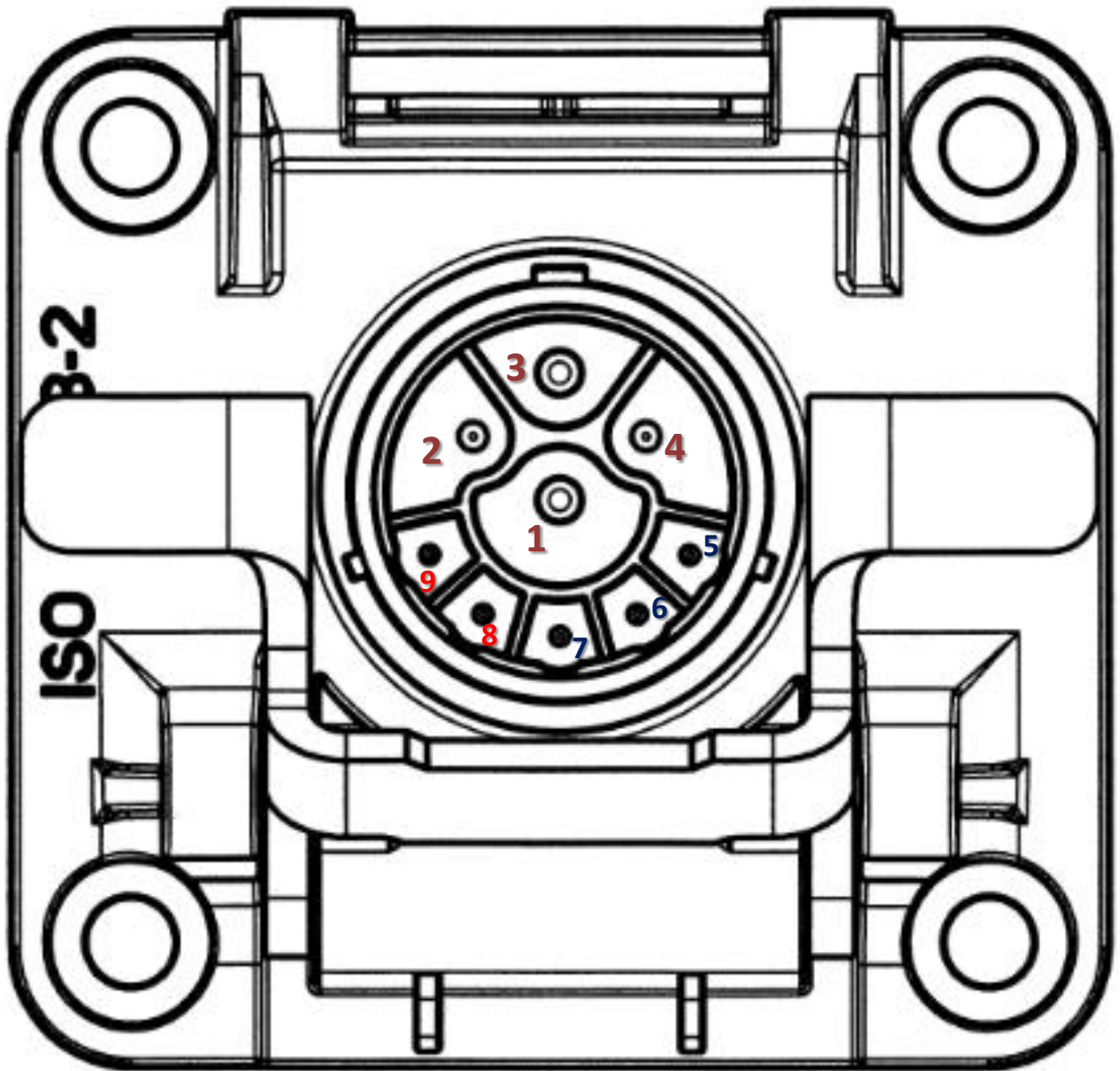


Connection - pin content ISO 11783-2 ISOBUS



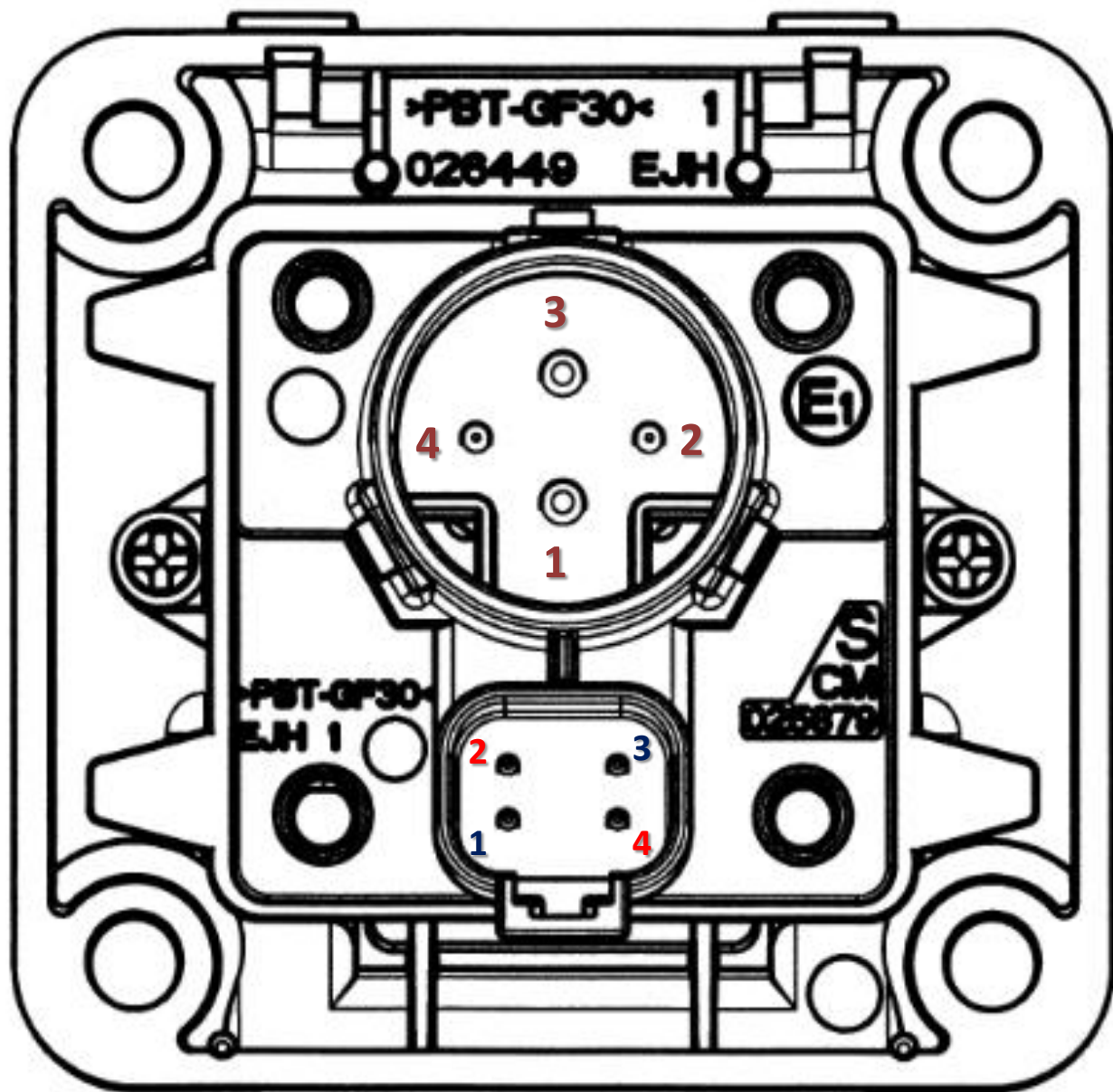
Connection - implement side

- 1. GND
- 2. ECU_GND
- 3. PWR
- 4. ECU_PWR

- 5. TBC_DIS
- 6. TBC_PWR
- 7. TBC_RTN

- 8. CAN_H
- 9. CAN_L

Connection - pin content ISO 11783-2 ISOBUS



Connection - tractor side

IBRC connector

1. GND
2. ECU_GND
3. PWR
4. ECU_PWR

Bus extension connector

1. TBC_PWR
2. CAN_H
3. TBC_RTN
4. CAN_L

Connection & Parameter - ISO 11783-2 ISOBUS

TBC parameters

Parameter	Symbol	Min.	Nom.	Max.	Unit	Condition	
CAN_H bias voltage	U_H	2,25	2,5	2,75	V		
CAN_L bias voltage	U_L	2,25	2,5	2,75	V		
CAN bias tracking	U_L-U_H	-0,1	—	0,1	V	—	
CAN_H terminating resistance	R_{IH}	70	75	80	Ω	Thévenin equivalent of TBC	
CAN_L terminating resistance	R_{IL}	70	75	80	Ω	Thévenin equivalent of TBC	
Operating range supply	12 V system	TBC_PWR	8	—	16	V	25 mV peak to peak ripple in 20 kHz to 2 MHz range
	24 V system	TBC_PWR	16	—	32	V	25 mV peak to peak ripple in 20 kHz to 2 MHz range
Fault tolerance on bus signal lines	Shorts to battery	—	—	—	—	Continuous	
Fault tolerance on bus signal lines	Shorts to ground	—	—	—	—	Continuous	

^a Resistance tracking is specified as

$$R_{IH}/\left[(\sqrt{2})(R_{IH}+R_{IL})\right] \text{ and } R_{IL}/\left[(\sqrt{2})(R_{IH}+R_{IL})\right]$$

Implement bus breakaway connector pin allocations

Pin no.	Name	Contact size ^a	Wire colour	Comments
