



## ROTARY TRANSDUCERS



Rotary transducers are designed to measure the torque from continuously rotating shafts such as impulse power tools and certain non-impulse tools with a severe clutch action.

This range offers class-leading performance with impulse tools and will be supplied with a UKAS accredited calibration certificate from Norbar's laboratory.

These transducers are known as Smart transducers. They have built-in intelligence in the form of a memory circuit which contains essential information about the transducer which can be read by the appropriate type of instrument (TST, TTT, TTL-HE & T-Box™ 2), thus reducing set-up time.

They will also work with instruments that cannot read the memory information, by inputting the relevant calibration details manually.

Note: Not for use with Impact Tools.

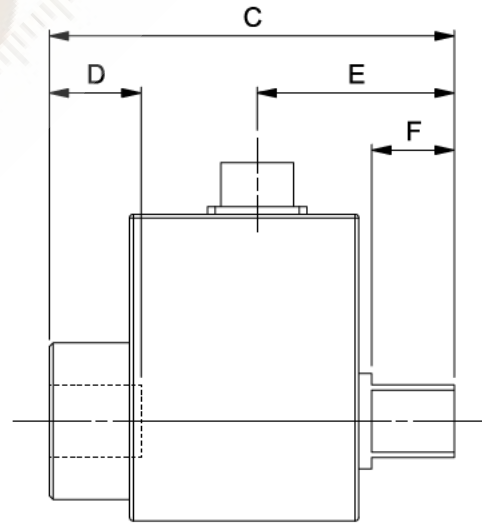
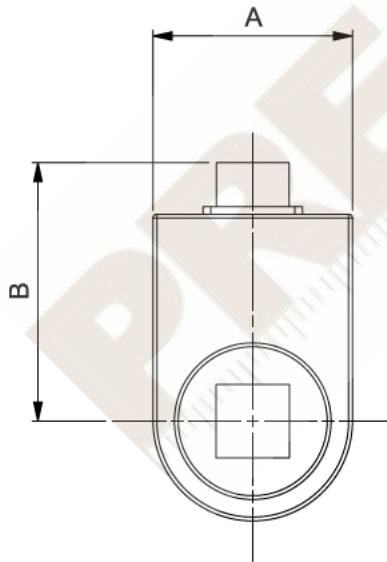
Angle measurement also available.



4	ROTARY TRANSDUCERS
50708.xxx	0.25 - 5 N·m ¼" M/F Hex
50709.xxx	1 - 20 N·m ¼" M/F Hex
50710.xxx	1 - 20 N·m ¼" M/F sq. dr.
50719.xxx	0.75 - 15 lbf·ft ¼" M/F sq. dr.
50711.xxx	3.75 - 75 N·m ⅜" M/F sq. dr.
50720.xxx	2.5 - 50 lbf·ft ⅜" M/F sq. dr.
50712.xxx	10 - 200 N·m ½" M/F sq. dr.
50721.xxx	7.5 - 150 lbf·ft ½" M/F sq. dr.

4	ROTARY TRANSDUCERS
50713.xxx	12.5 - 250 N·m ¾" M/F sq. dr.
50722.xxx	10 - 200 lbf·ft ¾" M/F sq. dr.
50714.xxx	25 - 500 N·m ¾" M/F sq. dr.
50723.xxx	15 - 300 lbf·ft ¾" M/F sq. dr.
50715.xxx	75 - 1,500 N·m 1" M/F sq. dr.
50724.xxx	50 - 1,000 lbf·ft 1" M/F sq. dr.
TD2.CCW	Counter-clockwise calibration.

Angle options available, contact Norbar.



Model	¼" M/F Hex	¼" M/F sq. dr.	⅜" M/F sq. dr.	½" M/F sq. dr.	¾" M/F sq. dr.	1" M/F sq. dr.	
Part Number	50708.xxx 50709.xxx	50710.xxx 50719.xxx	50711.xxx 50720.xxx	50712 xxx 50721 xxx	50713.xxx 50714.xxx 50722.xxx 50723.xxx	50715 xxx 50724 xxx	
Dimensions (mm)	A	30	30	42	52	63	
	B	58	58	67	73	79	
	C	116	72	77	87	106	125
	D	N/A	10	13	16	24	29
	E	49	33	36	42	51	61
	F	26	7	11	15	21	26
Weight (kg)	0.2	0.2	0.2	0.4	0.8	1.5	



ANNULAR TRANSDUCERS



4 ANNULAR TRANSDUCERS FOR HT/ET/EBT/PTS/PTM-92

50753.xxx	270 - 2,700 N·m 1" sq. dr.
50793.xxx	400 - 4,000 N·m 1" sq. dr.

