TIA-1005-A M.I.C.E Rated Product Selection Guide







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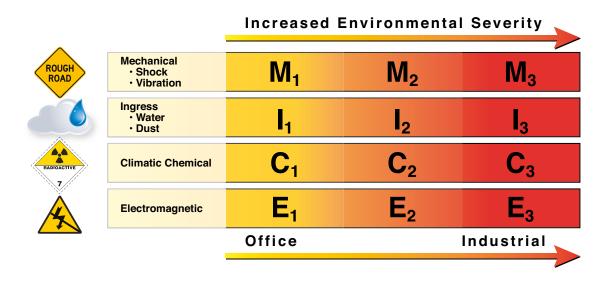
When designing the physical infrastructure to support network communications in a manufacturing location, TIA-1005-A is a standard that must be considered.

According to the TIA-1005-A standard, there are three basic types of industrial areas:

- Factory Floor
- Work Area
- Automation Island

Designing for the manufacturing environment requires an intimate knowledge of these areas to ensure the infrastructure supports the different environments found on the plant floor. Considerations such as shock and vibration, handling of water or dust, temperature, washdown areas, exposure to acids or oil mixtures and electromagnetic noise must be taken into account when selecting solutions to support these harsh environments.

Environmental classifications and ratings based on Mechanical, Ingress, Climatic/Chemical, Electro Magnetic (M.I.C.E) attributes provide a method of categorizing the environmental classes required for each of the industrial areas and are rated as 1 = low, 2 = medium, and 3 = high.



Whether you are designing for the factory floor, work area or automation island, Panduit offers solutions that meet the TIA-1005-A M.I.C.E guidelines. This selection guide provides the industrial physical infrastructure designer with detailed M.I.C.E information about each of Panduit's network products typically considered in industrial environments. For an expanded offering of level 1 parts that may be used in your industrial network, visit panduit.com/networkpartsamerica or the online catalog at panduit.com.

For additional information on M.I.C.E ratings contact our technical support team at techsupport@panduit.com or call 800-777-3300.

For more information about the TIA-1005-A standard, visit tiaonline.org.

