Product finder of torque measuring shafts

								
Product	**DATAFLEX® 16**	**DATAFLEX® 32**	**DATAFLEX® 42**	**DATAFLEX® 70**	**DATAFLEX® 110**	**MONITEX® BT 28/200**	**MONITEX® BT 42/800**	**customised**
maintenance-free	●	●	●	●	●	●	●	●
For rotating applications	●	●	●	●	●	●	●	●
Dual-range measuring shaft	●	●	●	●	●	–	–	–
Measuring range 1 T_{KN} [Nm]	10, 30, 50	100, 300, 500	1000	3000, 5000	10000, 20000	200	800	up to 500000
Measuring range 2 T_{KN2} [Nm]	2, 6, 10	20, 60, 100	200	600, 1000	2000, 4000	–	–	–
Inaccuracy (% of T_{KN}/T_{KN2})	< 0.1 / 0.2	< 0.1 / 0.2	< 0.1 / 0.2	< 0.1 / 0.2	< 0.1 / 0.2	< 0.25	< 0.25	< 0.2
Torque output	-10 … 10 V	-10 … 10 V	-10 … 10 V	-10 … 10 V	-10 … 10 V	Bluetooth, App, PC, -10 ... 10 V, 4 ... 20 mA [1]		-10 ... 10 V, 4 … 20 mA
Speed output								
Square-wave signal [pulses/rev.]	2 x 360	2 x 720	2 x 720	2 x 450	2 x 720	–	–	–
DC - direct voltage signal [0 ... 10V]	●	●	●	●	●	●[1]	●[1]	–
Direction signal	●	●	●	●	●	–	–	–
Maximum speed [rpm]	10,000	7,500	6,500	4,000	3,000	3500	3500	miscellaneous
Recommended coupling	RADEX®-NC 21, 26	RADEX®-NC 36 RADEX®-N 60	RADEX®-N 80	RADEX®-N 90, 115	as specified	ROTEX® GS 28	ROTEX® GS 42	as specified
Connection housing DF2	●	●	●	●	●	–	–	–

[1] With DAC (digital-to-analog converter)

DATAFLEX® Connection housing DF2
(see page 361)

The connection housing DF2 can easily be combined with all DATAFLEX® torque measuring shafts disposing of a retainer for top hat rail assembly as well as terminal screws for an easy connection of external devices.
The following features save the purchase of expensive measuring amplifiers and converters:

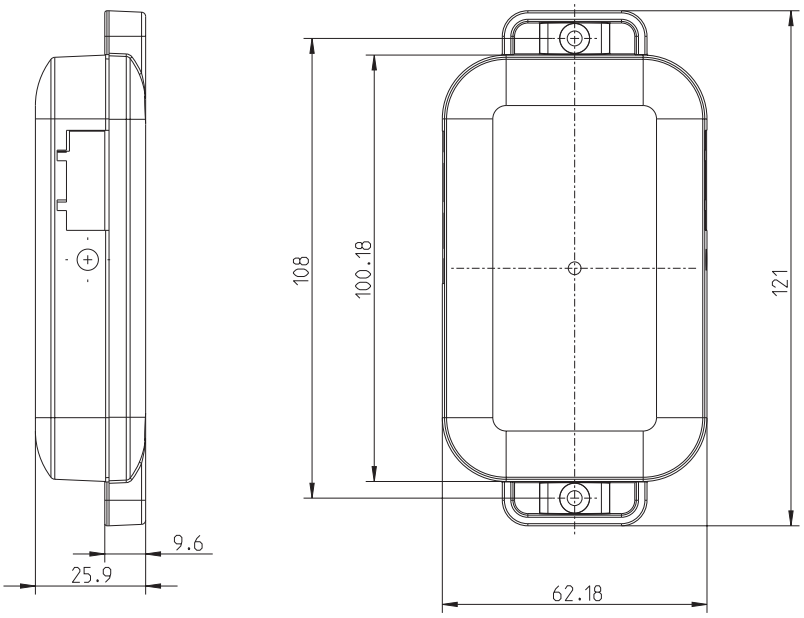
- The torque output can be filtered over 5 steps so that short torque peaks in the display can be reduced.
- The pulsed outputs of the speed signals can be configured both for 5 V (TTL) and 24 V (HTL) controls. This makes the outputs compatible with data logging boards and SPS controls.
- In parallel with the pulse signal an integrated frequency voltage converter supplies a DC voltage from 0 – 10 V proportionally to the speed, the scaling of which can be individually adapted. This makes an expensive counter superfluous so that the signal can either be processed as a voltage or displayed.
- A direction signal indicates the rotational direction of the drive (with DATAFLEX® 16, 32, 42, 70 and 110).

MONITEX® BT DAC - Analog outputs
(see page 364)

The DAC connects to the torque measuring MONITEX® BT coupling hub displaying the data for torque and speed as analog voltage and current. The DAC allows for integrating the MONITEX® BT torque and speed data in the control systems.

MONITEX® BT ACCESSORIES (TORQUE MEASURING COUPLING HUB)

DAC – analog output



The digital-to-analog converter (DAC) automatically connects to the torque measuring MONITEX® BT coupling hub displaying the torque and speed data as analog voltage and current. Besides the free app and Windows software, the signals can be directly connected to controls or existing data logging.

Electrical data		Output resistances	
Power supply [V DC]	24 ±4	Voltage outputs [Ohm]	1000
Max. current consumption [mA]	<100	Maximum current loop resistance [Ohm]	Max. 560
Torque outputs		**Inaccuracies of converter**	
Voltage output [V]	-10 … +10	Voltage outputs [1] [%]	0.05
Current output [mA]	4 … 20	Current outputs [1] [%]	0.1
Converter frequency [Hz]	500		
Torque outputs		**Dimensions**	
Voltage output [V]	0 … 10	Dimensions [mm]	121 x 62 x 26
Current output [mA]	4 … 20	Weight [g]	90
Converter frequency [Hz]	5		

[1] Referring to upper range value

Scaling				
	Torque		Speed	
Type MONITEX® BT	Voltage output [Nm/V]	Current output [Nm/mA]	Voltage output [rpm/V]	Current output [rpm/mA]
MONITEX® BT 28	20	25	350	218.75
MONITEX® BT 42	80	100		