Standard Calibration is performed loading counter-clockwise only.



4 ANNULAR TRANSDUCERS FOR HT/ET/EBT/PTS/PTM-119 SERIES

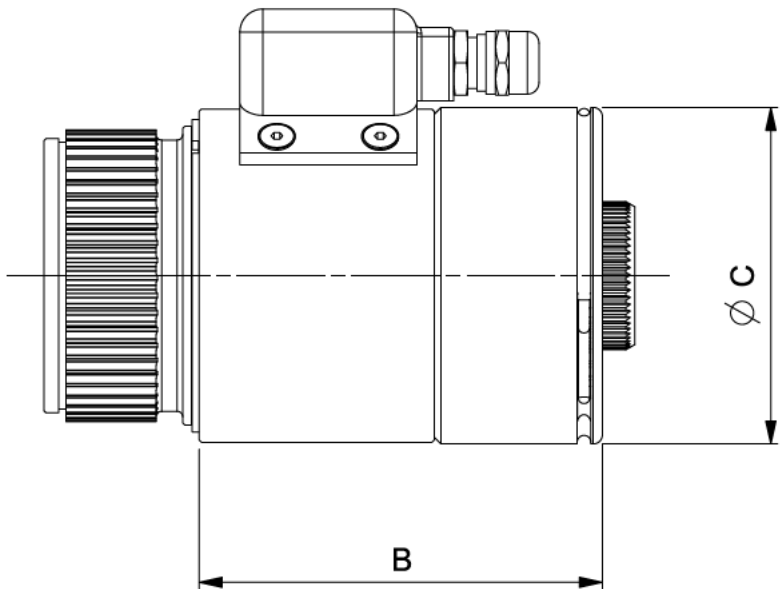
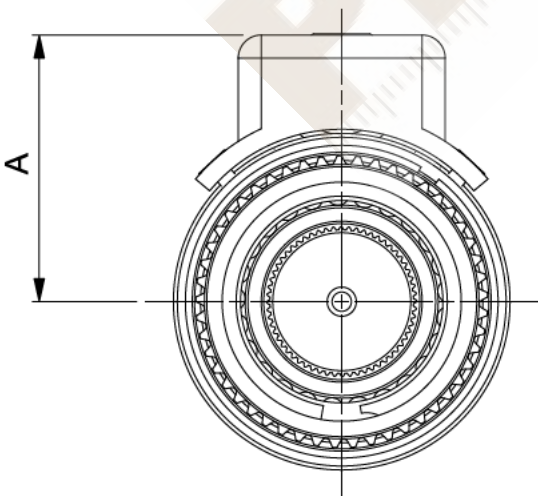
50755.xxx	450 - 4,500 N·m 1½" sq. dr.
50756.xxx	600 - 6,000 N·m 1½" sq. dr.

Standard calibration is performed loading counter-clockwise only.

These Annular Transducers are designed to fit directly to Norbar torque multipliers and will accurately measure the torque output from the gearbox, via a display instrument (instrument supplied separately, see pages 83 - 84 & 86).

- Up to 6,000 N·m classified to BS7882:2017, typically better than Class 1 for the primary classification range (±0.5% of reading from 20% to 100% of full scale)
- Robust heat treated alloy steel torsion tube design
- Designed to ignore non-torsional forces
- Smart transducers have a built in memory circuit which contains essential information about the transducer. This information can be read by Norbar's TST, TTT, TTL-HE & T-Box™ 2 instruments meaning that when the transducer is connected, it is immediately recognised and ready for use
- Smart transducers can also be used with many other instruments, however, these will operate as normal ratio calibrated (mV/V) transducers - the Smart data will not be read

Model	Annular Transducers for use with	
	HT/ET/EBT/PTS/PTM-92	HT/ET/EBT/PTS/PTM-119
Part Number	50753.xxx 50793.xxx	50755 xxx 50756 xxx
Dimensions (mm)	A	58
	B	88
	ØC	73
Weight (kg)	4.6	7.9