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			M	CE						IV	lecha	anic	al				Ingr	ess				Clim	natic/	Che	mica				ΕN	ИΙ
		(Fi	nal		ng)			N	/ 1 ₂					M ₃			l ₂	l ₃			C ₂					C ₃			E ₂	E ₃
LEGEND: • = Acceptable for use in Environment x = Not Acceptable	NOTE: In the case a lower MICE rated part is needed to be used in a higher MICE rated environment please contact Tech Support for further guidance on the application.					100 ms-1	7mm/20ms-1	300N	N/150mm	10)		250 ms-1	15mm/50 ms-1	2					-25°C to +70°C	See C3	E			-40°C to +70°C	3,0 °C/min	1120 W/m² < 500 ppm				
for use in Environment - = Not Applicable c = Contact Tech Support	*Tensile Connected: This aspect of environmental classification is installation specific and should be considered in association with IEC 61918 and the appropriate component specification. The 300 and 500 N numbers were used as a reference to differentiate the levels.	M	1	С	E	shock	vibration	*Tensile Connected	compression	impact resistance	torsion	shock	vibration	*Tensile Connected	impact resistance	torsion		IP 67	operation temp.	sun radiation	oil resistance	res. liquid chemicals	res. gaseous agents	operation temp.	temp. change	sun radiation	res. liquid chemicals	res. gaseous agents		
Part Number	Product Description																													
Copper Cable																														
Category 7 PSMD7004WG-LED	Copper cable, MUD-resistant, Category 7, 4-pair, 22 AWG stranded, S/FTP, LSZH (IEC 60332-3), SHF2, window Gray, Euro pallet, 1640 ft./500m reel.	2	_	2	2	•	•	_	•	•	•						-			•	•	С	С	•		•			•	
PSDMA7004WG-LED	Copper cable, armored, MUD-resistant, Category 7, 4-pair, 22 AWG stranded, S/FTP, LSZH (IEC 60332-3), SHF2, window Gray, Euro pallet, 1640 ft./500m reel.	2	-	2	2	•	•	-	•	•	•						-			•	•	С	С	•		•			•	
PSM7004BU-KEM	Copper cable, Category 7, 4-pair, 23 AWG, S/FTP, LSZH, Blue, Euro pallet, 3280 ft./1000m reel.	2	-	2	2	•	•	_	•	•	•						_			•	•	С	С	•		•			•	
Category 6A																														
ISX6X04A*-LED	Copper cable, industrial, Category 6A 4-pair, 24/7 AWG stranded, S/FTP, PUR, 1640 ft./500m reel.	2	-	2	2	•	•	-	•	•	•						-			•	•	С	С	•		•			•	
ISFCH6X04A*-UG	Copper cable, industrial, 600V, Category 6A, High Flex, 4-pair, 24/7 AWG stranded, SF/UTP, CM, 1000 ft./305m reel.	2	-	2	2	•	•	-	•	•	•						-			•	•	С	С	•		•			•	
ISFCH6X04B*-UG	Copper cable, industrial, 600V, Category 6A, High Flex, 4-pair, 26/7 AWG stranded, SF/UTP, CM, 1000 ft./305m reel.	2	-	2	2	٠	•	-	•	٠	•						-			•	•	С	С	•		•			•	
PUP6AV04*-G	Copper cable, Category 6A, 4-pair, 23 AWG stranded, UTP, CMP, 1,000 ft./305m reel.	1	-	1	1	х	-	х	х	х	х						_		X	x >	х	x	x						x	
Category 6	Occasional desired and a contract of the contr																													
ISX6004A*-LED	Copper cable, industrial, Category 6, 4-pair, 24/7 AWG stranded, S/FTP, PUR, 1640 ft./500m reel.	2	-	2	2	•	•	-	•	•	•						-			•	•	С	С	•		•			•	
IFRH6C04*-UG	Copper cable, industrial, 600V, Category 6, 4-pair, 23/1 AWG, F/UTP, CMR, Black, 1000 f.t/305m reel.	2	-	2	2	٠	•	-	•	•	٠						_		-20	•	•	С	С			•			•	
IUC6C04A*-CEG	Copper cable, industrial, Category 6, 4-pair, 24/7 AWG stranded, U/UTP, CM, 1000 ft./305m reel.	2	-	2	1	•	•	-	•	•	•						-		-20	•	•	С	С			•			х	
Category 5e ISFCH5C02A*-XG	Conner cable industrial 600V Category Eq. High Floy 2 pair 24/7 MMC																													
	Copper cable, industrial 600V, Category 5e, High Flex, 2-pair, 24/7 AWG stranded, SF/UTP, CM, 1000 ft./305m reel.	2	-	2	2	•	•	-	•	•	•						-			•	•	С	С	•		•			•	
ISFCH5C04A*-XG	Copper cable, industrial 600V, Category 5e, High Flex, 4-pair, 24/7 AWG stranded, SF/UTP, CM, 1000 ft./305m reel.	2	-	2	2	•	•	-	•	•	•						-			•	•	С	С	•		•			•	
ISFX5502A*-LED	Copper cable, industrial, Category 5e, 2-pair, 24/7 AWG stranded, SF/UTP, PUR, 1640 ft./500m reel.	2	_	2	2	٠	•	-	•	•	•						_			•	•	С	С	•		•			•	
IFC5C04B*-CEG	Copper cable, industrial, Category 5e, 4-pair, 26/7 AWG stranded, F/UTP, CM, 1000 ft./305m reel.	2	-	2	2	•	•	-	•	•	•						-		-20	•	•	С	С			•			•	
IFRH5C02*-UG	Copper cable, industrial, 600V, Category 5e, 2-pair, 24/1 AWG solid, F/UTP, CMR, 1000 ft./305m reel.	2	-	2	2	٠	•	-	•	•	•						-		-20	•	•	С	С			•			•	
IFRH5C04*-UG	Copper cable, industrial, 600V, Category 5e, 4-pair, 24/1 AWG solid, F/UTP, CMR, 1000 ft./305m reel.	2	-	2	2	٠	•	-	•	•	•						_		-20	•	•	С	С			•			•	
IURHT5C04*-UG	Copper cable, industrial 600V PLTC, Category 5e, 4-pair, 22/1 AWG, U/UTP, CMR, 1000 ft./305m reel.	2	-	2	1	·	•	-	•	•	•						_		-20	•	•	С	С			•			х	
IUC5C04A*-CEG	Copper cable, industrial, Category 5e, 4-pair, 24/7 AWG stranded, U/UTP, CM, 1000 ft./305m reel.	2	-	2	1	•	•	-	•	•	•						-		-20	•	•	С	С			•			x	

^{*}Available in multiple colors.

