800S through selector switches.

Feature Set Comparison	MS4800A	MS4800B	MS4800S
Flex Bus, Multi-Segmented Head Configurations	■	■	■
Scan Code for Cross-Talk Mitigation	■*	■*	■
EDM External Device Monitoring (MPCE Monitoring)	■**	■**	■
PDM (Programming and Diagnostic Module)	■	■	
Adjustable Mounting Brackets and T-Slots	■	■	■
Non-Shielded Main Cables	■	■	■
2-Box Design	■	■	■
Two PNP Safety Outputs	■	■	■
Operating Modes	■*	■*	■
Machine Test Signal (MTS)	■*	■*	■
Auxiliary Output (PNP or NPN)	■*	■***	■****
Muting Through RM-6 Resource Module (only with MSF4800)	■*		■****
Floating Blanking	■*		■
Fixed Blanking	■*		■
Monitored Blanking	■*		
Reduced Resolution	■*		
Range Selection	■*	■*	■
Start Input Type	■*		
Response Time Adjustment	■*		

Note: The MS4800S can be configured with the quick fixed blanking programming option “SB1”.

*Configured via use of the Programming and Diagnostic Module (PDM)

**Configured via PDM and wiring configuration

***PNP/Follow only

****Simple two-sensor muting

Specifications

Performance	
Protected Height:	14 & 20 mm — 280 to 1800 mm (11.0 to 70.9 in.) 30 mm — 280 to 2120 mm (11.0 to 83.5 in.) 40 mm — 360 to 2040 mm (14.1 to 80.3 in.)
Object Resolution:	14, 20, 30 and 40 mm
Range:	14 mm Resolution — 0.3 to 7 m (1 to 23 ft.) default; 0.3 to 3 m (1 to 10 ft.) 20, 30 40 mm Resolutions — 0.3 to 20 m (1 to 65 ft.) default; 0.3 to 8 m (1 to 26 ft.)
Effective Aperture Angle:	±2.5° maximum, transmitter and receiver at operating range greater than 3 m (10 ft.) per IEC 61496-2
Safety Output:	Two 24 VDC PNP, each output sourcing 625 mA @ 24 VDC, short circuit protected (see Note 1)
Response Time:	See response time tables
Auxiliary (Non-Safety) Output:	MS4800A — One 24 VDC PNP sourcing 100 mA (follow mode) default, or one sinking NPN and alarm modes configured via PDM MS4800B and MS4800S — One PNP sourcing 100 mA (follow mode)
EDM Monitor:	50 mA @ 24 VDC (See Note 2)
Start/Restart Input (10 mA Consumption):	MS4800A — N.C. to 0 VDC default; N.O. and 24 VDC modes configured via PDM MS4800B and MS4800S — N.C. to 0 VDC only
Light Source:	Infrared light emitting diode, 880 nm
Transmitter Indicator Light:	Active (yellow)
Receiver Indicator Light:	Machine Run/Stop (green/red), Interlock/Alarm (yellow), Blanking (amber)
Electrical	
Power Input Transmitter:	24 VDC ±20% 285 mA max.
Power Input Receiver:	24 VDC ± 20%, 1.8 A max. (receiver 450 mA + OSSD1 625 mA max. + OSSD2 625 mA max. + auxiliary 100 mA max.)
Muting Option (RM-6):	24 VDC ± 20%, 115 mA max.
Power Supply:	Must meet requirements of IEC 60204-1 and IEC 61496; part number 42992 or equivalent (see Note 1)
Mechanical	
Construction:	Polyester powder painted aluminum
Cable Length:	Available in 10, 15 and 30 m (33, 49 and 99 ft.) lengths, unshielded
Wire Connections:	M12 connections; 8-pin receiver & 5-pin transmitter
Environmental	
Enclosure Rating:	IP65
Operating Temperature:	-10 to 55°C (14 to 131°F)
Storage Temperature:	-25 to 75°C (-13 to 167°F)
Relative Humidity:	95% maximum, non-condensing
Shock:	10 g for 0.016 seconds; 1,000 shocks for each of three axis
Approvals	
	ESPE Type 4 (IEC 61496-1/-2) Category 4 / PL e (EN ISO 13849-1) SIL3 / SIL3 CL3 (IEC 61508 / EN 62061) UL508, UL1998, CAN/CSA-C22.2 No. 14, CAN/CSA-C22.2 No. 0.8, CAN/CSA-C22.2 No 0, CAN/CSA-C22.2 No 205

Specifications are subject to change without notice.

Note 1: Total current required by two solid-state safety outputs and the auxiliary output should not exceed 1.35 A. Total system current requirements is the sum of transmitter (285 mA), receiver (450 mA), OSSD1 (625 mA), OSSD2 (625 mA) and Aux. Output (100 mA).

Note 2: 24 VDC is nominal. Actual voltage is dependant upon supply, $V = V_{supply} - 2 V$.

Response Time Tables

One Segment System

Response Time (ms)		Beam Count	
Normal	Slow*	Min.	Max.
14	23	12	16
23	38	17	71
32	53	72	126
41	68	127	180
50	83	181	235
59	99	236	256

Two Segment System

Response Time (ms)		Beam Count	
Normal	Slow*	Min.	Max.
23	38	24	65
32	53	66	120
41	68	121	174
50	83	175	229
59	99	230	256

Three Segment System

Response Time (ms)		Beam Count	
Normal	Slow*	Min.	Max.
23	38	36	59
32	53	60	114
41	68	115	168
50	83	169	223
59	99	224	256

Four Segment System

Response Time (ms)		Beam Count	
Normal	Slow*	Min.	Max.
23	38	48	53
32	53	54	108
41	68	109	162
50	83	163	217
59	99	218	256

*Response time adjustment is only available on the MS4800A.

PDM Functions

The PDM is used to program, configure and troubleshoot MS4800A and MS4800B systems.

A qualified person simply plugs the PDM cable into a mating connector on either the transmitter or receiver. The PDM draws power from the curtain and allows quick display of the light curtain's status for troubleshooting purposes.

After log-in, all configuration settings can be accessed and programmed.

The PDM has five function buttons that allow navigation through the set-up menus.

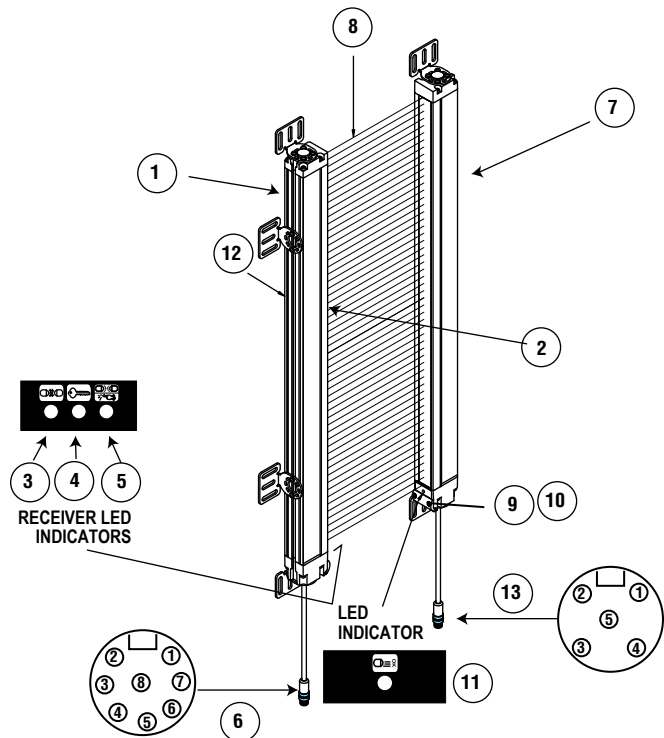


Programming Diagnostic Module (PDM)

Wiring

System Configuration

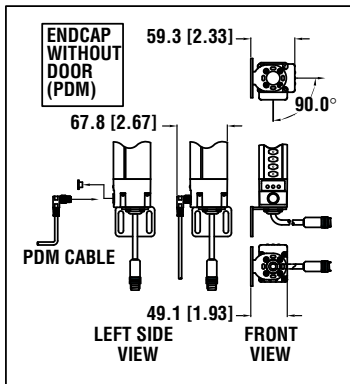
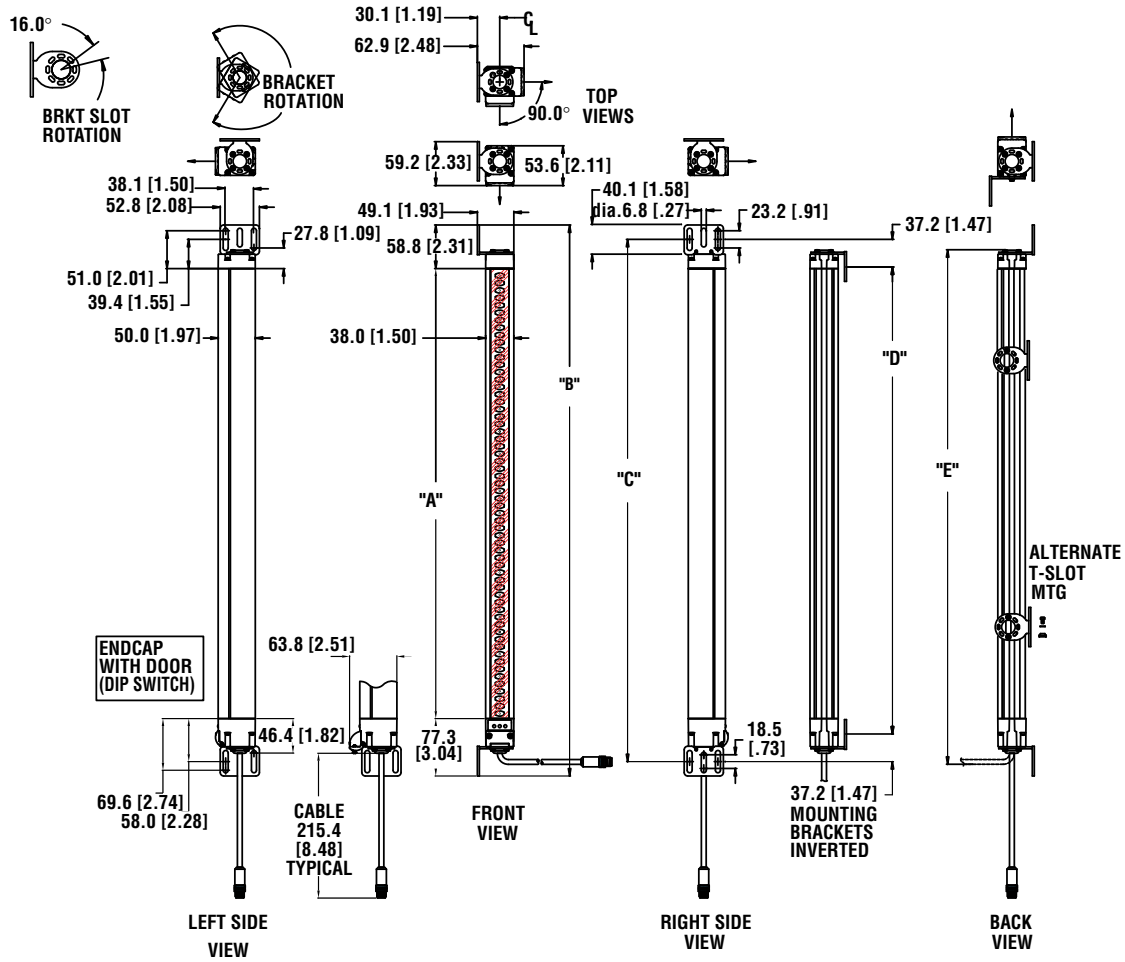
ID	Components & Indicators
1	Receiver
2	Individual Beam Indicators (one for each beam) — Red
3	Blanking Active — Amber
4	Interlock or Alarm Indicator — Yellow
5	Machine Run/Stop Indicator — Green/Red
6	Receiver Connections M-12
1	+24 VDC — Brown Wire
2	0 VDC — Blue Wire
3	Earth — Green Wire
4	OSSD 2 — White Wire
5	Start or EDM (Mode Select) — Yellow Wire
6	EDM — Red Wire
7	Auxiliary Output — Pink Wire
8	OSSD 1 — Black Wire
7	Transmitter
8	Detection Zone
9	Flip Door, Access to Configuration Switches (on both receiver and transmitter) — MS4800S version
10	Programming Port for PDM (on both receiver and transmitter) — MS4800A and MS4800B versions
11	Status Indicator — Yellow
12	Side Mounting T-Slot
13	Transmitter Connections M-12
1	0 VDC — Blue Wire
2	+24 VDC — Brown Wire
3	MTS — White Wire
4	MTS Return — Black Wire
5	Earth — Green Wire



Dimensions

(mm/in.)