ANNULAR TRANSDUCERS



4 ANNULAR TRANSDUCERS FOR STANDARD SERIES GEARBOX

Suitable for HT9 and PT9	
50644.xxx	1,000 - 10,000 N·m 1½" sq. dr.
50653.xxx	700 - 7,000 lbf·ft 1½" sq. dr.
Suitable for HT11 and PT11	
50645.xxx	2,000 - 20,000 N·m 2½" sq. dr.
50654.xxx	1,500 - 15,000 lbf·ft 2½" sq. dr.
Suitable for HT12 and PT12	
50764.xxx	3,500 - 35,000 N·m 2½" sq. dr.
50765.xxx	2,500 - 25,000 lbf·ft 2½" sq. dr.
Suitable for HT13 and PT13	
50646.xxx	5,000 - 50,000 N·m 2½" sq. dr.
Suitable for PT14	
50647.xxx	10,000 - 100,000 N·m 3½" sq. dr.
TD4.CCW	Alternative calibration direction for transducers from 7,001 - 100,000 N·m / 5,001 - 75,000 lbf·ft when ordered with new unit

4 ANNULAR TRANSDUCERS FOR STANDARD SERIES GEARBOX

Suitable for PT1, PT1A and PT2	
50638.xxx	100 - 1,000 N·m ¾" sq. dr.
50648.xxx	100 - 1,000 lbf·ft ¾" sq. dr.
Suitable for heavy duty HT2, PT1, PT1A and PT2	
50639.xxx	150 - 1,500 N·m 1" sq. dr.
50649.xxx	150 - 1,500 lbf·ft 1" sq. dr.
TD2.CCW	Alternative calibration direction for transducers up to 1,500 N·m / 1,000 lbf·ft when ordered with new unit

Suitable for HT5 and PT5	
50640.xxx	250 - 2,500 N·m 1" sq. dr.
50650.xxx	250 - 2,500 lbf·ft 1" sq. dr.
50641.xxx	350 - 3,500 N·m 1" sq. dr.

Suitable for HT6 and PT6	
50700.xxx	350 - 3,500 N·m 1½" sq.dr.

Suitable for HT7 and PT7	
50643.xxx	500 - 5,000 N·m 1½" sq. dr.
50652.xxx	500 - 5,000 lbf·ft 1½" sq. dr.

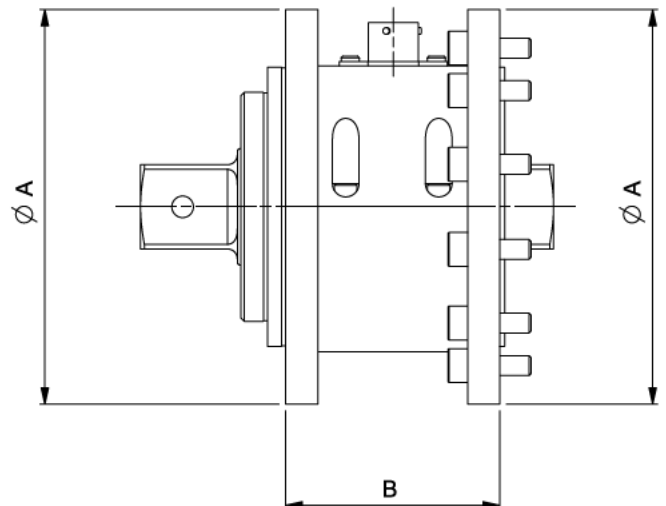
TD5.CCW@ Alternative calibration direction for transducers from 1,501 - 7,000 N·m / 1,001 - 5,000 lbf·ft when ordered with new unit

Model	Annular Transducers for use with Standard Series Multipliers			
Part Number	50638 xxx	50640 xxx	50643.xxx 50652.xxx	
	50648 xxx	50650 xxx		
	50639 xxx	50641 xxx		
	50649 xxx	50700 xxx		
Dimensions (mm)	∅A	108	119	144
	B	60	65	71
Weight (kg)		1.4	2.6	3.6

Suitable for PT18.MTS	
-	30,000 - 300,000 N·m
Standard calibration is performed loading counter-clockwise only.	
@ UKAS accredited calibration up to 6,000 N·m. A non-accredited value at 7,000 N·m is extrapolated and provided for reference only.	