																De	taile	a Wil	UE H	atin	ıg									
			М	ICE						Ме	char	nical					Ingre	ess				Cli	mai	tic/Cl	emi	cal				
		(F	inal		ng)			M	2				ı	M ₃			l ₂	l ₃			C,	2					C ₃			
LEGEND: = Acceptable for use in Environment	NOTE: In the case a lower MICE rated part is needed to be used in a higher MICE rated environment please contact Tech Support for further guidance on the application.					100 ms-1	7mm/20ms-1	Z	1100N/150mm		7	250 ms-1 15mm/50 ms-1		2200N/150mm					-25°C to +70°C	1,0 °C/min	క్ర	< 5,0 ppm		J°02+ 04 J°07	30°C/min	1120 W/m²	500 ppm	L L		
= Not Acceptable						100	m/	300N	100	ี ∣	Č	<u> </u>	N	22(307				-52	ر ٥,	See	۷ ک		7	7 6	112	5 5	;		
for use in Environment - = Not Applicable = Contact Tech Support	*Tensile Connected: This aspect of environmental classification is installation specific and should be considered in association with IEC 61918 and the appropriate component specification. The 300 and 500 N numbers were used as a reference to differentiate the levels.	M	1	С	Е	shock	vibration	*Tensile Connected	compression	impact resistance	torsion	snock	*Tensile Connected	compression	impact resistance	torsion	IP 54/65	IP 67	operation temp.	temp. change	sun radiation	oil resistance	Tes. Ilquia orientican	res. gaseous agents	demo change	sun radiation	oil resistance	res. liquid chemicals	res. gaseous agents	
art Number	Product Description																													
Copper Connectivity Category 6A	1																													
AEBH6XS	IndustrialNet™ Variant 1 bulkhead, Category 6A, Shielded Connector	3	3	2	2							4 •	_	•	•	•		•	-20	•		• (0	С		•				
AEBH6X	IndustrialNet™ Variant 1 bulkhead, Category 6A, UTP Connector	3	3	2	1								_		•	•		•	-20	•		• (С		•				
CJSM6X88TG	Category 6A, RJ45, 8-position, 8-wire, marine universal module.	2	1	1	2	•	•	_	x :	x	-						х			х		x x	ĸ	х						
J6X88TG*	Category 6A, RJ45, 8-position, 8-wire, IP 40, universal module.	1	1	1	1	х	х	х	x	х	х						х		х	х	х	x >	X	х						
SPS688FA	IndustrialNet [™] , Category 6A, 8-Position, Shielded, Field Terminable, RJ45 Modular Plug (conductor diameter 1.0 – 1.6mm).	1	1	1	2	•	•	-	x :	х	_						x			х		x >	K	x ·	,					
SPS688FAS	IndustrialNet [™] , Category 6A, 8-Position, Shielded, Field Terminable, RJ45 Modular Plug (conductor diameter 0.85 – 1.0mm).	1	1	1	2	٠	•	-	x	х	_						x			х		x >	K	х						
SPS6A88MFA	IndustrialNet [™] , Category 6A, Field Terminable, M12 X-Code Plug.	3	3	1	2							• •	_	•	•	_		•	•						•		•	•	С	;
AEBHV56XS	Industrial variant 5 STP category 6A bulkhead connector.	3	3	2	2								T-	•	•	•		•	-20	•		• (2	С		•				
MPSIV56XT	Industrial variant 5 STP category 6A RJ45 modular plug.	3	3	2	2								T-	•	•	•		•	-20	•		• (0	С		•				
Category 6																														
AEBH6S	IndustrialNet™ Variant 1 bulkhead, Category 6, Shielded Connector.	3	3	2	2							• •	-	•	•	•		•	-20	•		• (2	С		•				
AEBH6	IndustrialNet™ Variant 1 bulkhead, Category 6, UTP Connector.	3	3	2	1								-	•	•	•		•	-20	•		• (0	С		•				
SJ688TG	IndustrialNet [™] , Category 6, Shielded Connector, for use in bulkhead assembly IAEBH6S.	3	3	2	2								_	•	•	•		•	-20	•		• (3	С		•				
J688TG	IndustrialNet [™] , Category 6, UTP Connector, for use in bulkhead assembly IAEBH6.	3	3	2	1							• •	-	•	•	•		•	-20	•		• (5	С		•				
AEBHC6	IndustrialNet [™] , Category 6, UTP Coupler Connector.	3	3	2	1								T-	•	•	•		•	-20	•		• (2	С		•				
AEBHUSBAA	IndustrialNet [™] Variant 1 bulkhead, USB 2.0 Female A to Female A Coupler Module.	3	3	2	2								_	•	•	•		•	-20	•		• (3	С		•				
Category 5e STPHCH0.3TL	IndustrialNet [™] , Category 5e Shielded, 600V, Patch Cord. Additional lengths available, replace 0.3 with 0.6, 1M, 1.5M, 2M, 2.5M, 3M, 3.5M, 4M, 4.5M, 5M, 7M, or 10M.	1	1	1	2	•	•	-	x :	x	•						х		x	х	х	x x	ĸ	х						
AEBH5ES	IndustrialNet [™] Variant 1 bulkhead, Category 5e, Shielded Connector.	3	3	2	2								-	•	•	•		•	-20	•		• (0	С						
AEBH5E	IndustrialNet™ Variant 1 bulkhead, Category 5e, UTP Connector.	3	3	2	1								-			•		•	-20	•		• (С	С		•				
SJ5E88TG	IndustrialNet [™] , Category 5e, Shielded Connector, for use in bulkhead assembly IAEBH5ES.	3	3	2	2							• •	-	•	•	•		•	-20	•		• (2	С		•				
J5E88TG	IndustrialNet [™] , Category 5e, UTP Connector, for use in bulkhead assembly IAEBH5E.	3	3	2	1							•	-	•	•	•		•	-20	•		• ()	С		•				
AEBHC5E	IndustrialNet™ Variant 1 bulkhead, Category 5e, UTP Coupler Connector.	3	3	2	1							• •	-	•	•	•		•	-20	•		• (3	С		•				
MPSI588T	Category 5e, 24 AWG, shielded modular plug with bulkhead.	3	3	2	2								-	•	•	•		•	-20	•		• (5	С		•				
/IPI588T	Category 5e, 24 AWG, shielded modular plug with bulkhead.	3	3	2	2								-	•	•	•		•	-20	•		• (С	С		•				
SPS5E44MFA	IndustrialNet [™] , Category 5e, M12 D-Code, Field Terminable Modular Plug.	3	3	1	2								-			_			•										С	;

