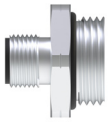
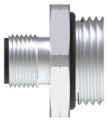
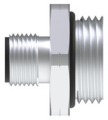
Operating Instructions: Safety & Standard Control Connector

Description	TQ1	TQ2	TQ3	TQ4	TQ5
Safety & Standard Control Connector • Safety Only, Control Only or Safety & Control. • 5/8/12/14/19 pin depending on need. • See Fortress Cables. • Other configurations available on request.					
	TQ7	**TQ8**	**TQ9**	**TQL**	**TQM**
					

tGard Safety & Standard Control Connector Technical Specifications	
Ingress Protection	IP65*
Ambient Temperature	-25°C to 40°C (-13°F to 104°F)
Environment	Indoor use only
Voltage	24V DC
Maximum current on power supply	0.75A
*IP protection is to the tGard device that this module attaches to, when correctly fitted according to installation and maintenance instructions.	

tGard Safety & Standard Control Connector Part Number Options			
Description	**Part No.**	**Description**	**Part No.**
5 Pin QD Safety Only (M12)	TQ1	14 Pin QD Safety & Control (7/8)	TQ7
8 Pin QD Control Only (M12)	TQ2	19 Pin QD Safety & Control (M23)	TQ8
8 Pin QD Safety & Control (M12)	TQ3	19 Pin QD Dual Safety & Control (M23)	TQ9
12 Pin QD Control Only (M23)	TQ4	12 Pin QD Control Only (M12)	TQL
12 Pin QD Safety & Control (M23)	TQ5	12 Pin QD Safety & Control (M12)	TQM

tGard Safety & Standard Control Connector Safety Related Functions		Part No.
Function 1	Provides electrical safety output	TQ1 / TQ2 / TQ3 / TQ4 / TQ5 / TQ7 / TQ8 / TQ9 / TQL / TQM

Table 1. Pin Assignments for Quick Disconnect & Mating Cable Pin Assignments

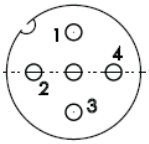
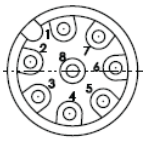
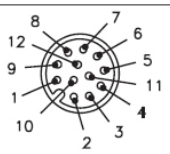
Pin Assignment	Pins																		
	Part No.		TQ1	TEBB4/8		TQ2	TQ3	TQG*		TQL	TQM	TQO*		TQ4	TQ5	TQH*		TQ7
	Number of Pins		5			8				12				12				14
	Connector Size		M12			M12				M12				M23				7/8" UN2
	# of Safety Circuits		0	-		0	2	2		0	2	2		0	2	2		2
	# of Control I/O		0	-		5	1	3		9	5	7		9	5	7		7
1		Brown	SC1 in	AS-i +	White	I/O 0	SC1 in	I/O 1	White	I/O 0	SC1 in	I/O 5	Brown	+24V	+24V	+24V	Grey/ Pink	I/O 3
2		White	SC2 in	Aux -	Brown	+24V	+24V	+24V	Brown	+24V	+24V	+24V	Brown/ White	I/O 0	SC1 in	I/O 5	White/ Green	I/O 2
3		Blue	SC1 out	AS-i -	Green	Earth	Earth	Earth	Green	Earth	Earth	Earth	Blue	0V	0V	0V	White/ Yellow	I/O 1
4		Black	SC2 out	Aux +	Yellow	I/O 1	SC2 in	I/O 2	Yellow	I/O 1	SC2 in	I/O 6	White	I/O 1	SC2 in	I/O 6	Brown	+24V
5		Grey	Earth	Earth	Grey	I/O 2	SC1 out	SC1 out	Grey	I/O 2	SC1 out	SC1 out	Green	I/O 2	SC1 out	SC1 out	Brown/ Yellow	SC 2
6					Pink	I/O 3	SC2 out	SC2 out	Pink	I/O 3	SC2 out	SC2 out	Yellow	I/O 3	SC2 out	SC2 out	Blue	0V
7					Blue	0V	0V	0V	Blue	0V	0V	0V	Grey	I/O 4	I/O 0	I/O 0	Yellow	I/O 6
8					Red	I/O 4	I/O 0	I/O 0	Red	I/O 4	I/O 0	I/O 0	Pink	I/O 5	I/O 1	I/O 1	Green	I/O 5
9									Orange	I/O 5	I/O 1	I/O 1	Red	I/O 6	I/O 2	I/O 2	Pink	I/O 4
10									Tan	I/O 6	I/O 2	I/O 2	Black	I/O 7	I/O 3	I/O 3	White	SC1
11									Black	I/O 7	I/O 3	I/O 3	Violet	I/O 8	I/O 4	I/O 4	Red/ Blue	I/O 0
12									Violet	I/O 8	I/O 4	I/O 4	Green/ Yellow	Earth	Earth	Earth	Brown/ Green	SC2
13																	Grey	SC1
14																	Red	Earth
15																		
16																		
17																		
18																		
19																		