1	GND	A	Black	Connected separately from ECU_GND to the tractor's power source (battery) negative terminal. Connected to chassis ground on both tractor and implement. All major power loads (lights, motors, etc.) shall use this return path. Connection to chassis ground assures that there is no potential or static charge difference between the implement and tractor.
2	ECU_GND	B	Black	Circuit to be limited to providing electrical return for electronic control units mounted on tractors or implements. This pin shall further be electrically isolated from GND, and shall be connected to the tractor's power source (battery) negative terminal.
3	PWR	A	Red	Power for all lights, motors, etc. that normally require significant power and tend to generate transients on the supply line. On implements that are so equipped, lighting normally powered by the ISO 1724 connector may be powered by this pin.
4	ECU_PWR	B	Red	Intended to provide a good source of clean positive battery power for ECUs mounted on implements.
5	TBC_DIS	C	N/R	Exists only within the connectors (i.e. not for external connections) to control relay for automatic terminating bias connection/removal. Connected to Pin 4 on implement connector plug.
6	TBC_PWR	C		Power for the TBCs; shall not be used for any other purpose.
7	TBC_RTN	C		Provides return path for TBCs; shall not be used for any other purpose.
8	CAN_H	C		Data transmission line pulled toward higher voltage in dominant state.
9	CAN_L	C		Data transmission line pulled toward lower voltage in dominant state.