																D	etail	ed M	ICE	Rati	ng									
			М	ICE						M	echa	anic	al				Ing	ress				С	limat	ic/Ch	emi	cal				ЕМІ
		(Fi		Rati	ng)			M	l ₂					M ₃			l ₂	l ₃			С	2					C ₃		E	_ E
LEGEND: • = Acceptable for use in Environment x = Not Acceptable	NOTE: In the case a lower MICE rated part is needed to be used in a higher MICE rated environment please contact Tech Support for further guidance on the application.					100 ms-1	7mm/20ms-1	300N	1100N/150mm	107		250 ms-1	15mm/50 ms-1	2	2200N/150mm				-25°C to +70°C	1,0 °C/min		< 5,0 ppm		-40°C to +70°C	dim)0.00	1120 W/m²	< 500 ppm			
for use in Environment = Not Applicable c = Contact Tech Support	*Tensile Connected: This aspect of environmental classification is installation specific and should be considered in association with IEC 61918 and the appropriate component specification. The 300 and 500 N numbers were used as a reference to differentiate the levels.	М	1	С	Е	shock	vibration	*Tensile Connected		resistance	torsion	shock		nected	compression		IP 54/65	IP 67	operation temp.	temp. change	sun radiation		res. liquid chemicals	res. gaseous agents			oil resistance	res. liquid chemicals		
Part Number	Product Description																													
Copper Connectivity USB	(continuea)																													
IAPCMUSBAA*	Industrial Mini-Com® USB 2.0 Female A/Female A Coupler.	1	1	1	1	х	х	_	х	Х	_						Х		Х	х	Х	х	х	Х)	x
M12 Adapters	·																													
ICAM12DRJS	IndustrialNet [™] , M12 D-Code Female to RJ45 Jack, Panel Mount Adapter.	1	1	1	2	•	•	-	Х	Х	-						X	Х	•	•	Х	•	С	С					•	•
ICAM12XRJS	IndustrialNet™, M12 X-Code Female to RJ45 Jack, Panel Mount Adapter.	1	1	1	2	•	•	-	х	х	-						х	Х	•	•	Х	•	С	С					•	•
ICAM12X90RJS	IndustrialNet [™] , M12 X-Code, Female to 90° RJ45 Jack, Panel Mount Adapter.	1	1	1	2	•	•	_	х	х	_						x	х	•	•	x	•	С	С					•	
Connectivity Access																														
ISPS688FAS-WM	Cateogory 6A replacement wire managers for RJ45 plug for use with ISPS688FAS.	_	_	_	-	_	_	-	-	_	_						_		_	-	-	-	-	-					-	-
ISPS688FA-WM	Cateogory 6A replacement wire managers for RJ45 plug for use with ISPS688FA.	-	_	-	-	-	_	-	-	-	_						_		_	-	-	-	-	-					-	-
IAEBHV5C	Industrial variant 5 bulkhead connector cap.	3	3	2	2							•	•	-	•	• •		•	-20	•		•	С	С		•			•	•
MPIV5C	Industrial variant 5 bulkhead modular plug cap.	3	3	2	2							•	•	-	•	• •		•	-20	•		•	С	С		•			•	•
Copper Patch Cords Category 6A																														
ISTPH6X0.3TL	IndustrialNet [™] , Category 6A Shielded, 600V, Patch Cord. Additional lengths available, replace 0.3 with 0.6, 1M, 1.5M, 2M, 2.5M, 3M, 3.5M, 4M, 4.5M, 5M, 7M, or 10M.		1	1	2	•	•	-	x	x	•						x		x	x	x	x	x	x					•	•
ISTP6X**	IndustrialNet [™] , Category 6A, Shielded, Patch Cord with Caps.	3	3	2	2							•	•	-	•	• •		•	-20	•		•	С	С		•			•	,
ISTP6X**R	IndustrialNet™, Category 6A, Shielded, Patch Cord Hybrid with Caps.	3	3	2	2							•	•	-	•	• •		•	-20	•		•	С	С		•			•	•
UTP6A***	Category 6A, UTP patch cord. IndustrialNet™, Category 6A, M12 X-Code, Overmolded Cordsets.	1	1	1	1	Х	Х	Х	Х	Х	Х						Х		Х	Х	Х		Х						×	
	industrialiset , Category oA, W12 A-Code, Overmolded Coldsets.	3	3	2	2							•	•	-	•	• •		•		•		•	С	С	<u> </u>	•			•	•
Category 6 ISTPSPNC**	IndustrialNet [™] , Category 6, Shielded, Stranded Patch Cord.	3	3	2	2									_					-20	•		•	С	c					,	
IUTPSP**	IndustrialNet™, Category 6, UTP, Stranded Patch Cord with Caps.	3	3	2	1														-20				С						×	
IUTPSPNC**	IndustrialNet [™] , Category 6, UTP, Stranded Patch Cord.			+	1							•		_					-20				С							K
Category 5e																														
ISTPCH**Y	IndustrialNet [™] , Category 5e, Shielded, Stranded Patch Cord with Caps.	3	3	2	2							•	•	-	•			•	-20	•		•	С	С		•			4	•
ISTPCHNC**Y	IndustrialNet [™] , Category 5e, Shielded, Stranded Patch Cord.	3	3	2	2							•	•	-				•	-20	•		•	С	С		•			•	•
IUTPCH**Y	IndustrialNet™, Category 5e, UTP, Stranded Patch Cord with Caps.	3	3	2	1								•	-					-20	•		•	С	С		•			х	<
IUTPCHNC**Y	IndustrialNet [™] , Category 5e, UTP, Stranded Patch Cord.	3	3		1							•	•	_					-20				С						х	
ICD^	IndustrialNet [™] , Category 5e, M12 D-Code, Overmolded Cordsets.		3	2	2																			c •						
'Available in multiple c						****A	vaila	able	in m	uliple	e col	ors a	and fi	iber c				^A	vailal	ble ir	n mu						lengt	hs.		

