CAMERON

LEDEEN DiM Series Electric Actuator

Technical Data

Initial Release 01
April 2015

1.0 Multi-Turn

1.1 Technical Data Multi-Turn

Multi-Turn Actuators for On-Off Duty DiMEx

Multi-Turn Actuators for Modulating Duty DiMREx

1.2 Motor Data Multi-Turn

Multi-Turn Actuators for On-Off Duty DiMEx

Multi-Turn Actuators for Modulating Duty DiMREx

1.3 Actuator Dimensions

Multi-Turn Actuators for On-Off Duty DiMEx

Multi-Turn Actuators for Modulating Duty DiMREx

Multi-Turn Actuators Output Drive Dimensions

Output Drive Dimensional Drawings

2.0 Part-Turn

2.1 Technical Data Part turn

Part-Turn Actuators for On-Off Duty DPiMEx

Part-Turn Actuators for Modulating Duty DPiMREx

2.2 Motor Data Part-Turn

Part-Turn Actuators for On-Off Duty DPiMEx

Part-Turn Actuators for Modulating Duty DPiMREx

2.3 Actuator Dimensions

Part-Turn Actuators for On-Off Duty DPiMEx

Part-Turn Actuators for Modulating Duty DPiMREx

Part-Turn Actuators Output Mounting Dimensions

Output Drive Dimensional Drawings

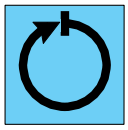
3.0 Linear Actuator

3.1 Technical Data

Thrust Actuators for On-Off Duty DiMEx + DSE

Thrust Actuators for Modulating Duty DiMREx + DSE

3.2 Connection Dimensions of Output Drive and Thrust Unit with Foot for Linear Actuator



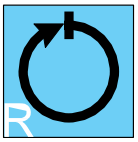
1.0 Multi-Turn

1.1 Technical Data Multi-Turn

Multi-Turn Actuators for On-Off Duty DiMEx

Actuator Model	Actuator Speed (rpm) *	Torque Adjustment Range (N·m)	max. running torque	Connection Flange to DIN EN ISO 5210 (Standard)	Connection Flange to DIN EN ISO 5210 (Special Request)	Connection Flange to DIN EN ISO 3210 (Special Request)	Max. Allowable Spindle Diameter at Form A*** (mm)	Max. Allowable Axial Force at Form "A" (kN)	Type of Duty S2-..(min) ****
DiMEx 30	5-80, 120*, 160*	10-30	15	F07 -	- F10	- G0	24 28	30 40	15 10
DiMEx 59	5-80, 120*, 160*	20-60	30	F10 - -	- - F07	G0 - -	28 - 25	40 - 30	15 10 -
DiMEx 120	5-80, 120*, 160*	40-120	60	- - -	F10 - F14	G0 - G1/2	40 - 40	60 - 60	15 - -
DiMEx 249	5-50 80	80-250	125	F14 -	- F10	G1/2 G0	40 40	60 60	15 10
DiMEx 250	5-80, 120*, 160*	80-250	125	F14 -	- F16	G1/2 -	52 -	120 -	15 10
DiMEx 500	5-80, 120*, 160*++	150-500	250	F14	F16	G1/2	52	160	10
DiMEx 1000	5-50, 80***++	300-1000	500	F16	-	G3	65	190	10
DiMEx 2000	40-80, 120/160****	800-2000	600	F25	+	+	80	380	15

