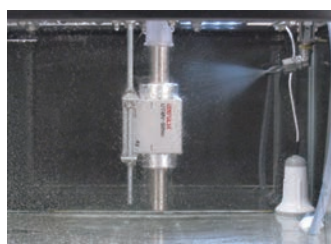


UTMV DRIP & RUST PROOF ROTATING TORQUE METER



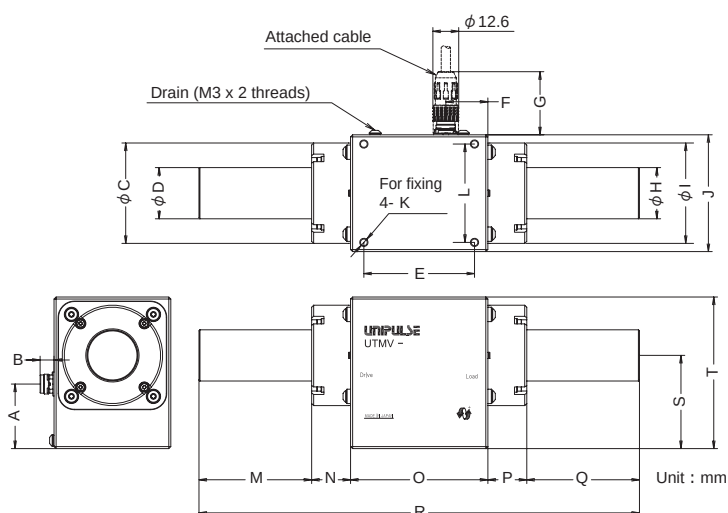
Drip-proof type with high safe overload rating for use in harsh conditions

■ Specification (ST:Standard, (S):PTFE rotary seal option)

- Degree of protection: equivalent to IP65
- Made of rust-resistant stainless steel
- Labyrinth seal (standard)
With the protection against rain and seawater, it can be used outside for wind and water turbine and so on.
- PTFE rotary seal: option (S)
It can be used in environment with dust and/or oil mist as well.
- Key groove : option (K)

Measurement range	±0.1Nm		±0.5Nm		±1Nm		±5Nm		±10Nm		±50Nm		±100Nm		±500Nm		±1000Nm		±5000Nm	
Seal structure	ST	(S)	ST	(S)	ST	(S)	ST	(S)	ST	(S)	ST	(S)	ST	(S)	ST	(S)	ST	(S)	ST	(S)
Power supply	DC24V ±15%																			
Consumption current	100mA or less										150mA or less					160mA or less				
Output range	±5V Load resistance must be more than 2kΩ																			
Bandwidth	1kHz																			
Rotation signal	4 pulses per 1 rotation										Open collector Max. ratings 30V, 10mA									
Safe overload	500% FS																			
Non-linearity	0.03% FS																			
Hysteresis	0.03% FS																			
Repeatability	0.03% FS																			
Operation temp. range	-10 to +50℃																			
Temp. effect on zero	0.01%FS/℃																			
Temp. effect on span	0.01%FS/℃																			
Max. rotation speed rpm	10000	2120	10000	1590	10000	1590	9000	1060	9000	1060	5700	680	4800	570	4800	380	4800	270	4000	180
Torsional spring constant Nm/rad	11.13		89.5		172		897		1400		6887		16.4×10 ³		93.6×10 ³		326×10 ³		1418×10 ³	
Maximum torsional angle rad	8.99×10 ⁻³ (0.515°)		5.59×10 ⁻³ (0.320°)		5.83×10 ⁻³ (0.334°)		5.58×10 ⁻³ (0.320°)		7.14×10 ⁻³ (0.409°)		7.26×10 ⁻³ (0.416°)		6.11×10 ⁻³ (0.350°)		5.34×10 ⁻³ (0.306°)		3.07×10 ⁻³ (0.176°)		3.53×10 ⁻³ (0.202°)	
Inertia moment kgm ²	1.15 ×10 ⁻⁶	0.99 ×10 ⁻⁶	2.19 ×10 ⁻⁶	1.90 ×10 ⁻⁶	2.22 ×10 ⁻⁶	1.93 ×10 ⁻⁶	5.60 ×10 ⁻⁶	4.90 ×10 ⁻⁶	5.70 ×10 ⁻⁶	5.00 ×10 ⁻⁶	4.21 ×10 ⁻⁵	3.86 ×10 ⁻⁵	9.6 ×10 ⁻⁵	10.9 ×10 ⁻⁵	6.2 ×10 ⁻⁴	6.1 ×10 ⁻⁴	3.56 ×10 ⁻³	3.51 ×10 ⁻³	2.38 ×10 ⁻²	2.34 ×10 ⁻²
Approx. weight	390g		430g		430g		580g		580g		1.6kg		2.1kg		4.0kg		10.5kg		28.3kg	
Attached cable	6 conductor shield cable 2m end treatment 7 leads																			
Accessories	CATM51 : 6 conductor shield cable 5m end treatment 7 leads CATM12 : 6 conductor shield cable 10m end treatment 7 leads																			
CE marking certification	EMC directives EN61326-1, EMC directives EN61326-2-3																			

