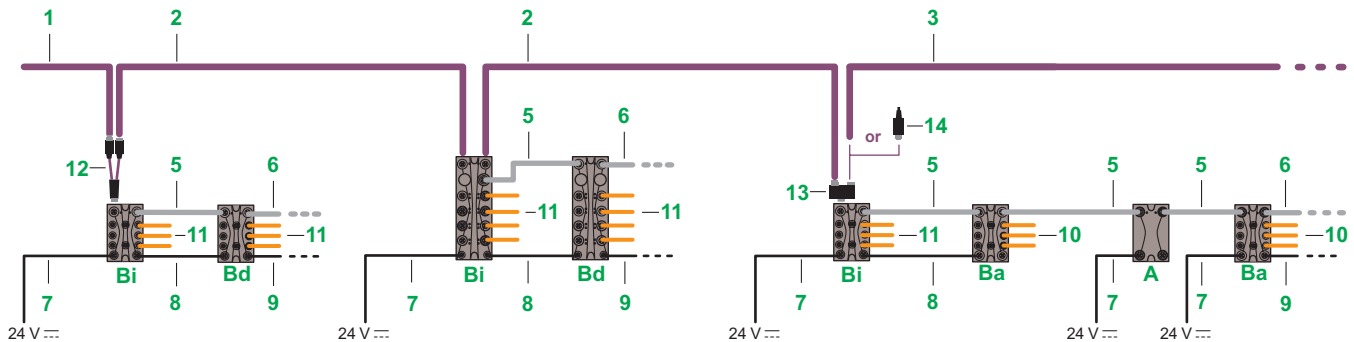


Modicon TM7

High-Performance and Safe IP67 Distributed I/O System

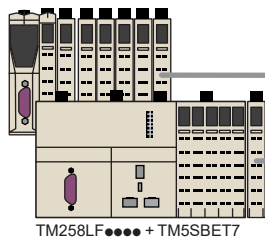
Connection components: CANopen and TM7 bus architecture

CANopen architecture

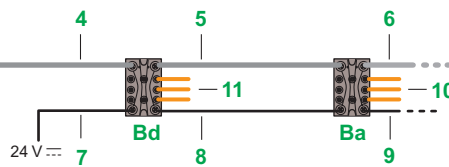


TM7 bus architecture

TM5NCO1 + TM5SBET7



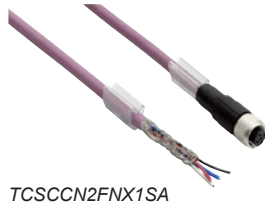
TM258LF + TM5SBET7



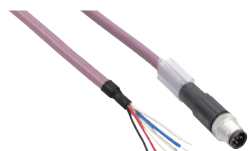
- A Power distribution block
- Ba Analog I/O expansion block
- Bd Digital I/O expansion block
- Bi CANopen interface block

Cables for connection to the CANopen bus

Designation	Description	Item	Length m/ft	Reference	Weight kg/lb
CANopen bus connection cables (bus IN)	Equipped with 1 A-coded 5-way angled female M12 connector at one end and flying leads at the other	1	1/3.28	TCSCCN2FNX1SA	0.089/0.196
			3/9.843	TCSCCN2FNX3SA	0.195/0.430
			10/32.81	TCSCCN2FNX10SA	0.563/1.241
	Equipped with 1 A-coded 5-way straight female M12 connector at one end and flying leads at the other	1	25/82.02	TCSCCN2FNX25SA	1.352/2.981
			1/3.28	TCSCCN1FNX1SA	0.089/0.196
			3/9.843	TCSCCN1FNX3SA	0.195/0.430
CANopen bus daisy chain cables	Equipped with 2 A-coded 5-way angled M12 connectors, 1 male and 1 female	2	10/32.81	TCSCCN1FNX10SA	0.563/1.241
			25/82.02	TCSCCN1FNX25SA	1.352/2.981
			0.3/0.98	TCSCCN2M2F03	0.090/0.198
	Equipped with 2 A-coded 5-way straight M12 connectors, 1 male and 1 female	2	1/3.28	TCSCCN2M2F1	0.127/0.280
			2/6.56	TCSCCN2M2F2	0.179/0.395
			5/16.40	TCSCCN2M2F5	0.337/0.743
CANopen bus connection cables (bus OUT)	Equipped with 1 A-coded 5-way angled male M12 connector at one end and flying leads at the other	3	10/32.81	TCSCCN2M2F10	0.600/1.323
			15/49.21	TCSCCN2M2F15	0.863/1.903
			0.3/0.98	TCSCCN1M1F03	0.090/0.198
	Equipped with 1 A-coded 5-way straight male M12 connector at one end and flying leads at the other	3	1/3.28	TCSCCN1M1F1	0.127/0.280
			2/6.56	TCSCCN1M1F2	0.179/0.395
			5/16.40	TCSCCN1M1F5	0.337/0.743
TM7 bus expansion cables	Equipped with 1 A-coded 5-way angled male M12 connector at one end and flying leads at the other	3	10/32.81	TCSCCN1M1F10	0.600/1.323
			15/49.21	TCSCCN1M1F15	0.863/1.903
			1/3.28	TCSCCN2MNX1SA	0.089/0.196
	Equipped with 1 A-coded 5-way straight male M12 connector at one end and flying leads at the other	3	3/9.843	TCSCCN2MNX3SA	0.195/0.430
			10/32.81	TCSCCN2MNX10SA	0.563/1.241
			25/82.02	TCSCCN2MNX25SA	1.352/2.981
TM7 bus expansion cables (bus IN)	Equipped with 1 B-coded 4-way angled female M12 connector at one end and flying leads at the other	4	1/3.28	TCSCCN1MNX1SA	0.089/0.196
			3/9.843	TCSCCN1MNX3SA	0.195/0.430
			10/32.81	TCSCCN1MNX10SA	0.563/1.241
	Equipped with 1 B-coded 4-way straight female M12 connector at one end and flying leads at the other	4	25/82.02	TCSCCN1MNX25SA	1.352/2.981
			1/3.28	TCSXCN2FNX1E	0.089/0.196
			3/9.843	TCSXCN2FNX3E	0.195/0.430