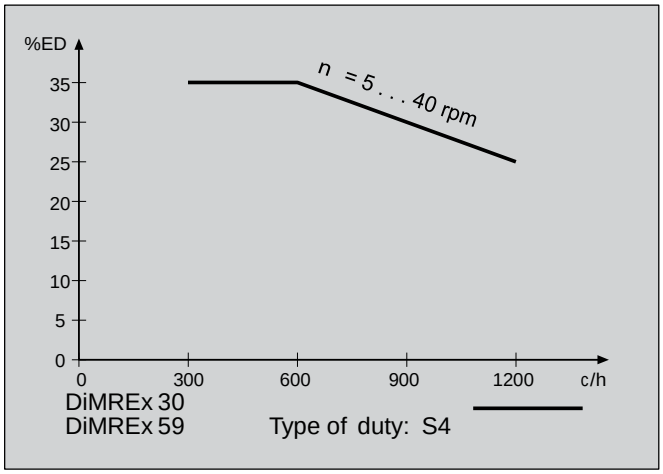
* Actuators with this speed are not self-locking
** Not available for sizes DiMEx 249 and DiMEx 1000
*** For model B, B1, B2, and C dimension d5 to be observed
**** Actuator speeds for DiMEx 2000: 120 rpm and 160 rpm with limited torque
+ On request
++ DimEx500-80, 200Nm running torque
++ DimEx1000-80, 400Nm running torque

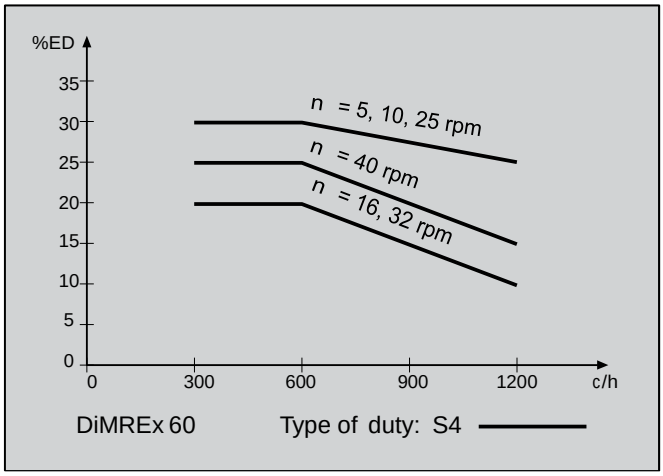


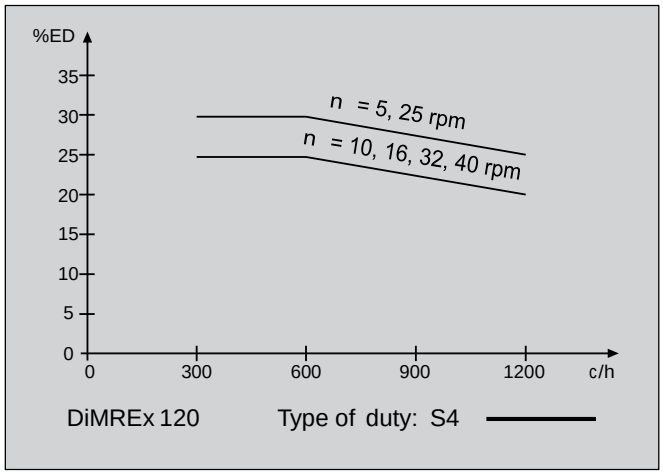
Multi-Turn Actuators for Modulating Duty DiMREx