* New options require an OSSD RF module option.

Table 2. Pin Assignments for Quick Disconnect & Mating Cable Pin Assignments

Pin Assignment	Pins	Wire Colour	TQ8	TQJ*	TQ9	TQQ*	TW1	TW7*	TW3	TW8*	TW4	TW9*
	Part No.		TQ8	TQJ*	TQ9	TQQ*	TW1	TW7*	TW3	TW8*	TW4	TW9*
	Number of Pins		19		19		12 + Earth		24 + Earth		24 + Earth	
	Connector Size		M23		M23		-		-		-	
	# of Safety Circuits		2	2	4	4	2	2	4	4	6	6
	# of Control I/O		12	14	8	10	6	8	14	16	10	12
1		Violet	SC1 in	I/O 13	SC1 in	I/O 9	+24V	+24V	+24V	+24V	+24V	+24V
2		Red	SC2 in	I/O 14	SC2 in	I/O 10	0V	0V	0V	0V	0V	0V
3		Grey	SC1 out	SC1 out	SC1 out	SC1 out	SC1 in	I/O 6	SC1 in	I/O 14	SC1 in	I/O 10
4		Red/ Blue	SC2 out	SC2 out	SC2 out	SC2 out	SC2 in	I/O 7	SC2 in	I/O 15	SC2 in	I/O 11
5		Green	I/O 0	I/O 0	I/O 0	I/O 0	SC1 out	SC1 out	SC1 out	SC1 out	SC1 out	SC1 out
6		Blue	0V	0V	0V	0V	SC2 out	SC2 out	SC2 out	SC2 out	SC2 out	SC2 out
7		Grey/ Pink	I/O 1	I/O 1	I/O 1	I/O 1	I/O 0	I/O 0	I/O 0	I/O 0	I/O 0	I/O 0
8		White/ Green	I/O 2	I/O 2	I/O 2	I/O 2	I/O 1	I/O 1	I/O 1	I/O 1	I/O 1	I/O 1
9		White/ Yellow	I/O 3	I/O 3	I/O 3	I/O 3	I/O 2	I/O 2	I/O 2	I/O 2	I/O 2	I/O 2
10		White/ Grey	I/O 4	I/O 4	I/O 4	I/O 4	I/O 3	I/O 3	I/O 3	I/O 3	I/O 3	I/O 3
11		Black	I/O 5	I/O 5	I/O 5	I/O 5	I/O 4	I/O 4	I/O 4	I/O 4	I/O 4	I/O 4
12		Green/ Yellow	Earth	Earth	Earth	Earth	I/O 5	I/O 5	I/O 5	I/O 5	I/O 5	I/O 5
13		Yellow/ Brown	I/O 6	I/O 6	I/O 6	I/O 6	Earth	Earth	I/O 6	I/O 6	I/O 6	I/O 6
14		Brown/ Green	I/O 7	I/O 7	I/O 7	I/O 7			I/O 7	I/O 7	I/O 7	I/O 7
15		White	I/O 8	I/O 8	SC3 in	SC3 in			I/O 8	I/O 8	I/O 8	I/O 8
16		Yellow	I/O 9	I/O 9	SC4 in	SC4 in			I/O 9	I/O 9	I/O 9	I/O 9
17		Pink	I/O 10	I/O 10	SC3 out	SC3 out			I/O 10	I/O 10	SC5 in	SC5 in
18		Grey/ Brown	I/O 11	I/O 11	SC4 out	SC4 out			I/O 11	I/O 11	SC6 in	SC6 in
19		Brown	+24V	+24V	+24V	+24V			I/O 12	I/O 12	SC5 out	SC5 out
20									I/O 13	I/O 13	SC6 out	SC6 out
21									SC3 in	SC3 in	SC3 in	SC3 in
22									SC4 in	SC4 in	SC4 in	SC4 in
23									SC3 out	SC3 out	SC3 out	SC3 out
24									SC4 out	SC4 out	SC4 out	SC4 out
25									Earth	Earth	Earth	Earth