																D	etail	ed M	ICE I	Rati	ng										
			N/II	CE						Mo	echa	anica	al				Ing	ress				C	Clima	tic/CI	nem	ical				E	MI
		(Fi		C⊑ Ratir	ng)			N	l ₂					Ma			l,	l ₃			С	,					C ₃			E ₂	E ₃
LEGEND: • = Acceptable for use in Environment x = Not	NOTE: In the case a lower MICE rated part is needed to be used in a higher MICE rated environment please contact Tech Support for further guidance on the application.					100 ms-1	7mm/20ms-1	300N	JN/150mm	107		250 ms-1	15mm/50 ms-1		2200N/150mm 20.1				-25°C to +70°C	1,0 °C/min		< 5,0 ppm		-40°C to ±70°C	2	3,0 °C/min 1120 W/m²					
Acceptable for use in Environment - = Not Applicable c = Contact Tech Support	*Tensile Connected: This aspect of environmental classification is installation specific and should be considered in association with IEC 61918 and the appropriate component specification. The 300 and 500 N numbers were used as a reference to differentiate the levels.	M	1	С	E	shock	vibration	*Tensile Connected	compression	resistance				ected	compression		IP 54/65	IP 67	ď.	Ф				res. gaseous agents		temp. cnange		nicals	res. gaseous agents		
Part Number	Product Description																														
Fiber Distribution Fiber Connectivity																															
IAEF7JMA	IndustrialNet™ LC Duplex Fiber Optic Bulkhead Adapter.	-	3	2	3							•	•	-	•	•		•	-20	•		•	С	С							•
Fiber Patch Cords	•																														
IAEF617P-7PM**	Industrial LC to LC multimode duplex patch cord – 62.5/125µm.	3	3	2	3							•	•	-	•	•		•	-20	•		•	С	С			•				•
IAEF617P-NM**	Industrial LC to pigtail multimode duplex pigtail – 62.5/125μm.	3	3	2	3							•	•	-	•	•		•	-20	•		•	С	С		'	•				•
Pre-Configured M																															
MDC48D	Pre-configured micro data center, 24 RU, includes two side panels, network cabling, patch panels, cable management, grounding, casters, shock pallet and ramp.	-	1	С	2	-	-	-	-	-	-						x		х	x	x	х	x	x						•	
MDC79	Pre-configured micro data center, 42 RU, includes two side panels, network cabling, patch panels, cable management, grounding, and casters.	_	1	С	2	-	_	_	_	-	-						x		x	x	х	х	х	x						•	
MDC79D	Pre-configured micro data center, 42 RU, includes two side panels, network cabling, patch panels, cable management, grounding, casters, shock pallet and ramp.	-	1	С	2	-	_	_	_	-	-						x		x	х	х	х	х	x						•	
MDC82NL	NEMA Type 12, IP55, single hinge front door with windowed glass, single hinge rear door, solid side panel (1), side panel with cutout for 20k BTU AC (1), 42 RU, network cabling, patch panels, cable management, grounding, and casters. Color Light Gray. Dimensions: 78.7" H x 27.6" W x 47.2" D (2000mm x 700mm x 1200mm).	1	2	1	2	х	x	_	_	x	_						•		x	x	x	x	x	x						•	
Pre-Configured In	dustrial Distribution Frames																														
ZDF242430	Pre-configured industrial distribution frame enclosure, 12U, ready for two access or two distribution switches.	_	2	С	_	-	_	_	-	-	_						•		x	•	•	•	•	•						_	
ZDF242430-6	Pre-configured industrial distribution frame enclosure, 12U, 316 stainless steel, ready for two access or two distribution switches.	_	2	С	_	-	-	_	_	-	-						•		x	•	•	•	•	•						_	
ZDF48-RA	Pre-configured industrial distribution frame enclosure ready for two access and two distribution switches.	_	2	С	_	_	-	_	_	-	-						•		x	•	•	•	•	•						_	
ZDF48-6RA	Pre-configured industrial distribution frame enclosure, 316 stainless steel, ready for two access and two distribution switches.	_	2	С	-	-	_	-	_	-	-						•		х	•	•	•	•	•						-	
ZDF24-S24	Universal distribution frame 12U for two industrial switches, fiber tray, (1) 48-port patch panel, (1) 4U DIN mount bracket, redundant supplies AC to DC, terminal blocks, wiring for 120 V AC input.	_	2	С	-	_	_	_	_	-	-						•		х	•	•	•	•	•						-	
ZDF24-S25	Universal distribution frame 12U for two industrial switches, fiber tray, (1) 48-port patch panel, (1) 4U DIN mount bracket, (1) Maintenance-free UPS, redundant supplies AC to DC, terminal blocks, wiring for 120 V AC input.	_	2	С	-	-	_	_	_	-	-						•		х	•	•	•	•	•						_	
ZDF24-624	Universal distribution frame 12U for two industrial switches, 316 Stainless steel enclosure, fiber tray, (1) 48-port patch panel, (1) 4U DIN mount bracket, redundant supplies AC to DC, terminal blocks, wiring for 120 V AC input.	-	2	С	-	-	_	-	-	-	_						•		х	•	•	•	•	•						-	
ZDF24-625	Universal distribution frame 12U for two industrial switches, 316 Stainless steel enclosure, fiber tray, (1) 48-port patch panel, (1) 4U DIN mount bracket, (1) Maintenance-free UPS, redundant supplies AC to DC, terminal blocks, wiring for 120 V AC input.	_	2	С	_	-	_	_	_	-	_						•		х	•	•	•	•	•						-	
ZDF24-S45	Universal distribution frame 12U for four industrial switches, fiber tray, (2) 48-port patch panel, (2) 4U DIN mount bracket, (2) Maintenance-free UPSs, redundant supplies AC to DC, terminal blocks, wiring for 120 V AC input.	_	2	С	-	-	_	-	_	-	-						•		х	•	•	•	•	•						-	