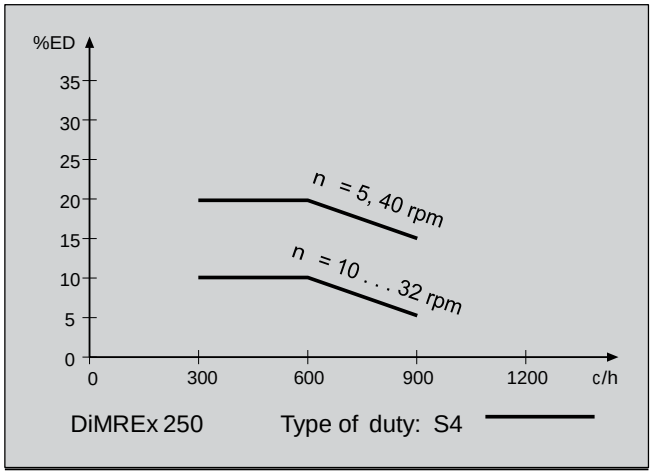
Actuator Model	Actuator Speed (rpm)	Required Min. Length of Signal for Operating into Same Direction (ms)***	Hysteresis (ms)	Torque Adjustment Range (N·m)	Max. Modulating Torque (N·m)	Connection Flange to DIN EN ISO 5210 (Standard)	Connection Flange to DIN EN ISO 5210 (Special Request)	Connection Flange to DIN EN ISO 3210 (Special Request)	Max. Allowable Stem Diameter Output Drive A* (mm)	Max. Allowable Axial Force Output Drive "A" (kN)
DiMREx 30	5	65	290	15-30	15	F07 - -	- - F10	- - G0	24 - 28	30 - 40
	10	65	84							
	16	65	53							
	25	65	34							
	32	65	26							
	40	65	22							
DiMREx 59	5	65	290	30-60	30	F10 - -	- - F07	G0 - -	28 - 24	40 - 30
	10	65	84							
	16	65	53							
	25	65	34							
	32	65	26							
	40	65	22							
DiMREx 60	5	65	400	30-60	30	F10	F07 - F14	- G0 G1/2	32 40 40	60 60 40
	10	65	200							
	16	65	122							
	25	65	48							
	32	65	39							
	40	65	31							
DiMREx 120	5	65	400	60-120	60	F10 - -	- - F14	G0 - G1/2	40 - 40	60 - 60
	10	65	200							
	16	65	122							
	25	65	48							
	32	65	39							
	40	65	31							
DiMREx 250	5	65	127	120-250	120	F14	F16	G1/2	52	120
	10	65	64							
	16	65	39							
	25	65	25							
	32	65	21							
	40	65	16							
DiMREx 500	5	65	127	200-500	200	F14	F16	G1/2	52	160
	10	65	64							
	16	65	39							
	25	65	25							
	32	65	21							
	40	65	16							
DiMREx 1000**	5	40	117	500-1000	500	F16	-	G3	65	190
	10	40	66							

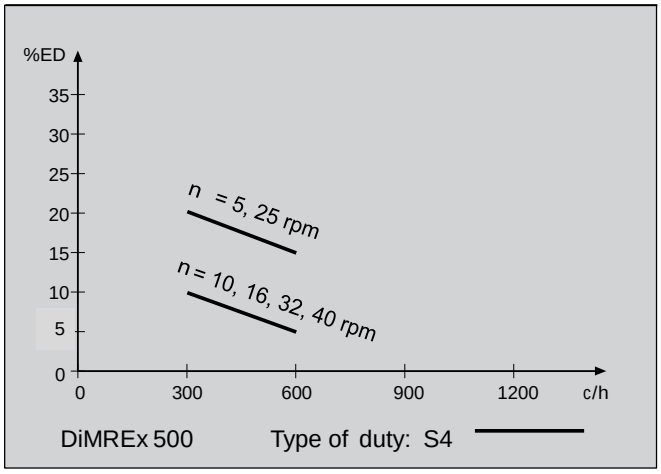
* For model B, B1, B2, and C please consider dimensions D5
** Max. duty cycle 10% max operations per hour 300 (c/h)
*** Without consideration of signal running times caused by control processes
\+ On request







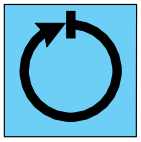




Percentage of operation (% ED) within one hour in relation to number of duty cycles (c/h) per hour for different actuator output speeds (n_{ab}) at temperature of max. 60° C (140° F)