MS4800



How to Calculate System Dimensions:

Example: MS4800S-30-0720

0720 represents a sensing field of 720 mm

- Dimension A = sensing field
- Dimension B = A + 136.0 mm
- Dimension C = A + 97.3 mm
- Dimension D = A + 22.9 mm
- Dimension E = A + 86.9 mm

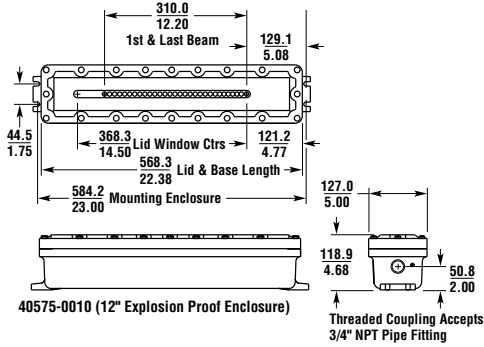
MS4800 Series	A (mm)	A (in)	MS4800 Series	A (mm)	A (in)	MS4800 Series	A (mm)	A (in)
MS48-X/R-0280	284.4	11.19	MS48-X/R-0920	922.5	36.32	MS48-X/R-1560	1563.3	61.55
MS48-X/R-0320	324.8	12.79	MS48-X/R-0960	963.6	37.94	MS48-X/R-1600	1600.9	63.03
MS48-X/R-0360	364.5	14.35	MS48-X/R-1000	1002.6	39.47	MS48-X/R-1640	1641.3	64.62
MS48-X/R-0400	404.2	15.91	MS48-X/R-1040	1042.9	41.06	MS48-X/R-1680	1683.1	66.26
MS48-X/R-0440	443.9	17.48	MS48-X/R-1080	1083.9	42.67	MS48-X/R-1720	1720.8	67.75
MS48-X/R-0480	484.3	19.07	MS48-X/R-1120	1122.3	44.19	MS48-X/R-1760	1760.5	69.31
MS48-X/R-0520	523.4	20.61	MS48-X/R-1160	1162.7	45.78	MS48-X/R-1800	1802.9	70.98
MS48-X/R-0560	563.7	22.19	MS48-X/R-1200	1203.8	47.39	MS48-X/R-1840	1840.6	72.46
MS48-X/R-0600	604.1	23.78	MS48-X/R-1240	1242.1	48.90	MS48-X/R-1880	1880.3	74.03
MS48-X/R-0640	643.9	25.35	MS48-X/R-1280	1281.8	50.47	MS48-X/R-1920	1922.8	75.70
MS48-X/R-0680	683.6	26.91	MS48-X/R-1320	1323.6	52.11	MS48-X/R-1960	1960.4	77.18
MS48-X/R-0720	724.0	28.50	MS48-X/R-1360	1362.0	53.62	MS48-X/R-2000	2000.1	78.75
MS48-X/R-0760	763.0	30.04	MS48-X/R-1400	1401.7	55.18	MS48-X/R-2040	2042.6	80.42
MS48-X/R-0800	803.5	31.63	MS48-X/R-1440	1443.4	56.83	MS48-X/R-2080	2079.6	81.87
MS48-X/R-0840	843.8	33.22	MS48-X/R-1480	1481.8	58.34	MS48-X/R-2120	2120.0	83.46
MS48-X/R-0880	882.8	34.76	MS48-X/R-1520	1521.5	59.90			

Dimensions (continued)

(mm/in.)

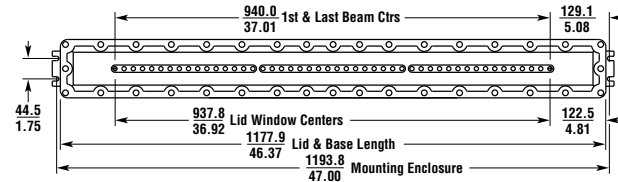
MS4800 Explosion-Proof Enclosures

MS4800-EPKT-0320
(Use with MS48-14/20/30/40-0320)



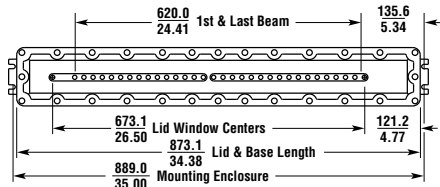
40575-0010 (12" Explosion Proof Enclosure)

MS4800-EPKT-0960
(Use with MS48-30-0960)



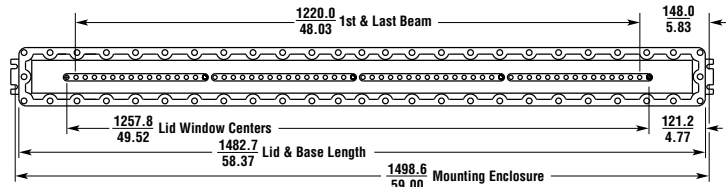
40575-0030 (36" Explosion Proof Enclosure)

MS4800-EPKT-0640
(Use with MS48-30-0640)



40575-0020 (24" Explosion Proof Enclosure)

MS4800-EPKT-1240
(Use with MS48-30-1240)



40575-0040 (48" Explosion Proof Enclosure)

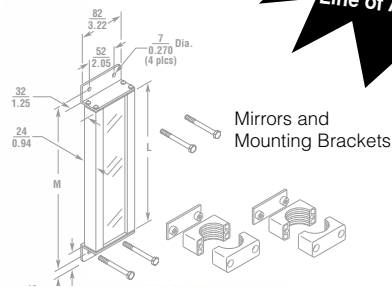
Additional Components to Complete Your System

To complete your system, we offer a complete range of accessories, including:

- Mirrors
- Shock Mount Kits
- Laser Alignment Tool
- Power Supplies
- Reset Switches
- Heavy Duty Floor Stands
- Light Duty Floor Stands
- Test Objects
- Weld Slag Protective Shields
- IP67 Enclosures



Floor Stands



Mirrors and Mounting Brackets

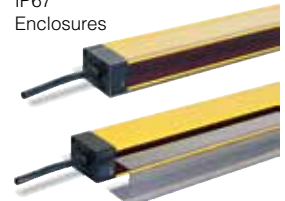


Reset Switches

IP67 Enclosures



Laser Alignment Tool



Weld Slag Protective Shields



Ordering

To order a MiniSafe MS4800 system, simply fill in the fields in the model number sequence given. Each field is numbered and information on completing a specific field can be found in the sections which follow.

No new kit configurations will be created after May 15, 2014. After May 15, new kit configurations will need to be ordered by the individual part numbers as per the De-configured Parts List examples. Individual model numbers for all parts are listed in the tables on the following pages. All pre-existing kits will continue to be available.

MS4800 Sequence:

___ - ___ - ___ - ___ X - ___ R - ___ - ___
 ① ② ③ ④ ④ ⑥ ⑦

Example: MS4800A-30-0600-10X-10R-RMX-P

This 4800 has: 30 mm resolution, 600 mm coverage height, 10 m transmitter and receiver cables, RM-X resource module, and a PDM module.

De-configured Parts List:

MS4800A-30-0600	RM-X
MS4800-CBLTX-10M	MS4800-PDM
MS4800-CBLRX-10M	

MSF4800 Sequence:

___ - ___ - ___ - ___ - ___ - ___ X - ___ R - ___ XI - ___ RI - ___ - ___
 ① ② ③ ② ③ ④ ④ ⑤ ⑤ ⑥ ⑦

Example: MSF4800A-20-0600-30-0440-10X-10R-010XI-030RI-RM610-P

This 4800 has: 20 mm resolution, 600 mm coverage height on 1st segment, 30 mm resolution, 440 mm coverage height on 2nd segment, 10 m transmitter and receiver cables, one 1 m and one 3 m interconnect cables, RM-6 muting module with 10 m cable, and a PDM module.

De-configured Parts List:

MSF4800A-20-0600	MS4800-CBLMT-10M
MSF4800-30-0440-XR2	MS4800-RM6
MS4800-CBLTX-10M	MS4800-PDM
MS4800-CBLRX-10M	
MS4800-CBLTXIC-01M	
MS4800-CBLRXIC-03M	

① Information required. Represents the system type.

② Information required. Represents the minimum object resolution of the system.

Designator	Description
MS4800A	Advanced, PDM configured
MS4800B	Basic, PDM configured
MS4800S	Standard, switch configured
MSF4800A	Advanced-Cascadable, PDM configured
MSF4800B	Basic-Cascadable, PDM configured
MSF4800S	Standard-Cascadable, switch configured

Designator	Minimum Object Resolution
14	14 mm (0.55 in.)
20	20 mm (0.79 in.)
30	30 mm (1.18 in.)
40	40 mm (1.57 in.)

Note 1: The MSF4800A and MSF4800S cascaded versions are required for use with RM-6 muting modules, a second segment is not required.

Note 2: MSF4800 cascaded versions are limited to a maximum of four segments or 256 beams. The interconnect cables are limited to 10 m between segments.

Ordering (continued)

③ Information required. Represents coverage heights of the light curtain in millimeters. Coverage heights available are a function of minimum object resolution. Designators are described below and divided into three sections, those for 12 & 14 mm resolutions, 30 mm resolutions, and 40 mm resolution.

14 mm & 20 mm Minimum Object Resolution Systems		
Designator	Coverage Height	No. of Beams
0240**	240 mm (9.4 in.)	24
0280	280 mm (11.0 in.)	28
0320	320 mm (12.6 in.)	32
0360	360 mm (14.1 in.)	36
0400	400 mm (15.7 in.)	40
0440	440 mm (17.3 in.)	44
0480	480 mm (18.9 in.)	48
0520	520 mm (20.5 in.)	52
0560	560 mm (22.0 in.)	56
0600	600 mm (23.6 in.)	60
0640	640 mm (25.2 in.)	64
0680	680 mm (26.8 in.)	68
0720	720 mm (28.3 in.)	72
0760	760 mm (29.9 in.)	76
0800	800 mm (31.5 in.)	80
0840	840 mm (33.0 in.)	84
0880	880 mm (34.6 in.)	88
0920	920 mm (36.2 in.)	92
0960	960 mm (37.8 in.)	96
1000	1000 mm (39.4 in.)	100
1040	1040 mm (40.9 in.)	104
1080	1080 mm (42.5 in.)	108
1120	1120 mm (44.1 in.)	112
1160	1160 mm (45.8 in.)	116
1200	1200 mm (47.2 in.)	120
1240	1240 mm (48.8 in.)	124
1280	1280 mm (50.4 in.)	128
1320*	1320 mm (52.0 in.)	132
1360*	1360 mm (53.5 in.)	136
1400*	1400 mm (55.1 in.)	140
1440*	1440 mm (56.7 in.)	144
1480*	1480 mm (58.3 in.)	148
1520*	1520 mm (59.8 in.)	152
1560*	1560 mm (61.4 in.)	156
1600*	1600 mm (63.0 in.)	160
1640*	1640 mm (64.6 in.)	164
1680*	1680 mm (66.1 in.)	168
1720*	1720 mm (67.7 in.)	172
1760*	1760 mm (69.3 in.)	176
1800*	1800 mm (70.9 in.)	180

*Not available for X2/R2 mid-segment configurations.
**Only available as an X2/R2 mid-segment.

30 mm Minimum Object Resolution Systems		
Designator	Coverage Height	No. of Beams
0240**	240 mm (9.4 in.)	12
0280	280 mm (11.0 in.)	14
0320	320 mm (12.6 in.)	16
0360	360 mm (14.1 in.)	18
0400	400 mm (15.7 in.)	20
0440	440 mm (17.3 in.)	22
0480	480 mm (18.9 in.)	24
0520	520 mm (20.5 in.)	26

0560	560 mm (22.0 in.)	28
0600	600 mm (23.6 in.)	30
0640	640 mm (25.2 in.)	32
0680	680 mm (26.8 in.)	34
0720	720 mm (28.3 in.)	36
0760	760 mm (29.9 in.)	38
0800	800 mm (31.5 in.)	40
0840	840 mm (33.0 in.)	42
0880	880 mm (34.6 in.)	44
0920	920 mm (36.2 in.)	46
0960	960 mm (37.8 in.)	48
1000	1000 mm (39.4 in.)	50
1040	1040 mm (40.9 in.)	52
1080	1080 mm (42.5 in.)	54
1120	1120 mm (44.1 in.)	56
1160	1160 mm (45.8 in.)	58
1200	1200 mm (47.2 in.)	60
1240	1240 mm (48.8 in.)	62
1280	1280 mm (50.4 in.)	64
1320	1320 mm (52.0 in.)	66
1360	1360 mm (53.5 in.)	68
1400	1400 mm (55.1 in.)	70
1440	1440 mm (56.7 in.)	72
1480	1480 mm (58.3 in.)	74
1520	1520 mm (59.8 in.)	76
1560	1560 mm (61.4 in.)	78
1600	1600 mm (63.0 in.)	80
1640	1640 mm (64.6 in.)	82
1680	1680 mm (66.1 in.)	84
1720	1720 mm (67.7 in.)	86
1760	1760 mm (69.3 in.)	88
1800	1800 mm (70.9 in.)	90
1840	1840 mm (72.4 in.)	92
1880	1880 mm (74.0 in.)	94
1920	1920 mm (75.6 in.)	96
1960	1960 mm (77.2 in.)	98
2000	2000 mm (78.7 in.)	100
2040	2040 mm (80.3 in.)	102
2080	2080 mm (81.9 in.)	104
2120	2120 mm (83.5 in.)	106

40 mm Minimum Object Resolution Systems		
Designator	Coverage Height	No. of Beams
0360	360 mm (14.1 in.)	12
0480	480 mm (18.9 in.)	16
0600	600 mm (23.6 in.)	20
0720	720 mm (28.3 in.)	24
0840	840 mm (33.0 in.)	28
0960	960 mm (37.8 in.)	32
1080	1080 mm (42.5 in.)	36
1200	1200 mm (47.2 in.)	40
1320	1320 mm (52.0 in.)	44
1440	1440 mm (56.7 in.)	48
1560	1560 mm (61.4 in.)	52
1680	1680 mm (66.1 in.)	56
1800	1800 mm (70.9 in.)	60
1920	1920 mm (75.6 in.)	64
2040	2040 mm (80.3 in.)	68

④ Information optional. Represents transmitter (X) and receiver (R) cable lengths. Cables can be shortened in the field.