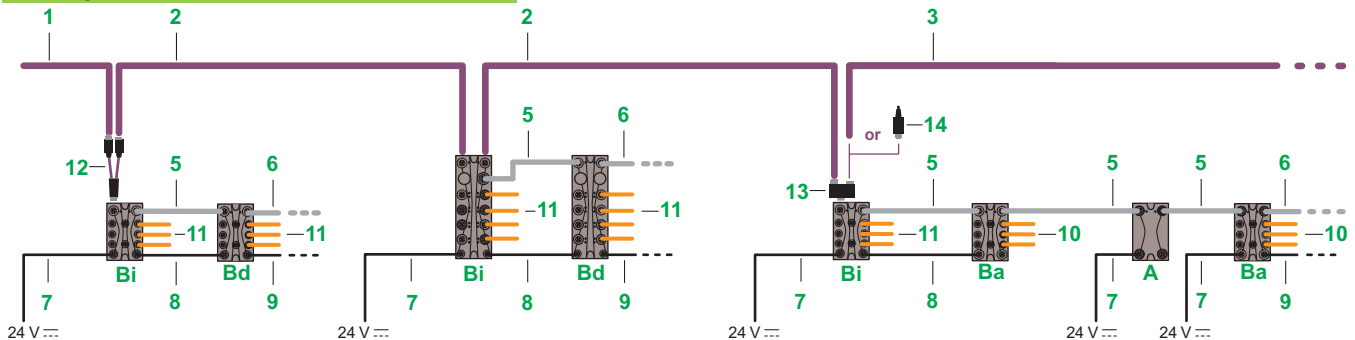


TCSCCN2FNX1SA



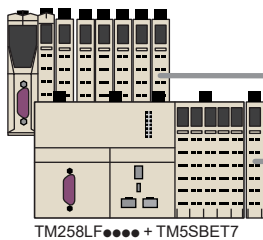
TCSCCN1MNX1SA

CANopen architecture

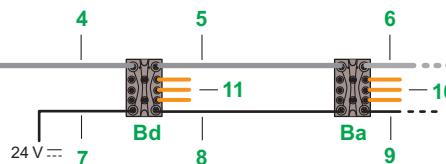


TM7 bus architecture

TM5NCO1 + TM5SBET7



TM258LF + TM5SBET7



- A Power distribution block
- Ba Analog I/O expansion block
- Bd Digital I/O expansion block
- Bi CANopen interface block

TM7 bus expansion cables (continued)