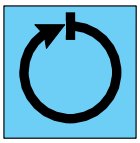
1.2 Motor Data Multi-Turn

Multi-Turn Actuators for On-Off Duty DiMEx



Actuator Model	Actuator Speed 50 Hz (rpm)	Actuator Speed 60 Hz (rpm)	Rated Power 50 Hz (kW)	Rated Power 60 Hz (kW)	Rated Current (A)	Current Consumption at Rated Torque (A)*	Starting Current (A)	Power Factor (cos ϕ)	Efficiency (%)
DiMEx 30 S2-15 min	5	6	0.12	0.14	0.53	0.46	1.5	0.66	50
	10	12	0.12	0.14	0.53	0.48	1.5	0.66	50
	16	19	0.12	0.14	0.53	0.53	1.5	0.66	50
	25	30	0.12	0.14	0.53	0.65	1.5	0.66	50
	32	38	0.34	0.40	1.20	1.00	4.3	0.72	59
	40	48	0.25	0.30	1.10	1.20	2.7	0.65	50
	50	60	0.34	0.40	1.20	1.20	4.3	0.72	59
	80	96	0.34	0.40	1.20	1.70	4.3	0.72	59
	120	144	0.34	0.40	1.20	1.80	4.3	0.72	59
	160	192	0.75	0.90	2.00	2.30	8.8	0.77	70
DiMEx 59 S2-15 min	5	6	0.12	0.14	0.53	0.54	1.5	0.66	50
	10	12	0.12	0.14	0.53	0.58	1.5	0.66	50
	16	19	0.25	0.30	1.10	1.10	2.7	0.65	50
	25	30	0.25	0.30	1.10	1.30	2.7	0.65	50
	32	38	0.34	0.40	1.20	1.40	4.3	0.72	59
	40	48	0.40	0.48	1.50	1.80	5.1	0.63	62
	50	60	0.75	0.90	2.00	2.00	8.8	0.77	70
	80	96	0.75	0.90	2.00	2.90	8.8	0.77	70
	120	144	0.75	0.90	2.00	3.20	8.8	0.77	70
	160	192	0.75	0.90	2.00	4.30	8.8	0.77	70
DiMEx 120 S2-15 min	5	6	0.34	0.41	1.30	1.10	3.5	0.63	59
	10	12	0.42	0.50	1.15	1.50	4.6	0.81	67
	16	19	0.90	1.10	2.30	2.90	9.0	0.80	70
	25	30	0.56	0.67	1.70	2.60	5.7	0.72	69
	32	38	0.90	1.10	2.30	2.50	9.0	0.80	70
	40	48	0.75	0.90	2.50	3.50	8.6	0.62	70
	50	60	0.90	1.10	2.30	3.50	9.0	0.80	70
	80	96	1.50	1.80	3.10	5.10	14.6	0.89	80
	120	144	1.60	1.92	3.70	7.70	20.5	0.80	80
	160	192	1.60	1.92	3.70	9.20	20.5	0.80	80
DiMEx 249 S2-15 min	5	6	0.34	0.40	1.30	1.80	3.5	0.63	59
	10	12	0.56	0.67	1.70	1.80	5.7	0.72	69
	16	19	0.56	0.67	1.70	2.60	5.7	0.72	69
	25	30	0.75	0.90	2.50	4.20	8.6	0.62	70
	32	38	1.50	1.80	3.10	6.00	14.6	0.89	80
	40	48	0.80	0.95	3.60	6.00	11.2	0.50	67
	50	60	1.50	1.80	3.10	7.00	14.6	0.89	80
	80	96	1.60	1.90	3.70	9.80	20.5	0.80	80

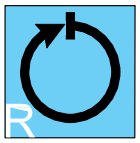
All shown figures are based on 400V/3PH/50 Hz and 480V/3PH/60Hz.
*The rated actuator torque corresponds to the max. adjustable torque. The values based on 20° C (68° F) ambient temperature.
Deviations may occur especially at low temperatures.
+ On request