Designator	Description
10	10 m (33 ft.)
15	15 m (49 ft.)
30	30 m (99 ft.)
(Blank)	No cables

⑤ Information optional. Represents transmitter and receiver interconnect cable length for MSF4800 systems. Each segment comes with a 6-inch "pigtail." If additional cable is needed, it can be ordered in the lengths given below. MSF4800 transmitters and receivers use identical quick-disconnect cables. Be sure to specify the length for each cable you need. For example, "-050XI-100RI" specifies one 5 m transmitter and one 10 m receiver interconnect cable.

Designator	Description
003	0.3 m (12 in.)
005	0.5 m (20 in.)
010	1 m (3.3 ft.)
020	2 m (6.6 ft.)
030	3 m (10 ft.)
050	5 m (16 ft.)
100	10 m (33 ft.)
(Blank)	No cables

⑥ Information optional. Indicates optional Quick fixed blanking option (only applicable to MS/MSF4800S versions).

Designator	Description
SB1	Quick fixed blanking option (for MS/MSF4800S only)
(Blank)	No option

⑦ Information optional. Indicates optional RM resource module. (Note: Multiple modules may be selected.)

Designator	Description
RMX	Include RM-X resource module
RM2A	Include RM-2AC resource module
RM2AP	Include RM-2AC-IP resource module
RM-2APB	Include RM-2AC-IP-SB1 resource module (for use with SB1 option)
RM610	Include RM-6 muting module and 10 m cable for MSF4800
RM615	Include RM-6 muting module and 15 m cable for MSF4800
RM630	Include RM-6 muting module and 30 m cable for MSF4800
P	Include PDM (Programming Diagnostic Module only for MS/MSF4800 A and B)
(Blank)	No RM series resource module

Ordering (continued)

Model Numbers

ADVANCED PDM (Programming Diagnostic Module) CONFIGURED

14 mm Object Resolution			20 mm Object Resolution			30 mm Object Resolution			40 mm Object Resolution		
Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)
MS4800A-14-0280	28	280 (11.0)	MS4800A-20-0280	28	280 (11.0)	MS4800A-30-0280	14	280 (11.0)	MS4800A-40-0360	12	360 (14.1)
MS4800A-14-0320	32	320 (12.6)	MS4800A-20-0320	32	320 (12.6)	MS4800A-30-0320	16	320 (12.6)	MS4800A-40-0480	16	480 (18.9)
MS4800A-14-0360	36	360 (14.1)	MS4800A-20-0360	36	360 (14.1)	MS4800A-30-0360	18	360 (14.1)	MS4800A-40-0600	20	600 (23.6)
MS4800A-14-0400	40	400 (15.7)	MS4800A-20-0400	40	400 (15.7)	MS4800A-30-0400	20	400 (15.7)	MS4800A-40-0720	24	720 (28.3)
MS4800A-14-0440	44	440 (17.3)	MS4800A-20-0440	44	440 (17.3)	MS4800A-30-0440	22	440 (17.3)	MS4800A-40-0840	28	840 (33.0)
MS4800A-14-0480	48	480 (18.9)	MS4800A-20-0480	48	480 (18.9)	MS4800A-30-0480	24	480 (18.9)	MS4800A-40-0960	32	960 (37.8)
MS4800A-14-0520	52	520 (20.5)	MS4800A-20-0520	52	520 (20.5)	MS4800A-30-0520	26	520 (20.5)	MS4800A-40-1080	36	1080 (42.5)
MS4800A-14-0560	56	560 (22.0)	MS4800A-20-0560	56	560 (22.0)	MS4800A-30-0560	28	560 (22.0)	MS4800A-40-1200	40	1200 (47.2)
MS4800A-14-0600	60	600 (23.6)	MS4800A-20-0600	60	600 (23.6)	MS4800A-30-0600	30	600 (23.6)	MS4800A-40-1320	44	1320 (52.0)
MS4800A-14-0640	64	640 (25.2)	MS4800A-20-0640	64	640 (25.2)	MS4800A-30-0640	32	640 (25.2)	MS4800A-40-1440	48	1440 (56.7)
MS4800A-14-0680	68	680 (26.8)	MS4800A-20-0680	68	680 (26.8)	MS4800A-30-0680	34	680 (26.8)	MS4800A-40-1560	52	1560 (61.4)
MS4800A-14-0720	72	720 (28.3)	MS4800A-20-0720	72	720 (28.3)	MS4800A-30-0720	36	720 (28.3)	MS4800A-40-1680	56	1680 (66.1)
MS4800A-14-0760	76	760 (29.9)	MS4800A-20-0760	76	760 (29.9)	MS4800A-30-0760	38	760 (29.9)	MS4800A-40-1800	60	1800 (70.9)
MS4800A-14-0800	80	800 (31.5)	MS4800A-20-0800	80	800 (31.5)	MS4800A-30-0800	40	800 (31.5)	MS4800A-40-1920	64	1920 (75.6)
MS4800A-14-0840	84	840 (33.0)	MS4800A-20-0840	84	840 (33.0)	MS4800A-30-0840	42	840 (33.0)	MS4800A-40-2040	68	2040 (80.3)
MS4800A-14-0880	88	880 (34.6)	MS4800A-20-0880	88	880 (34.6)	MS4800A-30-0880	44	880 (34.6)			
MS4800A-14-0920	92	920 (36.2)	MS4800A-20-0920	92	920 (36.2)	MS4800A-30-0920	46	920 (36.2)			
MS4800A-14-0960	96	960 (37.8)	MS4800A-20-0960	96	960 (37.8)	MS4800A-30-0960	48	960 (37.8)			
MS4800A-14-1000	100	1000 (39.4)	MS4800A-20-1000	100	1000 (39.4)	MS4800A-30-1000	50	1000 (39.4)			
MS4800A-14-1040	104	1040 (40.9)	MS4800A-20-1040	104	1040 (40.9)	MS4800A-30-1040	52	1040 (40.9)			
MS4800A-14-1080	108	1080 (42.5)	MS4800A-20-1080	108	1080 (42.5)	MS4800A-30-1080	54	1080 (42.5)			
MS4800A-14-1120	112	1120 (44.1)	MS4800A-20-1120	112	1120 (44.1)	MS4800A-30-1120	56	1120 (44.1)			
MS4800A-14-1160	116	1160 (45.8)	MS4800A-20-1160	116	1160 (45.8)	MS4800A-30-1160	58	1160 (45.8)			
MS4800A-14-1200	116	1200 (47.2)	MS4800A-20-1200	116	1200 (47.2)	MS4800A-30-1200	60	1200 (47.2)			
MS4800A-14-1240	120	1240 (48.8)	MS4800A-20-1240	120	1240 (48.8)	MS4800A-30-1240	62	1240 (48.8)			
MS4800A-14-1280	128	1280 (50.4)	MS4800A-20-1280	128	1280 (50.4)	MS4800A-30-1280	64	1280 (50.4)			
MS4800A-14-1320	132	1320 (52.0)	MS4800A-20-1320	132	1320 (52.0)	MS4800A-30-1320	66	1320 (52.0)			
MS4800A-14-1360	136	1360 (53.5)	MS4800A-20-1360	136	1360 (53.5)	MS4800A-30-1360	68	1360 (53.5)			
MS4800A-14-1400	140	1400 (55.1)	MS4800A-20-1400	140	1400 (55.1)	MS4800A-30-1400	70	1400 (55.1)			
MS4800A-14-1440	144	1440 (56.7)	MS4800A-20-1440	144	1440 (56.7)	MS4800A-30-1440	72	1440 (56.7)			
MS4800A-14-1480	148	1480 (58.3)	MS4800A-20-1480	148	1480 (58.3)	MS4800A-30-1480	74	1480 (58.3)			
MS4800A-14-1520	152	1520 (59.8)	MS4800A-20-1520	152	1520 (59.8)	MS4800A-30-1520	76	1520 (59.8)			
MS4800A-14-1560	156	1560 (61.4)	MS4800A-20-1560	156	1560 (61.4)	MS4800A-30-1560	78	1560 (61.4)			
MS4800A-14-1600	160	1600 (63.0)	MS4800A-20-1600	160	1600 (63.0)	MS4800A-30-1600	80	1600 (63.0)			
MS4800A-14-1640	164	1640 (64.6)	MS4800A-20-1640	164	1640 (64.6)	MS4800A-30-1640	82	1640 (64.6)			
MS4800A-14-1680	168	1680 (66.1)	MS4800A-20-1680	168	1680 (66.1)	MS4800A-30-1680	84	1680 (66.1)			
MS4800A-14-1720	172	1720 (67.7)	MS4800A-20-1720	172	1720 (67.7)	MS4800A-30-1720	86	1720 (67.7)			
MS4800A-14-1760	176	1760 (69.3)	MS4800A-20-1760	176	1760 (69.3)	MS4800A-30-1760	88	1760 (69.3)			
MS4800A-14-1800	180	1800 (70.9)	MS4800A-20-1800	180	1800 (70.9)	MS4800A-30-1800	90	1800 (70.9)			
						MS4800A-30-1840	92	1840 (72.4)			
						MS4800A-30-1880	94	1880 (74.0)			
						MS4800A-30-1920	96	1920 (75.6)			
						MS4800A-30-1960	98	1960 (77.2)			
						MS4800A-30-2000	100	2000 (78.7)			
						MS4800A-30-2040	102	2040 (80.3)			
						MS4800A-30-2080	104	2080 (81.9)			
						MS4800A-30-2120	106	2120 (83.5)			

Ordering (continued)

Model Numbers (continued)