* New options require an OSSD RF module option.

Part No.	TQ1/TEBB4/8	TQ2/3	TQ4/5	TQ7	TQ8/9	TQL/M
Receptacle						

Safety & Standard Control Connector

Figure 1: Dimensional Drawing - TQ1, TQ2, TQ3, TQL & TQM

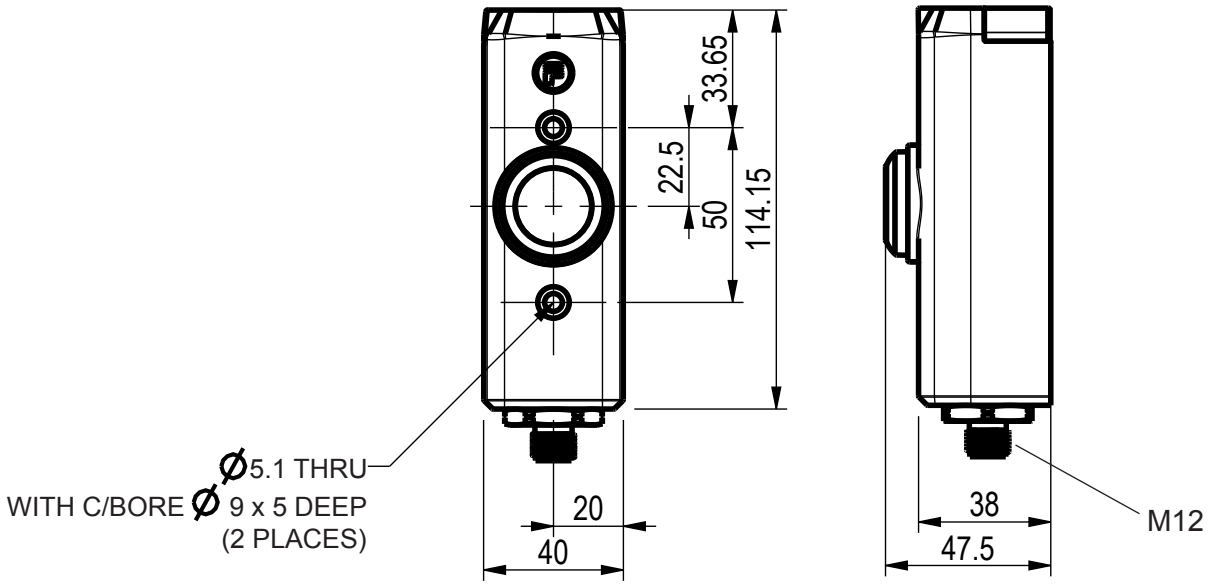