^{**}Available in multiple lengths. *Available in multiple colors.

^{***}Available in multiple colors and lengths. ****Available in muliple colors and fiber counts.

																D	etaile	d M	ICE F	Ratin	g										
			MIC	F						Ме	char	nica	ıl				Ingr	ess				Cli	mati	c/Ch	emi	cal				EM	11
			al Ra		g)			M,	2					M ₃			l ₂	l ₃			C ₂						C ₃			E ₂	E ₃
LEGEND: • = Acceptable for use in Environment x = Not	NOTE: In the case a lower MICE rated part is needed to be used in a higher MICE rated environment please contact Tech Support for further guidance on the application.					100 ms-1	7mm/20ms-1		mm0c1/N0011	3	050 mg.1	Z20 IIIS-1	15mm/50 ms-1	00N/150mm	30.1				-25°C to +70°C	1,0 °C/min		10d 0.0		-40°C to +70°C	3.0 °C/min		< 500 ppm				
Acceptable for use in Environment - = Not Applicable c = Contact Tech Support	*Tensile Connected: This aspect of environmental classification is installation specific and should be considered in association with IEC 61918 and the appropriate component specification. The 300 and 500 N numbers were used as a reference to differentiate the levels.	М		С	E			ected		Impact resistance			*Tonsilo Connouted *		ance	torsion	IP 54/65		ď.	0	sun radiation	res liquid chemicals	res. daseous adents					res. liquid chemicals	res. gaseous agents		
Part Number	Product Description																														
Pre-Configured In ZDF48-S64	ndustrial Distribution Frames (continued) Universal distribution frame 26U for six industrial switches, fiber tray, (3) 48-port patch panels, (3) 4U DIN mount brackets, redundant supplies AC to DC, terminal blocks, wiring for 120 V AC input.	-	2	С	-	-	_	-	-	_	_						•		х	•	•	•	•							-	
ZDF48-S65	Universal distribution frame 26U for six industrial switches, fiber tray, (3) 48-port patch panels, (3) 4U DIN mount brackets, (3) Maintenance-free UPSs, redundant supplies AC to DC, terminal blocks, wiring for 120 V AC input.	-	2	С	-	-	_	-	-	_	-						•		х	•	•	•	•							-	
ZDF48-664	Universal distribution frame 26U for six industrial switches, 316 Stainless steel enclosure, fiber tray, (3) 48-port patch panels, (3) 4U DIN mount brackets, redundant supplies AC to DC, terminal blocks, wiring for 120 V AC input.	-	2	С	-	-	_	-	-	_	_						•		х	•	•	•	•							-	
ZDF48-665	Universal distribution frame 26U for six industrial switches, 316 Stainless steel enclosure, fiber tray, (3) 48-port patch panels, (3) 4U DIN mount brackets, (3) Maintenance-free UPSs, redundant supplies AC to DC, terminal blocks, wiring for 120 V AC input.	-	2	С	-	-	_	-	-	_	-						•		x	•	•	•	•							-	
ZDF48-S85	Universal distribution frame 26U for eight industrial switches, fiber tray, (4) 48-port patch panels, (4) 4U DIN mount brackets, (4) Maintenance-free UPSs, redundant supplies AC to DC, terminal blocks, wiring for 120 V AC input.	-	2	С	-	-	-	-	-	_	-						•		х	•	•	•	•	,						-	
Network Zone Sys																															
	ires – Category 6A Connectivity and Fiber Uplink Patch Cords and Adapto	rs																													
Z22C-SS	Pre-configured network zone system, 24" x 24", mild steel enclosure, for two industrial switches, includes (8) Category 6A STP copper patch cords and jacks, (2) MM LC fiber patch cords with (6) LC adaptors, backplane and cable management.	-	2	С	2	-	-	-	-	_	_						•		x	•	•	•	•	•						•	
Z22U-S14S	Universal network zone system, 24" x 24", mild steel enclosure, for one industrial switch, includes (8) Category 6A STP copper patch cords and jacks, (2) MM LC fiber uplink patch cords with (6) adaptors and redundant power supplies.	_	2	С	2	_	-	-	-	_	_						•		х	•	•	•	•	•						•	
Z22U-S15S	Universal network zone system, 24" x 24", mild steel enclosure, for one industrial switch, includes (8) Category 6A STP copper patch cords and jacks, (2) MM LC fiber uplink patch cords with (6) adaptors, redundant power supplies and maintenance-free UPS.		2	С	2	_	-	-	-	-	-						•		х	•	•	•	•	•						•	
	Ires – Category 6 Connectivity and Fiber Uplink Patch Cords and Adaptor	S																													
Z22C-S	Pre-Configured network zone system, 24" x 24", mild steel enclosure, for two industrial switches, includes (8) Category 6 UTP copper patch cords and jacks, (2) MM LC fiber patch cords with (6) LC adaptors, backplane and cable management.	-	2	С	1	-	-	-	-	-	-						•		x	•	•	•	•	•						x	
Z22U-S14	Universal network zone system, 24" x 24", mild steel enclosure, for one industrial switch, includes (8) Category 6 UTP copper patch cords and jacks, (2) MM LC fiber uplink patch cords with (6) adaptors and redundant power supplies.	-	2	С	1	-	-	-	-	-	-						•		x	•	•	•	•	•						x	
Z22U-\$15	Universal network zone system, 24" x 24", mild steel enclosure, for one industrial switch, includes (8) Category 6 UTP copper patch cords and jacks, (2) MM LC fiber uplink patch cords with (6) adaptors, redundant power supplies and maintenance-free UPS.	_	2	С	1	-	-	-	-	-	-						•		х	•	•	•	•	•						X	