BASIC PDM (Programming Diagnostic Module) CONFIGURED

14 mm Object Resolution			20 mm Object Resolution			30 mm Object Resolution			40 mm Object Resolution		
Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)
MS4800B-14-0280	28	280 (11.0)	MS4800B-20-0280	28	280 (11.0)	MS4800B-30-0280	14	280 (11.0)	MS4800B-40-0360	12	360 (14.1)
MS4800B-14-0320	32	320 (12.6)	MS4800B-20-0320	32	320 (12.6)	MS4800B-30-0320	16	320 (12.6)	MS4800B-40-0480	16	480 (18.9)
MS4800B-14-0360	36	360 (14.1)	MS4800B-20-0360	36	360 (14.1)	MS4800B-30-0360	18	360 (14.1)	MS4800B-40-0600	20	600 (23.6)
MS4800B-14-0400	40	400 (15.7)	MS4800B-20-0400	40	400 (15.7)	MS4800B-30-0400	20	400 (15.7)	MS4800B-40-0720	24	720 (28.3)
MS4800B-14-0440	44	440 (17.3)	MS4800B-20-0440	44	440 (17.3)	MS4800B-30-0440	22	440 (17.3)	MS4800B-40-0840	28	840 (33.0)
MS4800B-14-0480	48	480 (18.9)	MS4800B-20-0480	48	480 (18.9)	MS4800B-30-0480	24	480 (18.9)	MS4800B-40-0960	32	960 (37.8)
MS4800B-14-0520	52	520 (20.5)	MS4800B-20-0520	52	520 (20.5)	MS4800B-30-0520	26	520 (20.5)	MS4800B-40-1080	36	1080 (42.5)
MS4800B-14-0560	56	560 (22.0)	MS4800B-20-0560	56	560 (22.0)	MS4800B-30-0560	28	560 (22.0)	MS4800B-40-1200	40	1200 (47.2)
MS4800B-14-0600	60	600 (23.6)	MS4800B-20-0600	60	600 (23.6)	MS4800B-30-0600	30	600 (23.6)	MS4800B-40-1320	44	1320 (52.0)
MS4800B-14-0640	64	640 (25.2)	MS4800B-20-0640	64	640 (25.2)	MS4800B-30-0640	32	640 (25.2)	MS4800B-40-1440	48	1440 (56.7)
MS4800B-14-0680	68	680 (26.8)	MS4800B-20-0680	68	680 (26.8)	MS4800B-30-0680	34	680 (26.8)	MS4800B-40-1560	52	1560 (61.4)
MS4800B-14-0720	72	720 (28.3)	MS4800B-20-0720	72	720 (28.3)	MS4800B-30-0720	36	720 (28.3)	MS4800B-40-1680	56	1680 (66.1)
MS4800B-14-0760	76	760 (29.9)	MS4800B-20-0760	76	760 (29.9)	MS4800B-30-0760	38	760 (29.9)	MS4800B-40-1800	60	1800 (70.9)
MS4800B-14-0800	80	800 (31.5)	MS4800B-20-0800	80	800 (31.5)	MS4800B-30-0800	40	800 (31.5)	MS4800B-40-1920	64	1920 (75.6)
MS4800B-14-0840	84	840 (33.0)	MS4800B-20-0840	84	840 (33.0)	MS4800B-30-0840	42	840 (33.0)	MS4800B-40-2040	68	2040 (80.3)
MS4800B-14-0880	88	880 (34.6)	MS4800B-20-0880	88	880 (34.6)	MS4800B-30-0880	44	880 (34.6)			
MS4800B-14-0920	92	920 (36.2)	MS4800B-20-0920	92	920 (36.2)	MS4800B-30-0920	46	920 (36.2)			
MS4800B-14-0960	96	960 (37.8)	MS4800B-20-0960	96	960 (37.8)	MS4800B-30-0960	48	960 (37.8)			
MS4800B-14-1000	100	1000 (39.4)	MS4800B-20-1000	100	1000 (39.4)	MS4800B-30-1000	50	1000 (39.4)			
MS4800B-14-1040	104	1040 (40.9)	MS4800B-20-1040	104	1040 (40.9)	MS4800B-30-1040	52	1040 (40.9)			
MS4800B-14-1080	108	1080 (42.5)	MS4800B-20-1080	108	1080 (42.5)	MS4800B-30-1080	54	1080 (42.5)			
MS4800B-14-1120	112	1120 (44.1)	MS4800B-20-1120	112	1120 (44.1)	MS4800B-30-1120	56	1120 (44.1)			
MS4800B-14-1160	116	1160 (45.8)	MS4800B-20-1160	116	1160 (45.8)	MS4800B-30-1160	58	1160 (45.8)			
MS4800B-14-1200	116	1200 (47.2)	MS4800B-20-1200	116	1200 (47.2)	MS4800B-30-1200	60	1200 (47.2)			
MS4800B-14-1240	120	1240 (48.8)	MS4800B-20-1240	120	1240 (48.8)	MS4800B-30-1240	62	1240 (48.8)			
MS4800B-14-1280	128	1280 (50.4)	MS4800B-20-1280	128	1280 (50.4)	MS4800B-30-1280	64	1280 (50.4)			
MS4800B-14-1320	132	1320 (52.0)	MS4800B-20-1320	132	1320 (52.0)	MS4800B-30-1320	66	1320 (52.0)			
MS4800B-14-1360	136	1360 (53.5)	MS4800B-20-1360	136	1360 (53.5)	MS4800B-30-1360	68	1360 (53.5)			
MS4800B-14-1400	140	1400 (55.1)	MS4800B-20-1400	140	1400 (55.1)	MS4800B-30-1400	70	1400 (55.1)			
MS4800B-14-1440	144	1440 (56.7)	MS4800B-20-1440	144	1440 (56.7)	MS4800B-30-1440	72	1440 (56.7)			
MS4800B-14-1480	148	1480 (58.3)	MS4800B-20-1480	148	1480 (58.3)	MS4800B-30-1480	74	1480 (58.3)			
MS4800B-14-1520	152	1520 (59.8)	MS4800B-20-1520	152	1520 (59.8)	MS4800B-30-1520	76	1520 (59.8)			
MS4800B-14-1560	156	1560 (61.4)	MS4800B-20-1560	156	1560 (61.4)	MS4800B-30-1560	78	1560 (61.4)			
MS4800B-14-1600	160	1600 (63.0)	MS4800B-20-1600	160	1600 (63.0)	MS4800B-30-1600	80	1600 (63.0)			
MS4800B-14-1640	164	1640 (64.6)	MS4800B-20-1640	164	1640 (64.6)	MS4800B-30-1640	82	1640 (64.6)			
MS4800B-14-1680	168	1680 (66.1)	MS4800B-20-1680	168	1680 (66.1)	MS4800B-30-1680	84	1680 (66.1)			
MS4800B-14-1720	172	1720 (67.7)	MS4800B-20-1720	172	1720 (67.7)	MS4800B-30-1720	86	1720 (67.7)			
MS4800B-14-1760	176	1760 (69.3)	MS4800B-20-1760	176	1760 (69.3)	MS4800B-30-1760	88	1760 (69.3)			
MS4800B-14-1800	180	1800 (70.9)	MS4800B-20-1800	180	1800 (70.9)	MS4800B-30-1800	90	1800 (70.9)			
						MS4800B-30-1840	92	1840 (72.4)			
						MS4800B-30-1880	94	1880 (74.0)			
						MS4800B-30-1920	96	1920 (75.6)			
						MS4800B-30-1960	98	1960 (77.2)			
						MS4800B-30-2000	100	2000 (78.7)			
						MS4800B-30-2040	102	2040 (80.3)			
						MS4800B-30-2080	104	2080 (81.9)			
						MS4800B-30-2120	106	2120 (83.5)			

Ordering (continued)

Model Numbers (continued)

STANDARD SWITCH CONFIGURED

14 mm Object Resolution			20 mm Object Resolution			30 mm Object Resolution			40 mm Object Resolution		
Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)
MS4800S-14-0280	28	280 (11.0)	MS4800S-20-0280	28	280 (11.0)	MS4800S-30-0280	14	280 (11.0)	MS4800S-40-0360	12	360 (14.1)
MS4800S-14-0320	32	320 (12.6)	MS4800S-20-0320	32	320 (12.6)	MS4800S-30-0320	16	320 (12.6)	MS4800S-40-0480	16	480 (18.9)
MS4800S-14-0360	36	360 (14.1)	MS4800S-20-0360	36	360 (14.1)	MS4800S-30-0360	18	360 (14.1)	MS4800S-40-0600	20	600 (23.6)
MS4800S-14-0400	40	400 (15.7)	MS4800S-20-0400	40	400 (15.7)	MS4800S-30-0400	20	400 (15.7)	MS4800S-40-0720	24	720 (28.3)
MS4800S-14-0440	44	440 (17.3)	MS4800S-20-0440	44	440 (17.3)	MS4800S-30-0440	22	440 (17.3)	MS4800S-40-0840	28	840 (33.0)
MS4800S-14-0480	48	480 (18.9)	MS4800S-20-0480	48	480 (18.9)	MS4800S-30-0480	24	480 (18.9)	MS4800S-40-0960	32	960 (37.8)
MS4800S-14-0520	52	520 (20.5)	MS4800S-20-0520	52	520 (20.5)	MS4800S-30-0520	26	520 (20.5)	MS4800S-40-1080	36	1080 (42.5)
MS4800S-14-0560	56	560 (22.0)	MS4800S-20-0560	56	560 (22.0)	MS4800S-30-0560	28	560 (22.0)	MS4800S-40-1200	40	1200 (47.2)
MS4800S-14-0600	60	600 (23.6)	MS4800S-20-0600	60	600 (23.6)	MS4800S-30-0600	30	600 (23.6)	MS4800S-40-1320	44	1320 (52.0)
MS4800S-14-0640	64	640 (25.2)	MS4800S-20-0640	64	640 (25.2)	MS4800S-30-0640	32	640 (25.2)	MS4800S-40-1440	48	1440 (56.7)
MS4800S-14-0680	68	680 (26.8)	MS4800S-20-0680	68	680 (26.8)	MS4800S-30-0680	34	680 (26.8)	MS4800S-40-1560	52	1560 (61.4)
MS4800S-14-0720	72	720 (28.3)	MS4800S-20-0720	72	720 (28.3)	MS4800S-30-0720	36	720 (28.3)	MS4800S-40-1680	56	1680 (66.1)
MS4800S-14-0760	76	760 (29.9)	MS4800S-20-0760	76	760 (29.9)	MS4800S-30-0760	38	760 (29.9)	MS4800S-40-1800	60	1800 (70.9)
MS4800S-14-0800	80	800 (31.5)	MS4800S-20-0800	80	800 (31.5)	MS4800S-30-0800	40	800 (31.5)	MS4800S-40-1920	64	1920 (75.6)
MS4800S-14-0840	84	840 (33.0)	MS4800S-20-0840	84	840 (33.0)	MS4800S-30-0840	42	840 (33.0)	MS4800S-40-2040	68	2040 (80.3)
MS4800S-14-0880	88	880 (34.6)	MS4800S-20-0880	88	880 (34.6)	MS4800S-30-0880	44	880 (34.6)			
MS4800S-14-0920	92	920 (36.2)	MS4800S-20-0920	92	920 (36.2)	MS4800S-30-0920	46	920 (36.2)			
MS4800S-14-0960	96	960 (37.8)	MS4800S-20-0960	96	960 (37.8)	MS4800S-30-0960	48	960 (37.8)			
MS4800S-14-1000	100	1000 (39.4)	MS4800S-20-1000	100	1000 (39.4)	MS4800S-30-1000	50	1000 (39.4)			
MS4800S-14-1040	104	1040 (40.9)	MS4800S-20-1040	104	1040 (40.9)	MS4800S-30-1040	52	1040 (40.9)			
MS4800S-14-1080	108	1080 (42.5)	MS4800S-20-1080	108	1080 (42.5)	MS4800S-30-1080	54	1080 (42.5)			
MS4800S-14-1120	112	1120 (44.1)	MS4800S-20-1120	112	1120 (44.1)	MS4800S-30-1120	56	1120 (44.1)			
MS4800S-14-1160	116	1160 (45.8)	MS4800S-20-1160	116	1160 (45.8)	MS4800S-30-1160	58	1160 (45.8)			
MS4800S-14-1200	116	1200 (47.2)	MS4800S-20-1200	116	1200 (47.2)	MS4800S-30-1200	60	1200 (47.2)			
MS4800S-14-1240	120	1240 (48.8)	MS4800S-20-1240	120	1240 (48.8)	MS4800S-30-1240	62	1240 (48.8)			
MS4800S-14-1280	128	1280 (50.4)	MS4800S-20-1280	128	1280 (50.4)	MS4800S-30-1280	64	1280 (50.4)			
MS4800S-14-1320	132	1320 (52.0)	MS4800S-20-1320	132	1320 (52.0)	MS4800S-30-1320	66	1320 (52.0)			
MS4800S-14-1360	136	1360 (53.5)	MS4800S-20-1360	136	1360 (53.5)	MS4800S-30-1360	68	1360 (53.5)			
MS4800S-14-1400	140	1400 (55.1)	MS4800S-20-1400	140	1400 (55.1)	MS4800S-30-1400	70	1400 (55.1)			
MS4800S-14-1440	144	1440 (56.7)	MS4800S-20-1440	144	1440 (56.7)	MS4800S-30-1440	72	1440 (56.7)			
MS4800S-14-1480	148	1480 (58.3)	MS4800S-20-1480	148	1480 (58.3)	MS4800S-30-1480	74	1480 (58.3)			
MS4800S-14-1520	152	1520 (59.8)	MS4800S-20-1520	152	1520 (59.8)	MS4800S-30-1520	76	1520 (59.8)			
MS4800S-14-1560	156	1560 (61.4)	MS4800S-20-1560	156	1560 (61.4)	MS4800S-30-1560	78	1560 (61.4)			
MS4800S-14-1600	160	1600 (63.0)	MS4800S-20-1600	160	1600 (63.0)	MS4800S-30-1600	80	1600 (63.0)			
MS4800S-14-1640	164	1640 (64.6)	MS4800S-20-1640	164	1640 (64.6)	MS4800S-30-1640	82	1640 (64.6)			
MS4800S-14-1680	168	1680 (66.1)	MS4800S-20-1680	168	1680 (66.1)	MS4800S-30-1680	84	1680 (66.1)			
MS4800S-14-1720	172	1720 (67.7)	MS4800S-20-1720	172	1720 (67.7)	MS4800S-30-1720	86	1720 (67.7)			
MS4800S-14-1760	176	1760 (69.3)	MS4800S-20-1760	176	1760 (69.3)	MS4800S-30-1760	88	1760 (69.3)			
MS4800S-14-1800	180	1800 (70.9)	MS4800S-20-1800	180	1800 (70.9)	MS4800S-30-1800	90	1800 (70.9)			
						MS4800S-30-1840	92	1840 (72.4)			
						MS4800S-30-1880	94	1880 (74.0)			
						MS4800S-30-1920	96	1920 (75.6)			
						MS4800S-30-1960	98	1960 (77.2)			
						MS4800S-30-2000	100	2000 (78.7)			
						MS4800S-30-2040	102	2040 (80.3)			
						MS4800S-30-2080	104	2080 (81.9)			
						MS4800S-30-2120	106	2120 (83.5)			

Quick Fixed Blanking

Add "-SB1" suffix to any MS/MSF4800S version that requires Quick Fixed Blanking. i.e. MSF4800S-40-2040-SB1.