Figure 2: Dimensional Drawing - TQ4, TQ5, TQ8 & TQ9

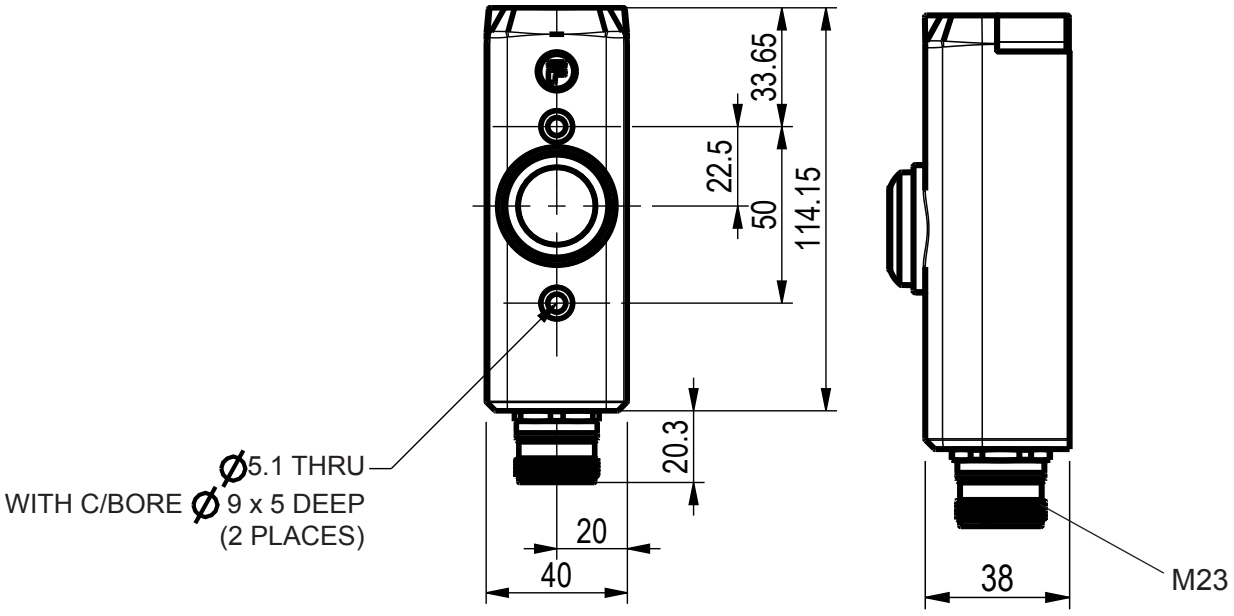
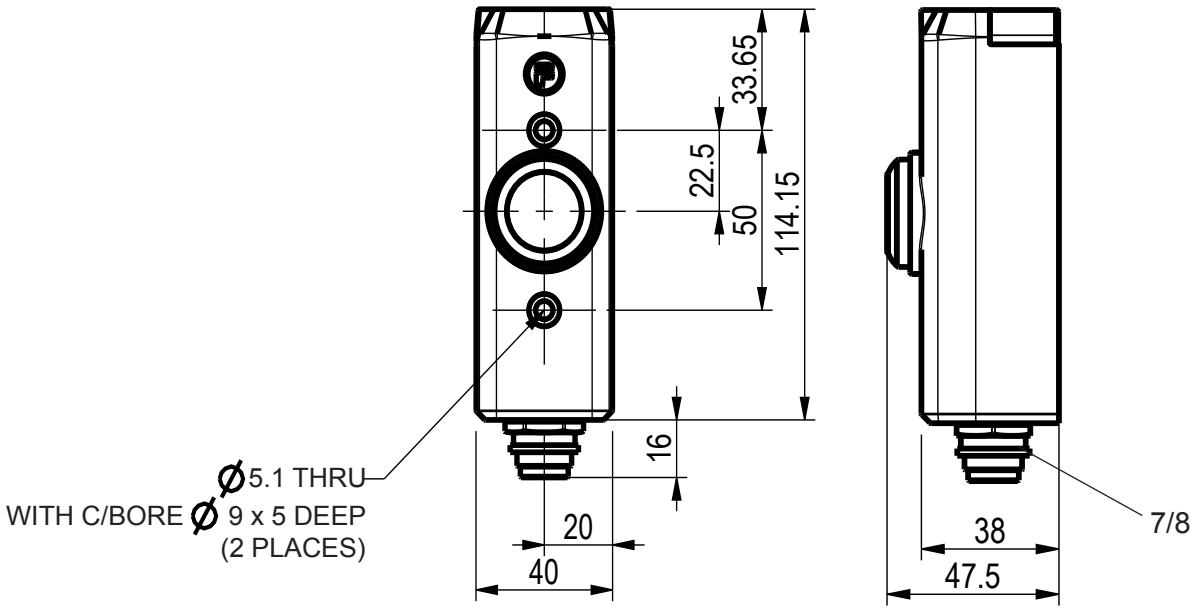


Figure 3: Dimensional Drawing - TQ7



Note: Angle of QD will vary from device to device. Not recommended for use with 90° QD cordset.