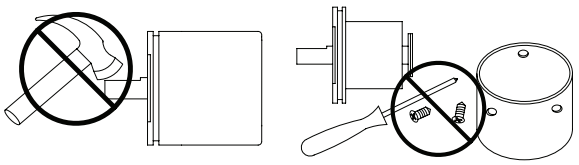
TECHNICAL BULLETIN

TB-540: Installation Guide for Models 25T/H, 58T/HP, and 58T/HF

The maximum recommended motor axial endplay is ±0.030." Maximum shaft TIR is 0.005."

Bore inserts

When installing the bore insert (if not already installed), ensure the small lip on the bore insert (see Figure 1) is positioned correctly by installing the bore insert in front of the encoder. Do not install the bore insert from the back of the encoder. Doing so can cause damage to the encoder.



Do not shock or strike. *Do not disassemble.*

Installing encoder over shaft

Step 1

If needed, clean the motor shaft of any burrs using a fine crocus cloth. Slide the encoder over the motor shaft. Minimum shaft engagement required is 1.2x the bore diameter. Preferred minimum shaft engagement required is 1.5x the bore diameter.

DO NOT USE UNDUE FORCE.

Position the encoder so the flex mount arms just touch the mounting surface. Install screw(s) through the holes in the flex mount and tighten onto the motor securely. (Typical torque range of 115 to 160 oz-in). For additional security, add a drop of Loctite 222 to the threads of the screws.

Step 2

Using a 7/64" hex wrench, tighten the screw in the encoder's clamping collar. (Typical torque range of 15 to 25 in-lb). For additional security, add a drop of Loctite 222 to the threads of the screw. Do not allow Loctite to run into the bore or onto the encoder bearings.

NOTE: *The 3-point SE flex mount (see Figure 2) can accommodate mounting bolt circles from 2.25" to 2.75" by rotating the flex mount.*

Alignment notes

1. When turning the motor shaft by hand, the rocking movement of the encoder should be minimal. If not, loosen the encoder clamping collar screw and rotate the encoder bore relative to the motor shaft to reposition the encoder until this movement is minimized.
2. Ensure that tether arm mount is positioned straight, not bent or bowed. Load applied to the tether arm will cause damage to the encoder.

When tightening the screws, avoid holding the motor shaft with anything that may scar or burr the shaft.

Removal

Loosen (do not remove) the socket head screw in the clamping collar. Then remove the flex mount screws and gently slide the encoder off the motor shaft.

An example of a Model 25T encoder

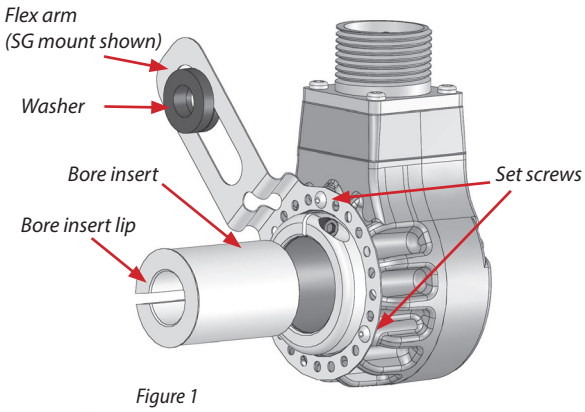


Figure 1

An example of a Model 58TP encoder

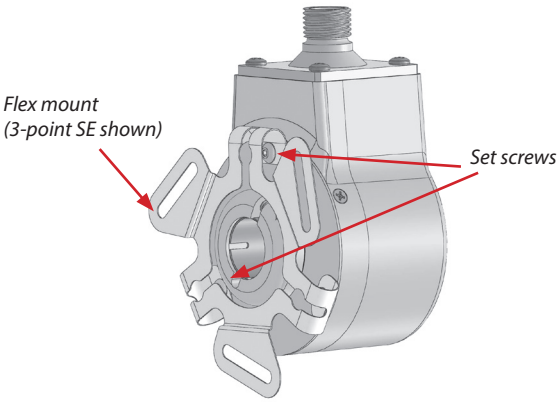


Figure 2

Wiring table for Models 58TP, 58HP, 58TF, and 58HF

For EPC-supplied mating cables, refer to wiring table provided with cable. Note: Color chart is for Gland Cables only.

Function	5-pin M12*	8-pin M12*	10-pin MS	7-pin MS HV, H5	7-pin MS PU, PP, OC, P5	9-pin D-sub	12-pin M23	8-pin M12 optional wiring*	Gland Cable** Wire Color
Com	3	7	F	F	F	9	10	1	Black
+VDC	1	2	D	D	D	1	12	2	Red
A	4	1	A	A	A	2	5	3	White
A'	--	3	H	C	--	3	6	4	Brown
B	2	4	B	B	B	4	8	5	Blue
B'	--	5	I	E	--	5	1	6	Violet
Z	5	6	C	--	C	6	3	7	Orange
Z'	--	8	J	--	--	7	4	8	Yellow
Case	--	--	G	G	G	8	9	--	Green
Shield	--	--	--	--	--	--	--	--	Bare***
+VDC Sense	--	--	--	--	--	--	2	--	--
Com Sense	--	--	--	--	--	--	11	--	--

* CE Option: Use cable cord set with shield connected to M12 connector coupling nut.
** Standard cable is 24 AWG conductors with foil and braid shield.
*** CE Option: Cable shield (bare wire) is connected to internal case.

Wiring table for Models 25T and 25H

For EPC-supplied mating cables, refer to wiring table provided with cable. Note: Color chart is for Gland Cables only.

Function	5-pin M12*	8-pin M12* Standard Wiring	8-pin M12* Optional Wiring	10-pin MS	7-pin MS HV, H5	7-pin MS PU, PP, OC, P5	6-pin MS PU, PP, OC, P5	9-pin D-sub	10-pin Bayonet HV, H5, OD, PU, PP, OC, P5	10-pin Terminal Block	Gland Cable** Wire Color
Com	3	7	1	F	F	F	A, F	9	F	3	Black
+VDC	1	2	2	D	D	D	B	1	D	1	White
A	4	1	3	A	A	A	D	2	A	4	Brown
A'	–	3	4	H	C	–	–	3	H	5	Yellow
B	2	4	5	B	B	B	E	4	B	6	Red
B'	–	5	6	I	E	–	–	5	J	7	Green
Z	5	6	7	C	–	C	C	6	C	8	Orange
Z'	–	8	8	J	–	–	–	7	K	9	Blue
Case	–	–	–	G	G	G	–	8	G	10	–
Shield	–	–	–	–	–	–	–	–	–	–	Bare***

* CE Option: Use cable cord set with shield connected to M12 connector coupling nut.
** Standard cable is 24 AWG conductors with foil and braid shield.
*** CE Option: Cable shield (bare wire) is connected to internal case.