Actuator Model	Actuator Speed 50 Hz (rpm)	Actuator Speed 60 Hz (rpm)	Rated Power 50 Hz (kW)	Rated Power 60 Hz (kW)	Rated Current (A)	Current Consumption at Rated Torque (A)*	Starting Current (A)	Power Factor (cos ϕ)	Efficiency (%)
DiMEx 250 S2-15 min	5	6	0.56	0.67	1.70	1.70	5.7	0.72	69
	10	12	0.90	1.10	2.30	2.50	9.0	0.80	70
	16	19	1.50	1.80	3.10	3.90	14.6	0.89	80
	25	30	0.75	0.90	2.50	5.50	8.6	0.62	70
	32	38	1.50	1.80	3.10	0.00	14.6	0.89	80
	40	48	2.00	2.40	4.80	7.10	25.0	0.77	78
	50	60	1.50	1.80	3.10	8.80	14.6	0.89	80
	80	96	1.60	1.90	3.70	10.50	20.5	0.80	80
	120	144	4.00	4.80	9.00	15.00	57.0	0.80	81
	160	192	6.00	7.20	13.90	19.30	76.0	0.78	82
DiMEx 500 S2-10 min	32	38	4.00	4.80	9.00	10.50	57.0	0.80	81
	40	48	4.50	5.30	11.10	16.00	57.0	0.70	78
	50	60	4.00	4.80	9.00	15.50	57.0	0.80	81
	80	96	6.00	7.10	13.90	22.00	76.0	0.78	82
	120	144	8.50	10.00	18.70	29.00	112.0	0.82	82
	160	192	8.50	10.00	18.70	38.00	112.0	0.82	82
DiMEx 1000 S2-10 min	5	6	0.80	0.95	3.60	7.30	11.2	0.50	67
	10	12	1.60	1.90	3.70	12.80	20.5	0.80	80
	16	19	4.00	4.80	9.00	15.00	57.0	0.80	81
	25	30	4.50	5.30	11.10	15.50	57.0	0.77	78
	32	38	4.00	4.80	9.00	23.00	57.0	0.80	81
	40	48	6.00	7.10	15.10	23.00	64.0	0.73	78
	50	60	6.00	7.10	13.90	30.50	76.0	0.78	82
	80	96	8.50	10.00	18.70	41.50	112.0	0.82	82
DiMEx 2000 S2-15 min	20	24	2.50	2.94	6.50	+	35.0	0.77	76
	40	48	5.00	5.88	11.50	+	52.0	0.81	82
	80	96	7.50	8.82	16.50	+	75.0	0.85	77
	120	144	7.50	8.82	16.50	+	75.0	0.85	77
	160	192	7.50	8.82	16.50	+	75.0	0.85	77

All shown figures are based on 400V/3PH/50Hz and 480V/3PH/60Hz.
*The rated actuator torque corresponds to the max. adjustable torque. The values based on 20° C (68° F) ambient temperature.
Deviations may occur especially at low temperatures.
+ On request

Multi-Turn Actuators for Modulating Duty DiMREx



Actuator Model	Actuator speed 50 Hz (rpm)	Actuator speed 60 Hz (rpm)	Rated power 50 Hz (kW)	Rated power 60 Hz (kW)	Rated current (A)	Current consumption at rated torque (A)*	Starting current (A)	Power factor (cos ϕ)	Efficiency (%)
DiMREx 30	5	6	0.12	0.14	0.53	0.46	1.5	0.66	50
	10	12	0.12	0.14	0.53	0.48	1.5	0.66	50
	16	19	0.12	0.14	0.53	0.53	1.5	0.66	50
	25	30	0.12	0.14	0.53	0.65	1.5	0.66	50
	32	38	0.34	0.40	1.20	1.00	4.3	0.72	59
	40	48	0.25	0.30	1.10	1.20	2.7	0.65	50
DiMREx 59	5	6	0.12	0.14	0.53	0.54	1.5	0.66	50
	10	12	0.12	0.14	0.53	0.58	1.5	0.66	50
	16	19	0.25	0.30	1.10	1.10	2.7	0.65	50
	25	30	0.25	0.30	1.10	1.30	2.7	0.65	50
	32	38	0.34	0.40	1.20	1.40	4.3	0.72	59
	40	48	0.40	0.48	1.50	1.80	5.1	0.63	62
DiMREx 60	5	6	0.12	0.14	0.57	0.64	1.5	0.62	50
	10	12	0.21	0.25	0.65	0.86	2.3	0.76	62
	16	19	0.42	0.50	1.15	1.40	4.6	0.81	67
	25	30	0.18	0.22	0.76	1.10	2.0	0.64	54
	32	38	0.42	0.50	1.15	1.50	4.6	0.81	67
	40	48	0.34	0.40	1.30	1.80	3.5	0.63	59
DiMREx 120	5	6	0.34	0.41	1.30	1.10	3.5	0.63	59
	10	12	0.42	0.50	1.15	1.50	4.6	0.81	67
	16	19	0.90	1.10	2.30	2.90	9.0	0.80	70
	25	30	0.56	0.67	1.70	2.60	5.7	0.72	69
	32	38	0.90	1.10	2.30	2.50	9.0	0.80	70
	40	48	0.75	0.90	2.50	3.50	8.6	0.62	70
DiMREx 250	5	6	0.56	0.67	1.70	1.70	5.7	0.72	69
	10	12	0.90	1.10	2.30	2.50	9.0	0.80	70
	16	19	1.50	1.80	3.10	3.90	14.6	0.89	80
	25	30	0.75	0.90	2.50	5.50	8.6	0.62	70
	32	38	1.50	1.80	3.10	5.00	14.6	0.89	80
	40	48	2.00	2.40	4.80	7.10	25.0	0.77	78
DiMREx 500	5	6	0.75	0.90	2.50	3.20	8.6	0.62	70
	10	12	1.50	1.80	3.10	4.70	14.6	0.89	80
	16	19	1.60	1.90	3.70	7.70	20.5	0.80	80
	25	30	2.00	2.40	4.80	9.50	25.0	0.77	78
	32	38	4.00	4.80	9.00	10.50	57.0	0.80	81
	40	48	4.50	5.30	11.10	16.00	57.0	0.77	78
DiMREx 1000	5	6	2.00	2.40	4.80	5.20	25.0	0.77	78
	10	12	3.00	3.60	8.10	9.40	32.0	0.71	76