Ordering (continued)

Model Numbers (continued)

CASCADABLE — ADVANCED 1ST SEGMENT PDM (Programming Diagnostic Module) CONFIGURED (Maximum of four segments or 256 total beams)

14 mm Object Resolution			20 mm Object Resolution			30 mm Object Resolution			40 mm Object Resolution		
Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)
MSF4800A-14-0280	28	280 (11.0)	MSF4800A-20-0280	28	280 (11.0)	MSF4800A-30-0280	14	280 (11.0)	MSF4800A-40-0360	12	360 (14.1)
MSF4800A-14-0320	32	320 (12.6)	MSF4800A-20-0320	32	320 (12.6)	MSF4800A-30-0320	16	320 (12.6)	MSF4800A-40-0480	16	480 (18.9)
MSF4800A-14-0360	36	360 (14.1)	MSF4800A-20-0360	36	360 (14.1)	MSF4800A-30-0360	18	360 (14.1)	MSF4800A-40-0600	20	600 (23.6)
MSF4800A-14-0400	40	400 (15.7)	MSF4800A-20-0400	40	400 (15.7)	MSF4800A-30-0400	20	400 (15.7)	MSF4800A-40-0720	24	720 (28.3)
MSF4800A-14-0440	44	440 (17.3)	MSF4800A-20-0440	44	440 (17.3)	MSF4800A-30-0440	22	440 (17.3)	MSF4800A-40-0840	28	840 (33.0)
MSF4800A-14-0480	48	480 (18.9)	MSF4800A-20-0480	48	480 (18.9)	MSF4800A-30-0480	24	480 (18.9)	MSF4800A-40-0960	32	960 (37.8)
MSF4800A-14-0520	52	520 (20.5)	MSF4800A-20-0520	52	520 (20.5)	MSF4800A-30-0520	26	520 (20.5)	MSF4800A-40-1080	36	1080 (42.5)
MSF4800A-14-0560	56	560 (22.0)	MSF4800A-20-0560	56	560 (22.0)	MSF4800A-30-0560	28	560 (22.0)	MSF4800A-40-1200	40	1200 (47.2)
MSF4800A-14-0600	60	600 (23.6)	MSF4800A-20-0600	60	600 (23.6)	MSF4800A-30-0600	30	600 (23.6)	MSF4800A-40-1320	44	1320 (52.0)
MSF4800A-14-0640	64	640 (25.2)	MSF4800A-20-0640	64	640 (25.2)	MSF4800A-30-0640	32	640 (25.2)	MSF4800A-40-1440	48	1440 (56.7)
MSF4800A-14-0680	68	680 (26.8)	MSF4800A-20-0680	68	680 (26.8)	MSF4800A-30-0680	34	680 (26.8)	MSF4800A-40-1560	52	1560 (61.4)
MSF4800A-14-0720	72	720 (28.3)	MSF4800A-20-0720	72	720 (28.3)	MSF4800A-30-0720	36	720 (28.3)	MSF4800A-40-1680	56	1680 (66.1)
MSF4800A-14-0760	76	760 (29.9)	MSF4800A-20-0760	76	760 (29.9)	MSF4800A-30-0760	38	760 (29.9)	MSF4800A-40-1800	60	1800 (70.9)
MSF4800A-14-0800	80	800 (31.5)	MSF4800A-20-0800	80	800 (31.5)	MSF4800A-30-0800	40	800 (31.5)	MSF4800A-40-1920	64	1920 (75.6)
MSF4800A-14-0840	84	840 (33.0)	MSF4800A-20-0840	84	840 (33.0)	MSF4800A-30-0840	42	840 (33.0)	MSF4800A-40-2040	68	2040 (80.3)
MSF4800A-14-0880	88	880 (34.6)	MSF4800A-20-0880	88	880 (34.6)	MSF4800A-30-0880	44	880 (34.6)			
MSF4800A-14-0920	92	920 (36.2)	MSF4800A-20-0920	92	920 (36.2)	MSF4800A-30-0920	46	920 (36.2)			
MSF4800A-14-0960	96	960 (37.8)	MSF4800A-20-0960	96	960 (37.8)	MSF4800A-30-0960	48	960 (37.8)			
MSF4800A-14-1000	100	1000 (39.4)	MSF4800A-20-1000	100	1000 (39.4)	MSF4800A-30-1000	50	1000 (39.4)			
MSF4800A-14-1040	104	1040 (40.9)	MSF4800A-20-1040	104	1040 (40.9)	MSF4800A-30-1040	52	1040 (40.9)			
MSF4800A-14-1080	108	1080 (42.5)	MSF4800A-20-1080	108	1080 (42.5)	MSF4800A-30-1080	54	1080 (42.5)			
MSF4800A-14-1120	112	1120 (44.1)	MSF4800A-20-1120	112	1120 (44.1)	MSF4800A-30-1120	56	1120 (44.1)			
MSF4800A-14-1160	116	1160 (45.8)	MSF4800A-20-1160	116	1160 (45.8)	MSF4800A-30-1160	58	1160 (45.8)			
MSF4800A-14-1200	116	1200 (47.2)	MSF4800A-20-1200	116	1200 (47.2)	MSF4800A-30-1200	60	1200 (47.2)			
MSF4800A-14-1240	120	1240 (48.8)	MSF4800A-20-1240	120	1240 (48.8)	MSF4800A-30-1240	62	1240 (48.8)			
MSF4800A-14-1280	128	1280 (50.4)	MSF4800A-20-1280	128	1280 (50.4)	MSF4800A-30-1280	64	1280 (50.4)			
MSF4800A-14-1320	132	1320 (52.0)	MSF4800A-20-1320	132	1320 (52.0)	MSF4800A-30-1320	66	1320 (52.0)			
MSF4800A-14-1360	136	1360 (53.5)	MSF4800A-20-1360	136	1360 (53.5)	MSF4800A-30-1360	68	1360 (53.5)			
MSF4800A-14-1400	140	1400 (55.1)	MSF4800A-20-1400	140	1400 (55.1)	MSF4800A-30-1400	70	1400 (55.1)			
MSF4800A-14-1440	144	1440 (56.7)	MSF4800A-20-1440	144	1440 (56.7)	MSF4800A-30-1440	72	1440 (56.7)			
MSF4800A-14-1480	148	1480 (58.3)	MSF4800A-20-1480	148	1480 (58.3)	MSF4800A-30-1480	74	1480 (58.3)			
MSF4800A-14-1520	152	1520 (59.8)	MSF4800A-20-1520	152	1520 (59.8)	MSF4800A-30-1520	76	1520 (59.8)			
MSF4800A-14-1560	156	1560 (61.4)	MSF4800A-20-1560	156	1560 (61.4)	MSF4800A-30-1560	78	1560 (61.4)			
MSF4800A-14-1600	160	1600 (63.0)	MSF4800A-20-1600	160	1600 (63.0)	MSF4800A-30-1600	80	1600 (63.0)			
MSF4800A-14-1640	164	1640 (64.6)	MSF4800A-20-1640	164	1640 (64.6)	MSF4800A-30-1640	82	1640 (64.6)			
MSF4800A-14-1680	168	1680 (66.1)	MSF4800A-20-1680	168	1680 (66.1)	MSF4800A-30-1680	84	1680 (66.1)			
MSF4800A-14-1720	172	1720 (67.7)	MSF4800A-20-1720	172	1720 (67.7)	MSF4800A-30-1720	86	1720 (67.7)			
MSF4800A-14-1760	176	1760 (69.3)	MSF4800A-20-1760	176	1760 (69.3)	MSF4800A-30-1760	88	1760 (69.3)			
MSF4800A-14-1800	180	1800 (70.9)	MSF4800A-20-1800	180	1800 (70.9)	MSF4800A-30-1800	90	1800 (70.9)			
						MSF4800A-30-1840	92	1840 (72.4)			
						MSF4800A-30-1880	94	1880 (74.0)			
						MSF4800A-30-1920	96	1920 (75.6)			
						MSF4800A-30-1960	98	1960 (77.2)			
						MSF4800A-30-2000	100	2000 (78.7)			
						MSF4800A-30-2040	102	2040 (80.3)			
						MSF4800A-30-2080	104	2080 (81.9)			
						MSF4800A-30-2120	106	2120 (83.5)			

Ordering (continued)

Model Numbers (continued)

BASIC CASCADABLE PDM (Programming Diagnostic Module) CONFIGURED (Maximum of four segments or 256 total beams)