																D	etail	ed M	ICE I	Ratii	ng								
			MI	CE.						M	echa	nica	al				Ing	ress				Cli	mati	c/Che	emic	al			ЕМІ
		(Fi	inal I		ing)			M	l,					M ₃			l,	l ₃			C,	,					C ₃	E	E ₂ E ₃
LEGEND: • = Acceptable for use in Environment x = Not Acceptable	NOTE: In the case a lower MICE rated part is needed to be used in a higher MICE rated environment please contact Tech Support for further guidance on the application.					100 ms-1	7mm/20ms-1	300N	N/150mm	107		250 ms-1	15mm/50 ms-1	2	2200IN/150IIIII				-25°C to +70°C	1,0 °C/min		< 5,0 ppm		-40°C to +70°C	3.0 °C/min				
for use in Environment - = Not Applicable c = Contact Tech Support	*Tensile Connected: This aspect of environmental classification is installation specific and should be considered in association with IEC 61918 and the appropriate component specification. The 300 and 500 N numbers were used as a reference to differentiate the levels.	M	1	С	E	shock	vibration	*Tensile Connected	compression	impact resistance	torsion	shock	vibration	*Tensile Connected	compression impact resistance	torsion	IP 54/65	IP 67	operation temp.	temp. change		oil resistance	res daseous adents	operation temp.			oil resistance	res. gaseous agents	
Part Number	Product Description								_				-						-			_			-		-		
Network Zone Syste																													
	s – Category 6A Connectivity and Fiber Uplink Patch Cords and Adapte	ors																											
Z23U-S24S	Universal network zone system, 24" x 36", mild steel enclosure, for two industrial switches, includes (16) Category 6A STP copper patch cords and jacks, (4) MM LC fiber uplink patch cords with (6) adaptors and redundant power supplies.	_	2	С	2	_	_	_	_	_	_						•		x	•	•	•							
Z23U-S25S	Universal network zone system, 24" x 36", mild steel enclosure, for two industrial switches, includes (16) Category 6A STP copper patch cords and jacks, (4) MM LC fiber uplink patch cords with (6) adaptors, redundant power supplies and (2) maintenance-free UPS.	_	2	С	2	_	_	_	_	_	_						•		x	•	•	•							
24" v 36" Enclosure	│ s - Category 6 Connectivity and Fiber Uplink Patch Cords and Adaptor																												
Z23C-S	Pre-Configured network zone system, 24" x 36", mild steel enclosure, for two industrial switches, includes (16) Category 6 UTP copper patch cords and jacks, (4) MM LC fiber patch cords with (6) adaptors, backplane and cable management.	_	2	С	1	-	_	_	_	_	_						•		x	•	•	•	•)	C
Z23U-S24	Universal network zone system, 24" x 36", mild steel enclosure, for two industrial switches, includes (16) Category 6 UTP copper patch cords and jacks, (4) MM LC fiber uplink patch cords with (6) adaptors and redundant power supplies.	-	2	С	1	-	_	_	-	-	_						•		x	•	•	•)	(
Z23U-S25	Universal network zone system, 24" x 36", mild steel enclosure, for two industrial switches, includes (16) Catetory 6 UTP copper patch cords and jacks, (4) MM LC fiber uplink patch cords with (6) adaptors, redundant power supplies and (2) maintenance-free UPS.	_	2	С	1	_	_	_	_	_	_						•		x	•	•	•)	C