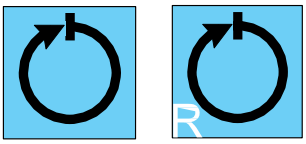
All shown figures are based on 400V/3PH/50Hz and 480V/3PH/60Hz.

* The rated actuator torque corresponds to the max. adjustable torque. The values are based on 20° C (68° F) ambient temperature. Deviations may occur especially at low temperatures.
+ On request

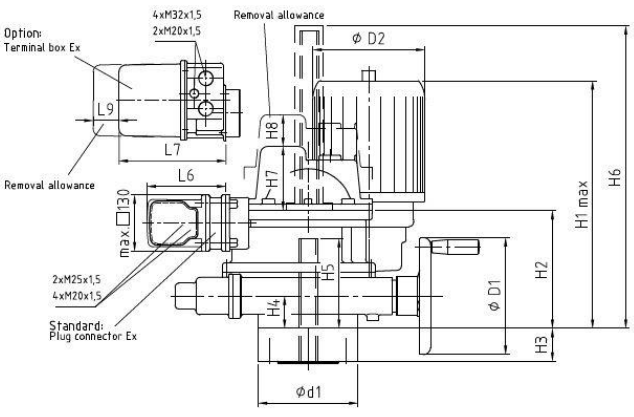
1.3 Actuator Dimensions

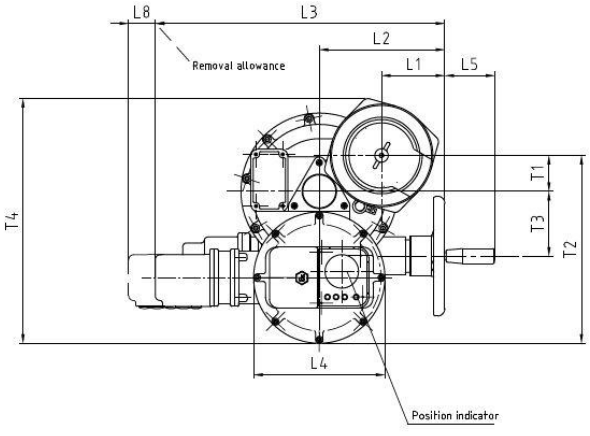
Multi-Turn Actuators for On-Off Duty DiMEx