PT 18 fitted with 300,000 N·m Annular Transducer and square drive





ANNULAR TRANSDUCERS



**4 TORQUE & ANGLE ANNULAR TRANSDUCERS - FIXED CONNECTOR**

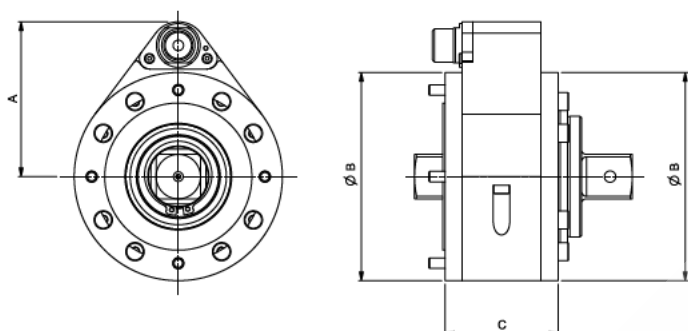
Suitable for heavy duty PT1, PT1A and PT2

50820.LOGA*	100 - 1,000 N·m ¾" sq. dr.
50821.LOGA**	150 - 1,500 N·m 1" sq. dr.

\* Can only be used with remote/plain sleeve motors i.e. not a standard PT handle, due to cable interference  
Only fits to PT with HD final stage carrier having 1" female sq. dr.

Suitable for HT5 and PT5

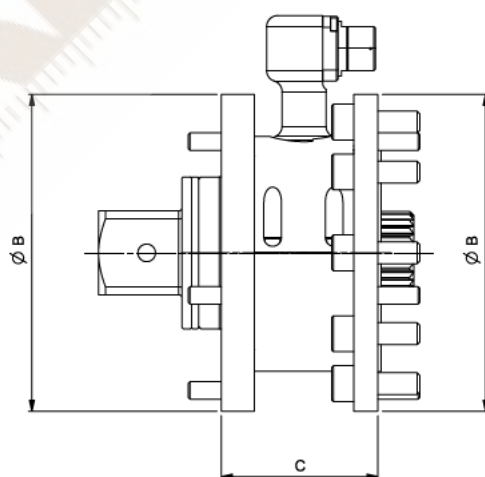
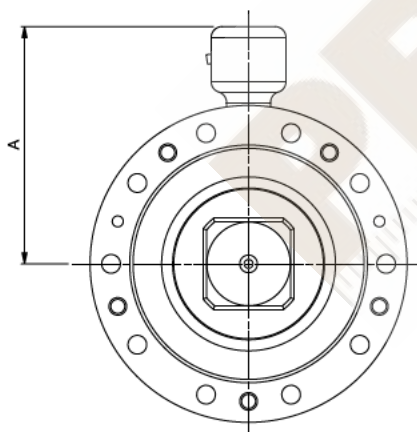
50822.LOGA	350 - 3,500 N·m 1" sq. dr.
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Model	Torque & Angle Annular Transducers with Fixed Connector	
Part Number	50820.LOGA 50821.LOGA 50822.LOGA	
Dimensions (mm)	A	89
	ØB	119
	C	65
Weight (kg)	1.4	



Fixed Connector



180° Swivel Connector

**4 TORQUE & ANGLE ANNULAR TRANSDUCERS - 180° SWIVEL CONNECTOR**

Suitable for HT7 and PT7

50834.LOGA	500 - 5,000 N·m 1½" sq. dr.
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Suitable for HT9 and PT9

50824.LOGA	1,000 - 10,000 N·m 1½" sq. dr.
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Suitable for HT11 and PT11

50825.LOGA	2,000 - 20,000 N·m 2½" sq. dr.
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Suitable for HT12 and PT12

50826.LOGA	3,500 - 35,000 N·m 2½" sq. dr.
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Suitable for HT13 and PT13

50827.LOGA	5,000 - 50,000 N·m 2½" sq. dr.
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Suitable for HT14 and PT14

50828.LOGA	10,000 - 100,000 N·m 3½" sq. dr.
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PT13 & PT14 require special front cover plate with added dowel clearance holes

Suitable for HT15 and PT15

50832.LOGA	15,000 - 150,000 N·m 4½" sq. dr.
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Suitable for HT16 and PT16

50829.LOGA	20,000 - 200,000 N·m 5" sq. dr.
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Suitable for HT17 and PT17

50830.LOGA	25,000 - 250,000 N·m 6" sq. dr.
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Suitable for HT18 and PT18