14 mm Object Resolution			20 mm Object Resolution			30 mm Object Resolution			40 mm Object Resolution		
Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)
MSF4800B-14-0280	28	280 (11.0)	MSF4800B-20-0280	28	280 (11.0)	MSF4800B-30-0280	14	280 (11.0)	MSF4800B-40-0360	12	360 (14.1)
MSF4800B-14-0320	32	320 (12.6)	MSF4800B-20-0320	32	320 (12.6)	MSF4800B-30-0320	16	320 (12.6)	MSF4800B-40-0480	16	480 (18.9)
MSF4800B-14-0360	36	360 (14.1)	MSF4800B-20-0360	36	360 (14.1)	MSF4800B-30-0360	18	360 (14.1)	MSF4800B-40-0600	20	600 (23.6)
MSF4800B-14-0400	40	400 (15.7)	MSF4800B-20-0400	40	400 (15.7)	MSF4800B-30-0400	20	400 (15.7)	MSF4800B-40-0720	24	720 (28.3)
MSF4800B-14-0440	44	440 (17.3)	MSF4800B-20-0440	44	440 (17.3)	MSF4800B-30-0440	22	440 (17.3)	MSF4800B-40-0840	28	840 (33.0)
MSF4800B-14-0480	48	480 (18.9)	MSF4800B-20-0480	48	480 (18.9)	MSF4800B-30-0480	24	480 (18.9)	MSF4800B-40-0960	32	960 (37.8)
MSF4800B-14-0520	52	520 (20.5)	MSF4800B-20-0520	52	520 (20.5)	MSF4800B-30-0520	26	520 (20.5)	MSF4800B-40-1080	36	1080 (42.5)
MSF4800B-14-0560	56	560 (22.0)	MSF4800B-20-0560	56	560 (22.0)	MSF4800B-30-0560	28	560 (22.0)	MSF4800B-40-1200	40	1200 (47.2)
MSF4800B-14-0600	60	600 (23.6)	MSF4800B-20-0600	60	600 (23.6)	MSF4800B-30-0600	30	600 (23.6)	MSF4800B-40-1320	44	1320 (52.0)
MSF4800B-14-0640	64	640 (25.2)	MSF4800B-20-0640	64	640 (25.2)	MSF4800B-30-0640	32	640 (25.2)	MSF4800B-40-1440	48	1440 (56.7)
MSF4800B-14-0680	68	680 (26.8)	MSF4800B-20-0680	68	680 (26.8)	MSF4800B-30-0680	34	680 (26.8)	MSF4800B-40-1560	52	1560 (61.4)
MSF4800B-14-0720	72	720 (28.3)	MSF4800B-20-0720	72	720 (28.3)	MSF4800B-30-0720	36	720 (28.3)	MSF4800B-40-1680	56	1680 (66.1)
MSF4800B-14-0760	76	760 (29.9)	MSF4800B-20-0760	76	760 (29.9)	MSF4800B-30-0760	38	760 (29.9)	MSF4800B-40-1800	60	1800 (70.9)
MSF4800B-14-0800	80	800 (31.5)	MSF4800B-20-0800	80	800 (31.5)	MSF4800B-30-0800	40	800 (31.5)	MSF4800B-40-1920	64	1920 (75.6)
MSF4800B-14-0840	84	840 (33.0)	MSF4800B-20-0840	84	840 (33.0)	MSF4800B-30-0840	42	840 (33.0)	MSF4800B-40-2040	68	2040 (80.3)
MSF4800B-14-0880	88	880 (34.6)	MSF4800B-20-0880	88	880 (34.6)	MSF4800B-30-0880	44	880 (34.6)			
MSF4800B-14-0920	92	920 (36.2)	MSF4800B-20-0920	92	920 (36.2)	MSF4800B-30-0920	46	920 (36.2)			
MSF4800B-14-0960	96	960 (37.8)	MSF4800B-20-0960	96	960 (37.8)	MSF4800B-30-0960	48	960 (37.8)			
MSF4800B-14-1000	100	1000 (39.4)	MSF4800B-20-1000	100	1000 (39.4)	MSF4800B-30-1000	50	1000 (39.4)			
MSF4800B-14-1040	104	1040 (40.9)	MSF4800B-20-1040	104	1040 (40.9)	MSF4800B-30-1040	52	1040 (40.9)			
MSF4800B-14-1080	108	1080 (42.5)	MSF4800B-20-1080	108	1080 (42.5)	MSF4800B-30-1080	54	1080 (42.5)			
MSF4800B-14-1120	112	1120 (44.1)	MSF4800B-20-1120	112	1120 (44.1)	MSF4800B-30-1120	56	1120 (44.1)			
MSF4800B-14-1160	116	1160 (45.8)	MSF4800B-20-1160	116	1160 (45.8)	MSF4800B-30-1160	58	1160 (45.8)			
MSF4800B-14-1200	116	1200 (47.2)	MSF4800B-20-1200	116	1200 (47.2)	MSF4800B-30-1200	60	1200 (47.2)			
MSF4800B-14-1240	120	1240 (48.8)	MSF4800B-20-1240	120	1240 (48.8)	MSF4800B-30-1240	62	1240 (48.8)			
MSF4800B-14-1280	128	1280 (50.4)	MSF4800B-20-1280	128	1280 (50.4)	MSF4800B-30-1280	64	1280 (50.4)			
MSF4800B-14-1320	132	1320 (52.0)	MSF4800B-20-1320	132	1320 (52.0)	MSF4800B-30-1320	66	1320 (52.0)			
MSF4800B-14-1360	136	1360 (53.5)	MSF4800B-20-1360	136	1360 (53.5)	MSF4800B-30-1360	68	1360 (53.5)			
MSF4800B-14-1400	140	1400 (55.1)	MSF4800B-20-1400	140	1400 (55.1)	MSF4800B-30-1400	70	1400 (55.1)			
MSF4800B-14-1440	144	1440 (56.7)	MSF4800B-20-1440	144	1440 (56.7)	MSF4800B-30-1440	72	1440 (56.7)			
MSF4800B-14-1480	148	1480 (58.3)	MSF4800B-20-1480	148	1480 (58.3)	MSF4800B-30-1480	74	1480 (58.3)			
MSF4800B-14-1520	152	1520 (59.8)	MSF4800B-20-1520	152	1520 (59.8)	MSF4800B-30-1520	76	1520 (59.8)			
MSF4800B-14-1560	156	1560 (61.4)	MSF4800B-20-1560	156	1560 (61.4)	MSF4800B-30-1560	78	1560 (61.4)			
MSF4800B-14-1600	160	1600 (63.0)	MSF4800B-20-1600	160	1600 (63.0)	MSF4800B-30-1600	80	1600 (63.0)			
MSF4800B-14-1640	164	1640 (64.6)	MSF4800B-20-1640	164	1640 (64.6)	MSF4800B-30-1640	82	1640 (64.6)			
MSF4800B-14-1680	168	1680 (66.1)	MSF4800B-20-1680	168	1680 (66.1)	MSF4800B-30-1680	84	1680 (66.1)			
MSF4800B-14-1720	172	1720 (67.7)	MSF4800B-20-1720	172	1720 (67.7)	MSF4800B-30-1720	86	1720 (67.7)			
MSF4800B-14-1760	176	1760 (69.3)	MSF4800B-20-1760	176	1760 (69.3)	MSF4800B-30-1760	88	1760 (69.3)			
MSF4800B-14-1800	180	1800 (70.9)	MSF4800B-20-1800	180	1800 (70.9)	MSF4800B-30-1800	90	1800 (70.9)			
						MSF4800B-30-1840	92	1840 (72.4)			
						MSF4800B-30-1880	94	1880 (74.0)			
						MSF4800B-30-1920	96	1920 (75.6)			
						MSF4800B-30-1960	98	1960 (77.2)			
						MSF4800B-30-2000	100	2000 (78.7)			
						MSF4800B-30-2040	102	2040 (80.3)			
						MSF4800B-30-2080	104	2080 (81.9)			
						MSF4800B-30-2120	106	2120 (83.5)			

Ordering (continued)

Model Numbers (continued)

STANDARD CASCADABLE SWITCH CONFIGURED (Maximum of four segments or 256 total beams)

14 mm Object Resolution			20 mm Object Resolution			30 mm Object Resolution			40 mm Object Resolution		
Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)
MSF4800S-14-0280	28	280 (11.0)	MSF4800S-20-0280	28	280 (11.0)	MSF4800S-30-0280	14	280 (11.0)	MSF4800S-40-0360	12	360 (14.1)
MSF4800S-14-0320	32	320 (12.6)	MSF4800S-20-0320	32	320 (12.6)	MSF4800S-30-0320	16	320 (12.6)	MSF4800S-40-0480	16	480 (18.9)
MSF4800S-14-0360	36	360 (14.1)	MSF4800S-20-0360	36	360 (14.1)	MSF4800S-30-0360	18	360 (14.1)	MSF4800S-40-0600	20	600 (23.6)
MSF4800S-14-0400	40	400 (15.7)	MSF4800S-20-0400	40	400 (15.7)	MSF4800S-30-0400	20	400 (15.7)	MSF4800S-40-0720	24	720 (28.3)
MSF4800S-14-0440	44	440 (17.3)	MSF4800S-20-0440	44	440 (17.3)	MSF4800S-30-0440	22	440 (17.3)	MSF4800S-40-0840	28	840 (33.0)
MSF4800S-14-0480	48	480 (18.9)	MSF4800S-20-0480	48	480 (18.9)	MSF4800S-30-0480	24	480 (18.9)	MSF4800S-40-0960	32	960 (37.8)
MSF4800S-14-0520	52	520 (20.5)	MSF4800S-20-0520	52	520 (20.5)	MSF4800S-30-0520	26	520 (20.5)	MSF4800S-40-1080	36	1080 (42.5)
MSF4800S-14-0560	56	560 (22.0)	MSF4800S-20-0560	56	560 (22.0)	MSF4800S-30-0560	28	560 (22.0)	MSF4800S-40-1200	40	1200 (47.2)
MSF4800S-14-0600	60	600 (23.6)	MSF4800S-20-0600	60	600 (23.6)	MSF4800S-30-0600	30	600 (23.6)	MSF4800S-40-1320	44	1320 (52.0)
MSF4800S-14-0640	64	640 (25.2)	MSF4800S-20-0640	64	640 (25.2)	MSF4800S-30-0640	32	640 (25.2)	MSF4800S-40-1440	48	1440 (56.7)
MSF4800S-14-0680	68	680 (26.8)	MSF4800S-20-0680	68	680 (26.8)	MSF4800S-30-0680	34	680 (26.8)	MSF4800S-40-1560	52	1560 (61.4)
MSF4800S-14-0720	72	720 (28.3)	MSF4800S-20-0720	72	720 (28.3)	MSF4800S-30-0720	36	720 (28.3)	MSF4800S-40-1680	56	1680 (66.1)
MSF4800S-14-0760	76	760 (29.9)	MSF4800S-20-0760	76	760 (29.9)	MSF4800S-30-0760	38	760 (29.9)	MSF4800S-40-1800	60	1800 (70.9)
MSF4800S-14-0800	80	800 (31.5)	MSF4800S-20-0800	80	800 (31.5)	MSF4800S-30-0800	40	800 (31.5)	MSF4800S-40-1920	64	1920 (75.6)
MSF4800S-14-0840	84	840 (33.0)	MSF4800S-20-0840	84	840 (33.0)	MSF4800S-30-0840	42	840 (33.0)	MSF4800S-40-2040	68	2040 (80.3)
MSF4800S-14-0880	88	880 (34.6)	MSF4800S-20-0880	88	880 (34.6)	MSF4800S-30-0880	44	880 (34.6)			
MSF4800S-14-0920	92	920 (36.2)	MSF4800S-20-0920	92	920 (36.2)	MSF4800S-30-0920	46	920 (36.2)			
MSF4800S-14-0960	96	960 (37.8)	MSF4800S-20-0960	96	960 (37.8)	MSF4800S-30-0960	48	960 (37.8)			
MSF4800S-14-1000	100	1000 (39.4)	MSF4800S-20-1000	100	1000 (39.4)	MSF4800S-30-1000	50	1000 (39.4)			
MSF4800S-14-1040	104	1040 (40.9)	MSF4800S-20-1040	104	1040 (40.9)	MSF4800S-30-1040	52	1040 (40.9)			
MSF4800S-14-1080	108	1080 (42.5)	MSF4800S-20-1080	108	1080 (42.5)	MSF4800S-30-1080	54	1080 (42.5)			
MSF4800S-14-1120	112	1120 (44.1)	MSF4800S-20-1120	112	1120 (44.1)	MSF4800S-30-1120	56	1120 (44.1)			
MSF4800S-14-1160	116	1160 (45.8)	MSF4800S-20-1160	116	1160 (45.8)	MSF4800S-30-1160	58	1160 (45.8)			
MSF4800S-14-1200	116	1200 (47.2)	MSF4800S-20-1200	116	1200 (47.2)	MSF4800S-30-1200	60	1200 (47.2)			
MSF4800S-14-1240	120	1240 (48.8)	MSF4800S-20-1240	120	1240 (48.8)	MSF4800S-30-1240	62	1240 (48.8)			
MSF4800S-14-1280	128	1280 (50.4)	MSF4800S-20-1280	128	1280 (50.4)	MSF4800S-30-1280	64	1280 (50.4)			
MSF4800S-14-1320	132	1320 (52.0)	MSF4800S-20-1320	132	1320 (52.0)	MSF4800S-30-1320	66	1320 (52.0)			
MSF4800S-14-1360	136	1360 (53.5)	MSF4800S-20-1360	136	1360 (53.5)	MSF4800S-30-1360	68	1360 (53.5)			
MSF4800S-14-1400	140	1400 (55.1)	MSF4800S-20-1400	140	1400 (55.1)	MSF4800S-30-1400	70	1400 (55.1)			
MSF4800S-14-1440	144	1440 (56.7)	MSF4800S-20-1440	144	1440 (56.7)	MSF4800S-30-1440	72	1440 (56.7)			
MSF4800S-14-1480	148	1480 (58.3)	MSF4800S-20-1480	148	1480 (58.3)	MSF4800S-30-1480	74	1480 (58.3)			
MSF4800S-14-1520	152	1520 (59.8)	MSF4800S-20-1520	152	1520 (59.8)	MSF4800S-30-1520	76	1520 (59.8)			
MSF4800S-14-1560	156	1560 (61.4)	MSF4800S-20-1560	156	1560 (61.4)	MSF4800S-30-1560	78	1560 (61.4)			
MSF4800S-14-1600	160	1600 (63.0)	MSF4800S-20-1600	160	1600 (63.0)	MSF4800S-30-1600	80	1600 (63.0)			
MSF4800S-14-1640	164	1640 (64.6)	MSF4800S-20-1640	164	1640 (64.6)	MSF4800S-30-1640	82	1640 (64.6)			
MSF4800S-14-1680	168	1680 (66.1)	MSF4800S-20-1680	168	1680 (66.1)	MSF4800S-30-1680	84	1680 (66.1)			
MSF4800S-14-1720	172	1720 (67.7)	MSF4800S-20-1720	172	1720 (67.7)	MSF4800S-30-1720	86	1720 (67.7)			
MSF4800S-14-1760	176	1760 (69.3)	MSF4800S-20-1760	176	1760 (69.3)	MSF4800S-30-1760	88	1760 (69.3)			
MSF4800S-14-1800	180	1800 (70.9)	MSF4800S-20-1800	180	1800 (70.9)	MSF4800S-30-1800	90	1800 (70.9)			
						MSF4800S-30-1840	92	1840 (72.4)			
						MSF4800S-30-1880	94	1880 (74.0)			
						MSF4800S-30-1920	96	1920 (75.6)			
						MSF4800S-30-1960	98	1960 (77.2)			
						MSF4800S-30-2000	100	2000 (78.7)			
						MSF4800S-30-2040	102	2040 (80.3)			
						MSF4800S-30-2080	104	2080 (81.9)			
						MSF4800S-30-2120	106	2120 (83.5)			

Quick Fixed Blanking

Add "-SB1" suffix to any MS/MSF4800S version that requires Quick Fixed Blanking. i.e. MSF4800S-40-2040-SB1.