Multi-Turn Actuators for Modulating Duty DiMREx

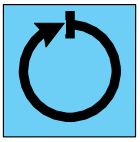


Actuator DiM, DiMR Models	30	59	60	120	249	250	500	1000	2000
Md (N·m)	10-30	20-60	20-60	40-12	80-25	80-250	150-50	300-1000	800-2000
Weight (kg)	31	31	42	46	46	80	91	101	290
Dimensions (mm)									
d1	90	125	125	125	175	175	175	210	350
D1	160	160	160	250	250	250	400	500	500
D2 Max.	127	127	160	160	160	240	240	240	300
H1 Max.	325	325	370	370	370	499	554	554	850
H2	185	185	193	193	193	253	253	253	230
H3 Form A	36	42	46	46	58	56	56	70	130
H3 Form B, B1, B2, C	36	46	46	46	70	66	66	81	130
H3 Form B3, B4, D, E	18	17	16	16	22	23	23	28	30
H4	49	49	54	54	54	69	69	69	124
H5	140	140	160	160	160	210	210	210	180
H6	250	250	270	270	270	452	452	452	500
	352	352	372	372	372	702	702	702	-
	452	452	472	472	472	952	952	952	-
	-	-	572	572	572	-	-	-	-
	-	-	672	672	672	-	-	-	-
L1	117	117	136	136	136	132	179	179	193
L2	201	201	239	239	239	262	309	309	347.5
L3 max	645	645	660	660	660	670	715	715	859
L4	233	233	245	245	245	245	245	245	274
L5	80	80	80	80	80	102	102	102	80
L6	170	170	170	170	170	170	170	170	-
L7	230	230	230	230	230	130	130	130	-
L8	60	60	60	60	60	60	60	60	-
L9	145	145	145	145	145	145	145	145	-
T1	45	45	48	48	48	75	75	75	155
T2	298	298	308	308	308	317	317	317	543
T3	98	98	407	107	107	135	135	135	200
T4	408	408	437	437	437	510	510	510	695



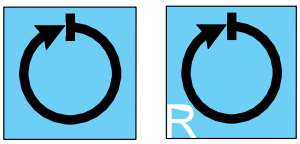


Multi-Turn Actuators Output Drive Dimensions

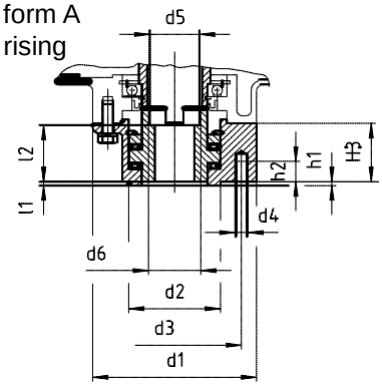


Actuator DiMEx Model		30	59	60 120	249	250 500	1000	2000
Actuator DiMREx Model		30	59	60 120		250 500	1000	
Size DIN EN ISO 5210 DIN 3210		F07	F10	F10	F14	F14	F16	F25
		-	G0	G0	G1/2	G1/2	G3	-
Dimensions (mm)								
$b1_{JS9}$	For B1, B	8	12	12	18	18	22	28
$b2_{H11}$		14	14	14	20	20	24	30
$b3_{h9}$		5	6	6	8	8	12	-
$b4_{JS9}$	For B3, E	5	6	6	8	8	12	14
d1		90	125	125	175	175	210	350
$d2_{f8}$	DIN EN ISO 5210 DIN 3210	55	70	70	100	100	130	200
		-	60	60	100	100	130	-
d_3		70	102	102	140	140	165	254
d_4	4 x	M8	M10	M10	M16	M16	M20	M16
d_5		26	30	40.5	40.5	52.5	65.5	85
$d_{6\,max}$		24	28	40	40	52	65	85
$d_{7\,H9}$	B1, B	28	42	42	60	60	80	70
$d_{7\,max}$	B2,B	28	42	42	60	65	80	70
d_8		42	54	54	80	85	110	139.9
d_9		26	28	28	38	38	47	85
$d_{10\,H9}$	B3, E	16	20	20	30	30	40	50
$d_{10\,max}$	B4, E	16	20	30	30	40	50	50
$d_{1\,g6}$		16	20	20	30	30	40	-
h_1		3	3	3	4	4	5	5
h_2		12	16	16	22	23	35	24
h_3		11	11	11	14	14	17	16
h_4		3	3	3	4	4	5	5
l_1		3	3	3	5	4	5	5
l_2		34	41	40	54	54	68.5	130
l_3		36	45	45	66	66	81	-
l_4		40	50	50	70	70	90	-
l_5		45	55	55	76	76	96	-
l_6		41	56	56	79	79	98	118
t_1	For B1, B	31.3	45.3	45.3	64.4	64.4	85.5	106.4
t_2		18	22.5	22.5	33	33	43	-
t_3	For B3, E	18.3	22.8	22.8	33.3	33.3	43.3	53.8