Designation	Description	Item	Length m/ft	Reference	Weight kg/lb
TM7 bus daisy chain cables	Equipped with 2 B-coded 4-way angled M12 connectors, 1 male and 1 female	5	0.3/0.98	TCSXCN2M2F03E	0.090/0.198
			1/3.28	TCSXCN2M2F1E	0.127/0.280
			2/6.56	TCSXCN2M2F2E	0.179/0.395
			5/16.40	TCSXCN2M2F5E	0.337/0.743
			10/32.81	TCSXCN2M2F10E	0.600/1.323
	15/49.21	TCSXCN2M2F15E	0.863/1.903		
	Equipped with 2 B-coded 4-way straight M12 connectors, 1 male and 1 female	5	0.3/0.98	TCSXCN1M1F03E	0.090/0.198
			1/3.28	TCSXCN1M1F1E	0.127/0.280
			2/6.56	TCSXCN1M1F2E	0.179/0.395
			5/16.40	TCSXCN1M1F5E	0.337/0.743
10/32.81			TCSXCN1M1F10E	0.600/1.323	
15/49.21	TCSXCN1M1F15E	0.863/1.903			
TM7 bus expansion cables (bus OUT)	Equipped with 1 B-coded 4-way angled male M12 connector at one end and flying leads at the other	6	1/3.28	TCSXCN2MNX1E	0.089/0.196
			3/9.843	TCSXCN2MNX3E	0.195/0.430
			10/32.81	TCSXCN2MNX10E	0.563/1.241
			25/82.02	TCSXCN2MNX25E	1.352/2.981
	Equipped with 1 B-coded 4-waystraight male M12 connector at one end and flying leads at the other	6	1/3.28	TCSXCN1MNX1E	0.089/0.196
			3/9.843	TCSXCN1MNX3E	0.195/0.430
			10/32.81	TCSXCN1MNX10E	0.563/1.241
25/82.02	TCSXCN1MNX25E	1.352/2.981			
Power distribution cables					
Power IN power distribution cables	Equipped with 1x 4-way angled female M8 connector at one end and flying leads at the other	7	1/3.28	TCSXCNEFNX1V	0.041/0.090
			3/9.843	TCSXCNEFNX3V	0.105/0.231
			10/32.81	TCSXCNEFNX10V	0.329/0.725
			25/82.02	TCSXCNEFNX25V	0.809/1.784
	Equipped with 1x 4-way straight female M8 connector at one end and flying leads at the other	7	1/3.28	TCSXCNDFNX1V	0.041/0.090
			3/9.843	TCSXCNDFNX3V	0.105/0.231
			10/32.81	TCSXCNDFNX10V	0.329/0.725
25/82.02	TCSXCNDFNX25V	0.809/1.784			
Power daisy chain cables	Equipped with 2x 4-way angled M8 connectors, 1 male and 1 female	8	0.3/0.98	TCSXCNEMEF03V	0.028/0.062
			1/3.28	TCSXCNEMEF1V	0.050/0.110
			2/6.56	TCSXCNEMEF2V	0.082/0.181
			5/16.40	TCSXCNEMEF5V	0.178/0.392
			10/32.81	TCSXCNEMEF10V	0.338/0.745
	15/49.21	TCSXCNEMEF15V	0.498/1.098		
	Equipped with 2x 4-way straight M8 connectors, 1 male and 1 female	8	0.3/0.98	TCSXCNDMDF03V	0.105/0.231
			1/3.28	TCSXCNDMDF1V	0.329/0.725
			2/6.56	TCSXCNDMDF2V	0.809/1.784
			5/16.40	TCSXCNDMDF5V	0.105/0.231
10/32.81			TCSXCNDMDF10V	0.329/0.725	
15/49.21	TCSXCNDMDF15V	0.809/1.784			