50831.LOGA	30,000 - 300,000 N·m 6" sq. dr.
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Model	Torque & Angle Annular Transducers with Swivel Connector										
	5,000 N m	10,000 N m	20,000 N m	35,000 N m	50,000 N m	100,000 N m	150,000 N m	200,000 N m	250,000 N m	300,000 N m	
Part Number	50834.LOGA	50824.LOGA	50825.LOGA	50826.LOGA	50827.LOGA	50828.LOGA	50832.LOGA	50829.LOGA	50830.LOGA	50831.LOGA	
Dimensions (mm)	A	108	120	140	151	186	186	*	*	*	289
	ØB	144	178	212	248	315	315	*	*	*	520
	C	144	184	212	240	315	315	*	*	*	520
Weight (kg)	7.0	10.0	15.0	29.3	43.5	46.6	*	*	*	149.5	

\* Available on request



## ANNULAR TRANSDUCERS



### 4 ANNULAR TRANSDUCERS FOR 72 mm SERIES GEARBOX (HT & PT) (Not suitable for PTS/PTM tools)

Suitable for PT-72 mm Remote Series and HT-72

50666.xxx	100 - 1,000 N·m
50667.xxx	150 - 1,500 N·m
50668.xxx	200 - 2,000 N·m

Standard calibration is performed loading counter-clockwise only.

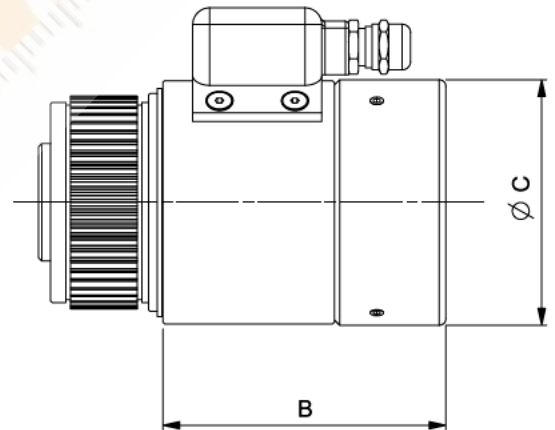
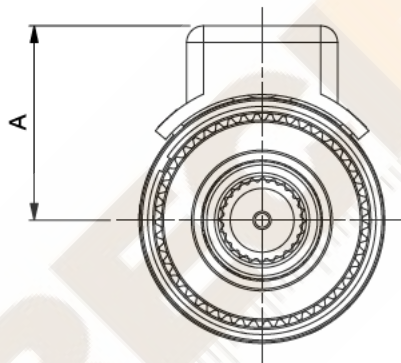
### 4 ANNULAR TRANSDUCERS FOR PTS/PTM 72

Suitable for PTS/PTM-72 mm Series

50840.xxx	100 - 1,000 N·m
50841.xxx	150 - 1,500 N·m
50842.xxx	200 - 2,000 N·m
50846.LOGA	100 - 1,000 N·m with Angle



Model	Annular Transducers for use with 72 mm Series Multipliers	Annular Transducers for use with 72 mm Series Multipliers	
Part Number	50666.xxx 50667.xxx 50668.xxx 50840.xxx 50841.xxx 50842.xxx	50846.LOGA	
Dimensions (mm)	A	58	85
	B	84	93
	ØC	72	73
Weight (kg)	1.5	3.1	



#### Torque and Angle Annular Transducer Note:

- 5,000 N·m and above include dowels on both mounting faces
- Angle resolution < 1° when used with T-Box XL™
- CW+CCW calibration is standard
- Use 60308.xxx series lead for direct connection to T-Box XL™ for torque and angle/turns monitoring and storage
- PT square drive and other parts may require removal to fit transducer
- All the above are standard construction. Harsh Environment models are available on request
- '.INDA' versions are available on request

Note: PTS™ and reactions with dowel holes can be supplied at an extra cost on request. Request details on PneuTorque® Type '.XD'

### 4 ANNULAR TRANSDUCERS

SECCAL.CW	Secondary calibration in one direction on annular transducers for HT/PT9 & HT/PT11 to extend the range below 10% of the rated capacity, when ordered with new unit
SECCAL.CW+CCW	Secondary calibration in two directions on annular transducers for HT/PT9 & HT/PT11 to extend the range below 10% of the rated capacity, when ordered with new unit
ADDCALPOINTS.NEW	Additional calibration steps below 10% of rated capacity to 2% for transducers up to 7,000 N·m (5,000 lbf·ft) when ordered with new unit