Ordering (continued)

Model Numbers (continued)

CASCADABLE SEGMENT EXTENSIONS (Maximum of four segments or 256 total beams)

14 mm Object Resolution			20 mm Object Resolution			30 mm Object Resolution			40 mm Object Resolution		
Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)	Model	No. of Beams	Protective Height, in. (mm)
MSF4800-14-0240-XR2	24	240 (9.4)	MSF4800-20-0280-XR2	28	280 (11.0)	MSF4800-30-0280-XR2	14	280 (11.0)	MSF4800-40-0360-XR2	12	360 (14.1)
MSF4800-14-0280-XR2	28	280 (11.0)	MSF4800-20-0320-XR2	32	320 (12.6)	MSF4800-30-0320-XR2	16	320 (12.6)	MSF4800-40-0480-XR2	16	480 (18.9)
MSF4800-14-0320-XR2	32	320 (12.6)	MSF4800-20-0360-XR2	36	360 (14.1)	MSF4800-30-0360-XR2	18	360 (14.1)	MSF4800-40-0600-XR2	20	600 (23.6)
MSF4800-14-0360-XR2	36	360 (14.1)	MSF4800-20-0400-XR2	40	400 (15.7)	MSF4800-30-0400-XR2	20	400 (15.7)	MSF4800-40-0720-XR2	24	720 (28.3)
MSF4800-14-0400-XR2	40	400 (15.7)	MSF4800-20-0440-XR2	44	440 (17.3)	MSF4800-30-0440-XR2	22	440 (17.3)	MSF4800-40-0840-XR2	28	840 (33.0)
MSF4800-14-0440-XR2	44	440 (17.3)	MSF4800-20-0480-XR2	48	480 (18.9)	MSF4800-30-0480-XR2	24	480 (18.9)	MSF4800-40-0960-XR2	32	960 (37.8)
MSF4800-14-0480-XR2	48	480 (18.9)	MSF4800-20-0520-XR2	52	520 (20.5)	MSF4800-30-0520-XR2	26	520 (20.5)	MSF4800-40-1080-XR2	36	1080 (42.5)
MSF4800-14-0520-XR2	52	520 (20.5)	MSF4800-20-0560-XR2	56	560 (22.0)	MSF4800-30-0560-XR2	28	560 (22.0)	MSF4800-40-1200-XR2	40	1200 (47.2)
MSF4800-14-0560-XR2	56	560 (22.0)	MSF4800-20-0600-XR2	60	600 (23.6)	MSF4800-30-0600-XR2	30	600 (23.6)	MSF4800-40-1320-XR2	44	1320 (52.0)
MSF4800-14-0600-XR2	60	600 (23.6)	MSF4800-20-0640-XR2	64	640 (25.2)	MSF4800-30-0640-XR2	32	640 (25.2)	MSF4800-40-1440-XR2	48	1440 (56.7)
MSF4800-14-0640-XR2	64	640 (25.2)	MSF4800-20-0680-XR2	68	680 (26.8)	MSF4800-30-0680-XR2	34	680 (26.8)	MSF4800-40-1560-XR2	52	1560 (61.4)
MSF4800-14-0680-XR2	68	680 (26.8)	MSF4800-20-0720-XR2	72	720 (28.3)	MSF4800-30-0720-XR2	36	720 (28.3)	MSF4800-40-1680-XR2	56	1680 (66.1)
MSF4800-14-0720-XR2	72	720 (28.3)	MSF4800-20-0760-XR2	76	760 (29.9)	MSF4800-30-0760-XR2	38	760 (29.9)	MSF4800-40-1800-XR2	60	1800 (70.9)
MSF4800-14-0760-XR2	76	760 (29.9)	MSF4800-20-0800-XR2	80	800 (31.5)	MSF4800-30-0800-XR2	40	800 (31.5)	MSF4800-40-1920-XR2	64	1920 (75.6)
MSF4800-14-0800-XR2	80	800 (31.5)	MSF4800-20-0840-XR2	84	840 (33.0)	MSF4800-30-0840-XR2	42	840 (33.0)	MSF4800-40-2040-XR2	68	2040 (80.3)
MSF4800-14-0840-XR2	84	840 (33.0)	MSF4800-20-0880-XR2	88	880 (34.6)	MSF4800-30-0880-XR2	44	880 (34.6)			
MSF4800-14-0880-XR2	88	880 (34.6)	MSF4800-20-0920-XR2	92	920 (36.2)	MSF4800-30-0920-XR2	46	920 (36.2)			
MSF4800-14-0920-XR2	92	920 (36.2)	MSF4800-20-0960-XR2	96	960 (37.8)	MSF4800-30-0960-XR2	48	960 (37.8)			
MSF4800-14-0960-XR2	96	960 (37.8)	MSF4800-20-1000-XR2	100	1000 (39.4)	MSF4800-30-1000-XR2	50	1000 (39.4)			
MSF4800-14-1000-XR2	100	1000 (39.4)	MSF4800-20-1040-XR2	104	1040 (40.9)	MSF4800-30-1040-XR2	52	1040 (40.9)			
MSF4800-14-1040-XR2	104	1040 (40.9)	MSF4800-20-1080-XR2	108	1080 (42.5)	MSF4800-30-1080-XR2	54	1080 (42.5)			
MSF4800-14-1080-XR2	108	1080 (42.5)	MSF4800-20-1120-XR2	112	1120 (44.1)	MSF4800-30-1120-XR2	56	1120 (44.1)			
MSF4800-14-1120-XR2	112	1120 (44.1)	MSF4800-20-1160-XR2	116	1160 (45.8)	MSF4800-30-1160-XR2	58	1160 (45.8)			
MSF4800-14-1160-XR2	116	1160 (45.8)	MSF4800-20-1200-XR2	116	1200 (47.2)	MSF4800-30-1200-XR2	60	1200 (47.2)			
MSF4800-14-1200-XR2	116	1200 (47.2)	MSF4800-20-1240-XR2	120	1240 (48.8)	MSF4800-30-1240-XR2	62	1240 (48.8)			
MSF4800-14-1240-XR2	120	1240 (48.8)	MSF4800-20-1280-XR2	128	1280 (50.4)	MSF4800-30-1280-XR2	64	1280 (50.4)			
MSF4800-14-1280-XR2	128	1280 (50.4)				MSF4800-30-1320-XR2	66	1320 (52.0)			
						MSF4800-30-1360-XR2	68	1360 (53.5)			
						MSF4800-30-1400-XR2	70	1400 (55.1)			
						MSF4800-30-1440-XR2	72	1440 (56.7)			
						MSF4800-30-1480-XR2	74	1480 (58.3)			
						MSF4800-30-1520-XR2	76	1520 (59.8)			
						MSF4800-30-1560-XR2	78	1560 (61.4)			
						MSF4800-30-1600-XR2	80	1600 (63.0)			
						MSF4800-30-1640-XR2	82	1640 (64.6)			
						MSF4800-30-1680-XR2	84	1680 (66.1)			
						MSF4800-30-1720-XR2	86	1720 (67.7)			
						MSF4800-30-1760-XR2	88	1760 (69.3)			
						MSF4800-30-1800-XR2	90	1800 (70.9)			
						MSF4800-30-1840-XR2	92	1840 (72.4)			
						MSF4800-30-1880-XR2	94	1880 (74.0)			
						MSF4800-30-1920-XR2	96	1920 (75.6)			
						MSF4800-30-1960-XR2	98	1960 (77.2)			
						MSF4800-30-2000-XR2	100	2000 (78.7)			
						MSF4800-30-2040-XR2	102	2040 (80.3)			
						MSF4800-30-2080-XR2	104	2080 (81.9)			
						MSF4800-30-2120-XR2	106	2120 (83.5)			

Ordering (continued)

Accessories

Receiver Cables	
MS4800-CBLRX-10M	Receiver cable, 10 m (32.8 ft.)
MS4800-CBLRX-15M	Receiver cable, 15 m (49.2 ft.)
MS4800-CBLRX-30M	Receiver cable, 30 m (98.5 ft.)
Transmitter Cables	
MS4800-CBLTX-10M	Transmitter cable, 10 m (32.8 ft.)
MS4800-CBLTX-15M	Transmitter cable, 15 m (49.2 ft.)
MS4800-CBLTX-30M	Transmitter cable, 30 m (98.5 ft.)
Transmitter Interconnect Cables (for Cascading)	
MS4800-CBLTXIC-003M	Transmitter interconnect cable, 0.3 m (12 in.)
MS4800-CBLTXIC-005M	Transmitter interconnect cable, 0.5 m (20 in.)
MS4800-CBLTXIC-01M	Transmitter interconnect cable, 1 m (3.3 ft.)
MS4800-CBLTXIC-02M	Transmitter interconnect cable, 2 m (6.6 ft.)
MS4800-CBLTXIC-03M	Transmitter interconnect cable, 3 m (10 ft.)
MS4800-CBLTXIC-05M	Transmitter interconnect cable, 5 m (16 ft.)
MS4800-CBLTXIC-10M	Transmitter interconnect cable, 10 m (33 ft.)
Receiver Interconnect Cables (for Cascading)	
MS4800-CBLRXIC-003M	Receiver interconnect cable, 0.3 m (12 in.)
MS4800-CBLRXIC-005M	Receiver interconnect cable, 0.5 m (20 in.)
MS4800-CBLRXIC-01M	Receiver interconnect cable, 1 m (3.3 ft.)
MS4800-CBLRXIC-02M	Receiver interconnect cable, 2 m (6.6 ft.)
MS4800-CBLRXIC-03M	Receiver interconnect cable, 3 m (10 ft.)
MS4800-CBLRXIC-05M	Receiver interconnect cable, 5 m (16 ft.)
MS4800-CBLRXIC-10M	Receiver interconnect cable, 10 m (33 ft.)
RM-6 (Mute) Cables	
MS4800-CBLMT-10M	MSF4800 to RM-6 cable, 10 m (33 ft.)
MS4800-CBLMT-15M	MSF4800 to RM-6 cable, 15 m (49.2 ft.)
MS4800-CBLMT-30M	MSF4800 to RM-6 cable, 30 m (98.5 ft.)
Double-Ended Transmitter Cables	
MS4800-CBLTXT-05M	Double-ended, quick disconnect, 5 m (16.4 ft.)
MS4800-CBLTXT-10M	Double-ended, quick disconnect, 10 m (32.8 ft.)
MS4800-CBLTXT-15M	Double-ended, quick disconnect, 15 m (49.2 ft.)
MS4800-CBLTXT-25M	Double-ended, quick disconnect, 25 m (82.0 ft.)
Double-Ended Receiver Cables	
MS4800-CBLRXT-05M	Double-ended, quick disconnect, 5 m (16.4 ft.)
MS4800-CBLRXT-10M	Double-ended, quick disconnect, 10 m (32.8 ft.)
MS4800-CBLRXT-15M	Double-ended, quick disconnect, 15 m (49.2 ft.)
MS4800-CBLRXT-25M	Double-ended, quick disconnect, 25 m (82.0 ft.)
Bulkhead Connectors	
MS4800-PMCTX-01M	Transmitter bulkhead connector, 1 m (3.28 ft.) leads
MS4800-PMCTX-05M	Transmitter bulkhead connector, 5 m (16.4 ft.) leads
MS4800-PMCRX-01M	Receiver bulkhead connector, 1 m (3.28 ft.) leads
MS4800-PMCRX-05M	Receiver bulkhead connector, 5 m (16.4 ft.) leads

Adapter Connectors	
MS4800-ADPT-TXS	Transmitter (standard) cable adapter MS46 to MS48
MS4800-ADPT-TXM	Transmitter (mts) cable adapter MS46 to MS48
MS4800-ADPT-RX	Receiver cable adapter MS46 to MS48
Mounting Bracket Kits	
MS4800-SDM-KT1	MS48 Middle support bracket kit, 2 heads
MS4800-SDM-KT2	MS48 T-slot mounting kit, 2 heads
MS4800-MKT1	End bracket kit, 1 head
MS4800-MKT2	End bracket kit, 2 heads
Resource Modules	
RM-1	RM-1 resource module
RM-2	RM-2 resource module
RM-2AC	RM-2AC resource module/power supply
RM-2AC-IP	RM-2AC resource module/power supply, IP65
RM-2AC-IP-SB1	RM-2AC-IP with SB1 quick fixed blanking option
RM-3	RM-3 mute module
RM-X	RM-X safety relay, 22.5 mm DIN enclosure
MS4800-RM6	RM-6 mute module (only for MSF4800)
Mute Lamp Kits	
MTLEDC-RM3	LED clear mute lamp kit for RM-3
MTLEDA-RM3	LED amber mute lamp kit for RM-3
SB12-CLED00	LED clear mute lamp for RM-6
SB12-ALED00	LED amber mute lamp for RM-6
Programming and Diagnostics Module	
MS4800-PDM	Programming and diagnostic module for the MS/MSF4800A and B
MS4800-PDM-HDR	Mounting holder for mounting the PDM
Explosion-Proof Enclosures, Aluminum Cast Housing (sold as singles)	
MS4800-EPKT-0320	EP enclosure for MS4800-14/20/30/40-0320 (320 mm)
MS4800-EPKT-0640	EP enclosure for MS4800-30-0640 (640 mm)
MS4800-EPKT-0960	EP enclosure for MS4800-30-0960 (960 mm)
MS4800-EPKT-1240	EP enclosure for MS4800-30-1240 (1240 mm)

Safety Standards and Precautions

All models of the MiniSafe meet ANSI/RIA R15.06-1999 (R2009) and ANSI B11.19-2010. When used with mechanical power presses, OSHA industrial safety standards apply, as stated in OSHA 1910.217(c). For other applications, the machine guarding requirements found in OSHA 1910.212 apply. The MiniSafe meets ANSI and CSA requirements for control reliability requirements for point-of-operation presence sensing devices. All controllers have CSA-CUS acceptance and are designed to meet UL508.