TCSXCN1M1F03E



TCSXCN1MNX03E

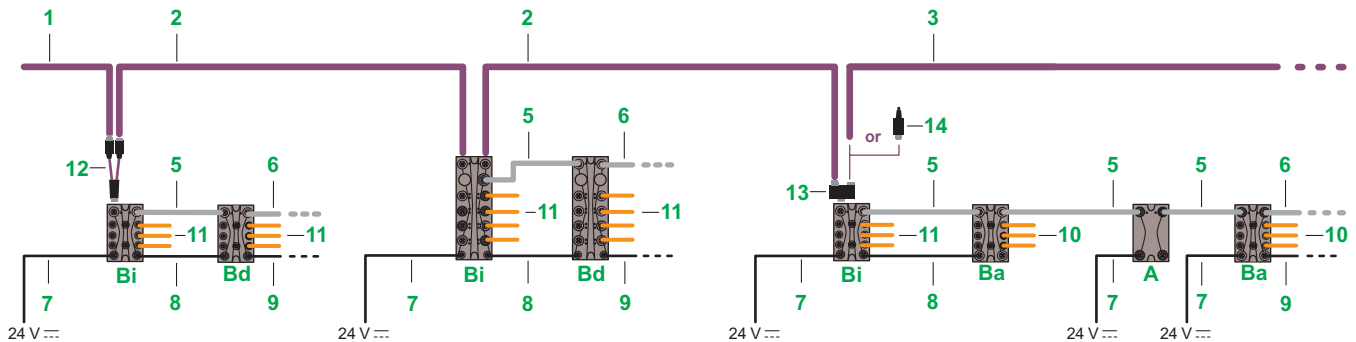


TCSXCNDFNX03V



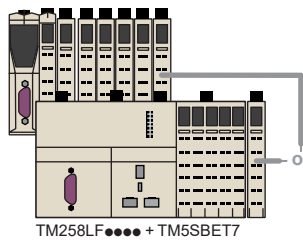
TCSXCNDFNX03V

CANopen architecture

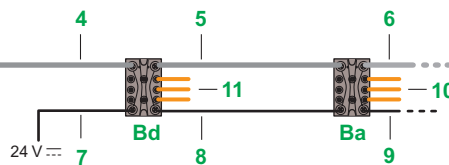


TM7 bus architecture

TM5NCO1 + TM5SBET7



TM258LF + TM5SBET7



- A** Power distribution block
- Ba** Analog I/O expansion block
- Bd** Digital I/O expansion block
- Bi** CANopen interface block

Power distribution cables

Designation	Description	Item	Length m/ft	Reference	Weight kg/lb
Power OUT power distribution cables	Equipped with 1x 4-way angled male M8 connector at one end and flying leads at the other	9	1/3.28	TCSXCNEYNX1V	0.041/0.090
			3/9.843	TCSXCNEYNX3V	0.105/0.231
			10/32.81	TCSXCNEYNX10V	0.329/0.725
			25/82.02	TCSXCNEYNX25V	0.809/1.784
	Equipped with 1x 4-way straight male M8 connector at one end and flying leads at the other	9	1/3.28	TCSXCNDMNX1V	0.041/0.090
			3/9.843	TCSXCNDMNX3V	0.105/0.231
			10/32.81	TCSXCNDMNX10V	0.329/0.725
			25/82.02	TCSXCNDMNX25V	0.809/1.784

Cables for connecting analog sensors and actuators

Cables for connecting sensors and actuators	Equipped with 1 A-coded 5-way angled male M12 connector at one end and flying leads at the other	10	2/6.56	TCSXC2M2SA	0.143/0.315
			5/16.40	TCSXC2M5SA	0.258/0.569
			15/49.21	TCSXC2M15SA	0.546/1.204
	Equipped with one A-coded 5-way straight male M12 connector at one end and flying leads at the other	10	2/6.56	TCSXC1M2SA	0.143/0.315
			5/16.40	TCSXC1M5SA	0.258/0.569
			15/49.21	TCSXC1M15SA	0.546/1.204

Cables for connecting digital sensors and actuators

Please refer to the "Detection for OsiSense automation solutions" catalog, ref. [MKTED210041EN](#)

Accessories

Designation	Composition	Item	Reference	Weight kg/lb
CAN bus Y cable	Equipped with 2x 5-way M12 connectors, 1 male and 1 female at one end and 1x 5-way male M12 connector at the other end	12	TM7ACYCJ	0.031/0.068
CAN Y connector	For connecting 2x M12 connectors, 1 male and 1 female, to a male M12 connector on the expansion block	13	TM7ACYC	0.100/0.220
Line terminator (for end of bus)	Equipped with 1x 5-way male M12 connector	14	TM7ACTLA	0.023/0.051
Connector with temperature probe for measurement by thermocouple (1)	Equipped with 1x 5-way male M12 connector	-	TM7ACTHA	0.100/0.220

(1) For use with the **TM7BAI4PLA** expansion block for measuring the temperature of the connector with compensation



TCSXCNEYNX●●V



TCSXC1M●●SA



TM7ACYCJ



TM7ACTHA



TM7ACYC

Modicon TM7

High-Performance and Safe IP67 Distributed I/O System

Separate parts



TM7ACMP

Separate parts			
Description	Composition	Unit reference	Weight kg/lb
Sealing plugs (1)	For M8 connector on Modicon TM7 blocks Pack of 50	TM7ACCB	0.100/0.220
	For M12 connector on Modicon TM7 blocks Pack of 50	TM7ACCA	0.100/0.220
Plate for mounting on symmetrical DIN rail	For Modicon TM7 blocks	TM7ACMP	0.020/0.044
	For Modicon TM7 blocks Pack of 10	TM7ACMP10	0.200/0.441
Screwdrivers	For tightening the rings on M8 and M12 connectors to the correct torque Pack of 2	TM7ACTW	0.198/0.437

(1) The use of sealing plugs ensures that unused connectors on Modicon TM7 IP67 blocks have IP67 protection.