Dimension



Type	Type
UTMV- 0.1Nm	UTMV- 100Nm
UTMV- 0.1Nm(S)	UTMV- 100Nm(K)
UTMV- 0.5Nm	UTMV- 100Nm(S)
UTMV- 0.5Nm(S)	UTMV- 100Nm(SK)
UTMV- 1Nm	UTMV- 500Nm
UTMV- 1Nm(S)	UTMV- 500Nm(K)
UTMV- 5Nm	UTMV- 500Nm(S)
UTMV- 5Nm(K)	UTMV- 500Nm(SK)
UTMV- 5Nm(S)	UTMV- 1000Nm
UTMV- 5Nm(SK)	UTMV- 1000Nm(K)
UTMV- 10Nm	UTMV- 1000Nm(S)
UTMV- 10Nm(K)	UTMV- 1000Nm(SK)
UTMV- 10Nm(S)	UTMV- 5000Nm
UTMV- 10Nm(SK)	UTMV- 5000Nm(K)
UTMV- 50Nm	UTMV- 5000Nm(S)
UTMV- 50Nm(K)	UTMV- 5000Nm(SK)
UTMV- 50Nm(S)	
UTMV- 50Nm(SK)	

Measurement range	A	B	φ C	φ D	E	F	G	φ H	φ I	J	K	L	M	N	O	P	Q	R	S	T	Key groove
0.1	25	8.3	24	5h7	45	18	32.3	5h7	24	40	M3 Depth 6	32	10	11.5	54	11.5	10	97	33	50	—
0.5	25	8.3	26	8h7	45	18	32.3	8h7	26	40	M3 Depth 6	32	15	11.5	54	11.5	15	107	33	50	—
1	25	8.3	26	8h7	45	18	32.3	8h7	26	40	M3 Depth 6	32	15	11.5	54	11.5	15	107	33	50	—
5	25	8.3	30.5	12h7	45	19.5	32.3	12h7	30.5	40	M3 Depth 6	34	20	12	57	12	20	121	35.5	55	Refer to UTM II (K)
10	25	8.3	30.5	12h7	45	19.5	32.3	12h7	30.5	40	M3 Depth 6	34	20	12	57	12	20	121	35.5	55	
50	31.5	6.8	43.4	20h7	58	20.5	30.8	20h7	43.4	51	M3 Depth 6	43	50	18.5	70	18.5	50	207	42.5	68	
100	31.5	6.8	49	25h7	54	20.5	30.8	25h7	49	57	M4 Depth 8	48	55	19	67	19	55	215	45.5	74	
500	21.5	6.8	64.2	40h7	52	20.5	30.8	40h7	64.2	72	M4 Depth 8	64	75	20	67	20	75	257	43	79	
1000	25	5.3	86.6	60h7	66	28.5	29.3	60h7	86.6	98	M5 Depth 10	86	100	20	86	20	100	326	54	103	Refer to UTM II (K)
5000	25	4.8	124.6	90h7	72	28.5	28.8	90h7	124.6	137	M6 Depth 12	124	145	23	97	23	145	433	72.5	141	

* Dimension of rotary seal type is same as standard type.