MiniSafe MS4800 systems have been EC type examined to the requirements of category 4, EN 954-1 (type 4, IEC 61496).

The MiniSafe should only be used on machinery that can consistently and immediately stop anywhere in its cycle or stroke. Never use a MiniSafe on a full revolution clutched power press or machine. If the light curtain does not protect all access to the point of operation, the unprotected access must be guarded by other appropriate devices such as mechanical guards.

The purchaser, installer and employer have the responsibility to meet all local, state and federal government laws, rules, codes or regulations relating to the proper use, installation, operation and maintenance of this control and the guarded machine. See the Installation and Operation Manual for additional information.

All application examples described are for illustration purposes only. Actual installations will differ from those indicated.

Terms and Conditions of Sale

1. **Offer; Acceptance.** These terms and conditions (these "**Terms**") are deemed part of all quotes, agreements, purchase orders, acknowledgments, price lists, catalogs, manuals, brochures and other documents, whether electronic or in writing, relating to the sale of products or services (collectively, the "**Products**") by Omron Electronics LLC and its subsidiary companies ("**Omron**"). Omron objects to any terms or conditions proposed in Buyer's purchase order or other documents which are inconsistent with, or in addition to, these Terms.
2. **Prices; Payment Terms.** All prices stated are current, subject to change without notice by Omron. Omron reserves the right to increase or decrease prices on any unshipped portions of outstanding orders. Payments for Products are due net 30 days unless otherwise stated in the invoice.
3. **Discounts.** Cash discounts, if any, will apply only on the net amount of invoices sent to Buyer after deducting transportation charges, taxes and duties, and will be allowed only if (i) the invoice is paid according to Omron's payment terms and (ii) Buyer has no past due amounts.
4. **Interest.** Omron, at its option, may charge Buyer 1-1/2% interest per month or the maximum legal rate, whichever is less, on any balance not paid within the stated terms.
5. **Orders.** Omron will accept no order less than \$200 net billing.
6. **Governmental Approvals.** Buyer shall be responsible for, and shall bear all costs involved in, obtaining any government approvals required for the importation or sale of the Products.
7. **Taxes.** All taxes, duties and other governmental charges (other than general real property and income taxes), including any interest or penalties thereon, imposed directly or indirectly on Omron or required to be collected directly or indirectly by Omron for the manufacture, production, sale, delivery, importation, consumption or use of the Products sold hereunder (including customs duties and sales, excise, use, turnover and license taxes) shall be charged to and remitted by Buyer to Omron.
8. **Financial.** If the financial position of Buyer at any time becomes unsatisfactory to Omron, Omron reserves the right to stop shipments or require satisfactory security or payment in advance. If Buyer fails to make payment or otherwise comply with these Terms or any related agreement, Omron may (without liability and in addition to other remedies) cancel any unshipped portion of Products sold hereunder and stop any Products in transit until Buyer pays all amounts, including amounts payable hereunder, whether or not then due, which are owing to it by Buyer. Buyer shall in any event remain liable for all unpaid accounts.
9. **Cancellation; Etc.** Orders are not subject to rescheduling or cancellation unless Buyer indemnifies Omron against all related costs or expenses.
10. **Force Majeure.** Omron shall not be liable for any delay or failure in delivery resulting from causes beyond its control, including earthquakes, fires, floods, strikes or other labor disputes, shortage of labor or materials, accidents to machinery, acts of sabotage, riots, delay in or lack of transportation or the requirements of any government authority.
11. **Shipping; Delivery.** Unless otherwise expressly agreed in writing by Omron:
 - a. Shipments shall be by a carrier selected by Omron; Omron will not drop ship except in "break down" situations.
 - b. Such carrier shall act as the agent of Buyer and delivery to such carrier shall constitute delivery to Buyer;
 - c. All sales and shipments of Products shall be FOB shipping point (unless otherwise stated in writing by Omron), at which point title and risk of loss shall pass from Omron to Buyer; provided that Omron shall retain a security interest in the Products until the full purchase price is paid;
 - d. Delivery and shipping dates are estimates only; and
 - e. Omron will package Products as it deems proper for protection against normal handling and extra charges apply to special conditions.
12. **Claims.** Any claim by Buyer against Omron for shortage or damage to the Products occurring before delivery to the carrier must be presented in writing to Omron within 30 days of receipt of shipment and include the original transportation bill signed by the carrier noting that the carrier received the Products from Omron in the condition claimed.
13. **Warranties.** (a) **Exclusive Warranty.** Omron's exclusive warranty is that the Products will be free from defects in materials and workmanship for a period of twelve months from the date of sale by Omron (or such other period expressed in writing by Omron). Omron disclaims all other warranties, express or implied. (b) **Limitations.** OMRON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCTS. BUYER ACKNOWLEDGES THAT IT ALONE HAS DETERMINED THAT THE PRODUCTS WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE. Omron further disclaims all warranties and responsibility of any type for claims or expenses based on infringement by the Products or otherwise of any intellectual property right. (c) **Buyer Remedy.** Omron's sole obligation hereunder shall be, at Omron's election, to (i) replace (in the form originally shipped with Buyer responsible for labor charges for removal or replacement thereof) the non-complying Product, (ii) repair the non-complying Product, or (iii) repay or credit Buyer an amount equal to the purchase price of the non-complying Product; provided that in no event shall Omron be responsible for warranty, repair, indemnity or any other claims or expenses regarding the Products unless Omron's analysis confirms that the Products were properly handled, stored, installed and maintained and not subject to contamination, abuse, misuse or inappropriate modification. Return of any Products by Buyer must be approved in writing by Omron before shipment. Omron Companies shall not be liable for the suitability or unsuitability or the results from the use of Products in combination with any electrical or electronic components, circuits, system assemblies or any other materials or substances or environments. Any advice, recommendations or information given orally or in writing, are not to be construed as an amendment or addition to the above warranty. See <http://www.omron247.com> or contact your Omron representative for published information.
14. **Limitation on Liability; Etc.** OMRON COMPANIES SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCTS, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE OR STRICT LIABILITY. Further, in no event shall liability of Omron Companies exceed the individual price of the Product on which liability is asserted.
15. **Indemnities.** Buyer shall indemnify and hold harmless Omron Companies and their employees from and against all liabilities, losses, claims, costs and expenses (including attorney's fees and expenses) related to any claim, investigation, litigation or proceeding (whether or not Omron is a party) which arises or is alleged to arise from Buyer's acts or omissions under these Terms or in any way with respect to the Products. Without limiting the foregoing, Buyer (at its own expense) shall indemnify and hold harmless Omron and defend or settle any action brought against such Companies to the extent based on a claim that any Product made to Buyer specifications infringed intellectual property rights of another party.
16. **Property; Confidentiality.** Any intellectual property in the Products is the exclusive property of Omron Companies and Buyer shall not attempt to duplicate it in any way without the written permission of Omron. Notwithstanding any charges to Buyer for engineering or tooling, all engineering and tooling shall remain the exclusive property of Omron. All information and materials supplied by Omron to Buyer relating to the Products are confidential and proprietary, and Buyer shall limit distribution thereof to its trusted employees and strictly prevent disclosure to any third party.
17. **Export Controls.** Buyer shall comply with all applicable laws, regulations and licenses regarding (i) export of products or information; (ii) sale of products to "forbidden" or other proscribed persons; and (iii) disclosure to non-citizens of regulated technology or information.
18. **Miscellaneous.** (a) **Waiver.** No failure or delay by Omron in exercising any right and no course of dealing between Buyer and Omron shall operate as a waiver of rights by Omron. (b) **Assignment.** Buyer may not assign its rights hereunder without Omron's written consent. (c) **Law.** These Terms are governed by the law of the jurisdiction of the home office of the Omron company from which Buyer is purchasing the Products (without regard to conflict of law principles). (d) **Amendment.** These Terms constitute the entire agreement between Buyer and Omron relating to the Products, and no provision may be changed or waived unless in writing signed by the parties. (e) **Severability.** If any provision hereof is rendered ineffective or invalid, such provision shall not invalidate any other provision. (f) **Setoff.** Buyer shall have no right to set off any amounts against the amount owing in respect of this invoice. (g) **Definitions.** As used herein, "including" means "including without limitation"; and "Omron Companies" (or similar words) mean Omron Corporation and any direct or indirect subsidiary or affiliate thereof.

Certain Precautions on Specifications and Use

1. **Suitability of Use.** Omron Companies shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Product in the Buyer's application or use of the Product. At Buyer's request, Omron will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Product. This information by itself is not sufficient for a complete determination of the suitability of the Product in combination with the end product, machine, system, or other application or use. Buyer shall be solely responsible for determining appropriateness of the particular Product with respect to Buyer's application, product or system. Buyer shall take application responsibility in all cases but the following is a non-exhaustive list of applications for which particular attention must be given: (i) Outdoor use, uses involving potential chemical contamination or electrical interference, or conditions or uses not described in this document. (ii) Use in consumer products or any use in significant quantities. (iii) Energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government regulations. (iv) Systems, machines and equipment that could present a risk to life or property. Please know and observe all prohibitions of use applicable to this Product. NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY OR IN LARGE QUANTITIES WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON'S PRODUCT IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.
2. **Programmable Products.** Omron Companies shall not be responsible for the user's programming of a programmable Product, or any consequence thereof.
3. **Performance Data.** Data presented in Omron Company websites, catalogs and other materials is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of Omron's test conditions, and the user must correlate it to actual application requirements. Actual performance is subject to the Omron's Warranty and Limitations of Liability.
4. **Change in Specifications.** Product specifications and accessories may be changed at any time based on improvements and other reasons. It is our practice to change part numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the Product may be changed without any notice. When in doubt, special part numbers may be assigned to fix or establish key specifications for your application. Please consult with your Omron's representative at any time to confirm actual specifications of purchased Product.
5. **Errors and Omissions.** Information presented by Omron Companies has been checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical or proofreading errors or omissions.

OMRON AUTOMATION AND SAFETY • THE AMERICAS HEADQUARTERS • Hoffman Estates, IL USA • 847.843.7900 • 800.556.6766 • www.omron247.com

OMRON CANADA, INC. • HEAD OFFICE

Toronto, ON, Canada • 416.286.6465 • 866.986.6766 • www.omron247.com

OMRON ELECTRONICS DE MEXICO • HEAD OFFICE

México DF • 52.55.59.01.43.00 • 01-800-226-6766 • mela@omron.com

OMRON ELECTRONICS DE MEXICO • SALES OFFICE

Apodaca, N.L. • 52.81.11.56.99.20 • 01-800-226-6766 • mela@omron.com

OMRON ELETRÔNICA DO BRASIL LTDA • HEAD OFFICE

São Paulo, SP, Brasil • 55.11.2101.6300 • www.omron.com.br

OMRON ARGENTINA • SALES OFFICE

Cono Sur • 54.11.4783.5300

OMRON CHILE • SALES OFFICE

Santiago • 56.9.9917.3920

OTHER OMRON LATIN AMERICA SALES

54.11.4783.5300

OMRON EUROPE B.V. • Wegalaan 67-69, NL-2132 JD, Hoofddorp, The Netherlands. • +31 (0) 23 568 13 00 • www.industrial.omron.eu

Authorized Distributor:

Automation Control Systems

- Machine Automation Controllers (MAC) • Programmable Controllers (PLC)
- Operator interfaces (HMI) • Distributed I/O • Software

Drives & Motion Controls

- Servo & AC Drives • Motion Controllers & Encoders

Temperature & Process Controllers

- Single and Multi-loop Controllers

Sensors & Vision

- Proximity Sensors • Photoelectric Sensors • Fiber-Optic Sensors
- Amplified Photomicrosensors • Measurement Sensors
- Ultrasonic Sensors • Vision Sensors

Industrial Components

- RFID/Code Readers • Relays • Pushbuttons & Indicators
- Limit and Basic Switches • Timers • Counters • Metering Devices
- Power Supplies

Safety

- Laser Scanners • Safety Mats • Edges and Bumpers • Programmable Safety Controllers • Light Curtains • Safety Relays • Safety Interlock Switches