															De	etaile	ed M	IICE	Ratir	ng										
			ИІСЕ						M	echa	nica	al				Ingr	ress				С	limat	ic/Ch	em	ical				E	МІ
		(Fina					N	l ₂					M ₃			l ₂	l ₃			С	2					C ₃			E ₂	E ₃
LEGEND: • = Acceptable for use in Environment x = Not Acceptable	NOTE: In the case a lower MICE rated part is needed to be used in a higher MICE rated environment please contact Tech Support for further guidance on the application.				100 ms-1	7mm/20ms-1	300N	JN/150mm	107		250 ms-1	15mm/50 ms-1		30.1				-25°C to +70°C	1,0 °C/min		< 5,0 ppm		-40°C to +70°C		3,0 °C/min	1120 W/III-	uidd ooc >			
for use in Environment - = Not Applicable c = Contact Tech Support	*Tensile Connected: This aspect of environmental classification is installation specific and should be considered in association with IEC 61918 and the appropriate component specification. The 300 and 500 N numbers were used as a reference to differentiate the levels.	М	C	E	shock	vibration	*Tensile Connected	compression	impact resistance	torsion	shock	vibration	*Tensile Connected	compression impact resistance	torsion	IP 54/65	IP 67	operation temp.	temp. change		oil resistance	res. liquid chemicals	res. gaseous agents				res. liquid chemicals	res. gaseous agents		
Part Number DIN Rail Mount and F	Product Description																													
FDME8RG	IndustrialNet [™] , 8-port, DIN Rail Fiber Optic Enclosure.	4 4		2		v		v	v							v		v	v	v	v	v	v							
CADIN1*	1-port, DIN rail mount adapter with label.			3	-	Х	_	Х	Х	_						X		X	X	X	X	Х	٨							H
CDPP8RG	IndustrialNet [™] 8-Port DIN Rail Mount Copper Patch Panel, RG.			+-	-	_	_	_	_	_						Х		_		_	_	_							-	
IAEFKSC	Industrial Ethernet enclosure fiber uplink kit – SC to MT/RJ.		- 1	1	Х	Х	_	Х	Х	_						_		Х	Х	Х	Х	Х	Х						Х	
IAEFKSP	'	– 2	2 1	-	-	_	_	-	-	_						•		Х	-	-	-	-	_						1-	
	Industrial Ethernet enclosure fiber uplink splice kit – MT-RJ or SC.	- 2	2 1	-	-	_	_	-	-	-						•		Х	-	-	-	-	-						_	•
Uninterruptible Powe UPS00100DC UPS003LSM	Uninterruptible Power Supply (UPS), 100 Watts, 24-48 VDC in/out, DIN rail mount. UPS load sense module.	1 1	1	-	-	_	_	-	-	-						-		_	-	-	-	-	_						-	
		1 1	1	-	-	_	_	-	-	-						-		_	-	-	-	-	-						_	
Data Access Port and IAPNG5EWH	Category 5e, IndustrialNet™ Data Access Port.	- 2	2 1	-	х	x	-	x	x	-						х		х	х	х	х	х	х						-	
IAPHF2MWH-X	Mini-Com®, 2-Position 1/3-Size Insert for use with IndustrialNet™ Data Access Port.	_ -	- -	-	-	_	-	-	-	-						-		_	-	-	-	-	-						-	
IAPCMBWH-X	Mini-Com®, 1-port, Blank Module Insert for use with IndustrialNet™ Data Access Port.	_ -	- -	-	-	_	-	-	-	-						-		-	-	-	-	-	-						-	
IAPHB2MWH-X	Mini-Com®, 1/3-size, Flat Insert, for use with IndustrialNet™ Data Access Port.	1 1	1	1	х	х	_	х	х	_						х		х	х	х	х	х	х						х	
IAPHD15HDCWH	15-pin, high-density female/female D-subminiature coupler, 1/3-size insert, for use with IndustrialNet [™] Data Access Port.	1 1	1	1	х	х	-	х	x	-						х		х	х	х	x	x	х						х	
IAPHD15HDSCWH	15-pin, high-density, field terminated, D-subminiature Coupler in 1/3-size insert, for use with IndustrialNet** Data Access Port.	1 1	1	1	х	Х	-	х	х	-						х		Х	х	х	х	х	Х						Х	
IAPHD9CWH	9-pin, female/female, D-subminiature coupler in 1/3-size insert, for use with IndustrialNet [™] Data Access Port.	1 1	1	1	Х	Х	_	Х	Х	-						Х		Х	Х	х	х	Х	Х						X	
Faceplates IAEFP1	Vertical, stainless steel, single gang faceplate accepts one IndustrialNet™ Bulkhead Connector or Adapter.	_ s	3 _	- _	-	_	_	_	_	_							•	_	_	_	_	_	-						_	
IAEFP2-2G	Vertical, stainless steel, double gang faceplate accepts two IndustrialNet** Bulkhead Connectors or Adapters.	_ 3	3 –	-	-	_	_	_	_	_							•	_	_	-	-	-							-	
Zone Cabling Access	·																													
PZNDVK	Zone cabling drain and vent kit, NEMA 4X rating.	_ a	3 –		-	_	_	-	-	-							•	-	-	-	-	-	-						-	
PZNF1	Zone cabling compression fitting, NEMA 6P cable diameter 0.115-0.250" (2.92mm-6.4mm).	_ 2	2 –	-	-	_	-	-	-	-						•		_	-	-	-	-							-	
PZNF2	Zone cabling compression fitting, NEMA 6P cable diameter 0.230-0.395" (6.4mm-10mm).	_ 2	2 –		-	_	_	_	_	_						•		_	_	-	-	-							-	
PZNF3	Zone cabling compression fitting, NEMA 6P cable diameter 0.170-0.450"	_ 2																												

^{*}Available in multiple colors.