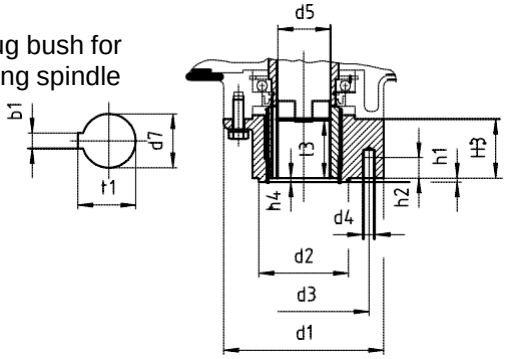
Output Drive Dimensional Drawings



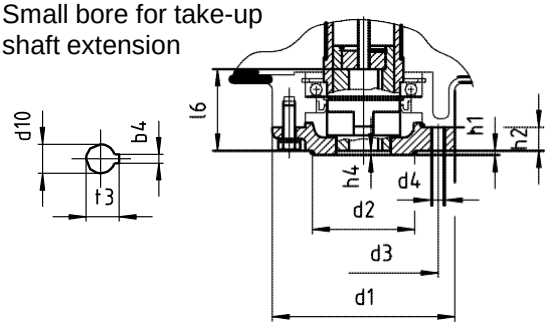
Output drive form A
Stem nut for rising spindle



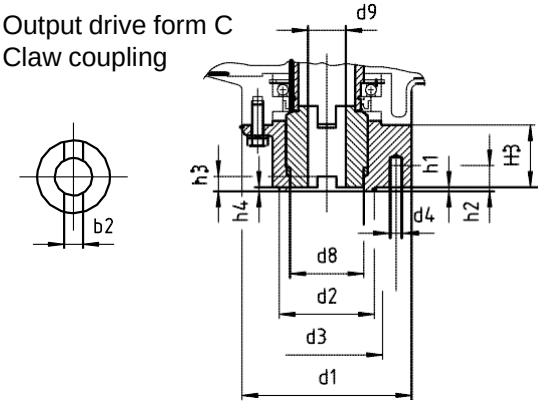
Output drive form B1, B2, B
Plug bush for rising spindle



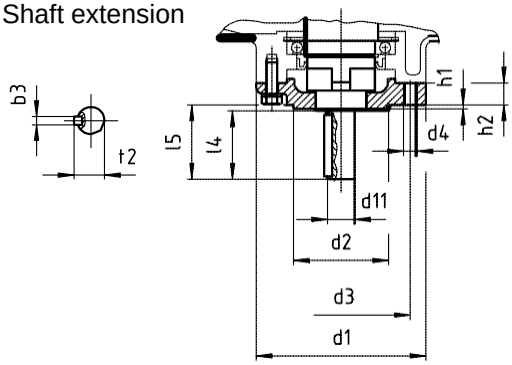
Output drive form B3, B4, E
Small bore for take-up shaft extension



Output drive form C
Claw coupling



Output drive form D
Shaft extension



2.0 Part-Turn

2.1 Technical Data Part turn

Part-Turn Actuators for On-Off Duty DPiMEx

Part-Turn Actuators for Modulating Duty DPiMREx

Actuator Model	Operating Time for 90° ϟ(sec) 50 Hz	Operating Time for 90° ϟ(sec) 60 Hz	Torque adjustment Range (Nm)	Max. Modulating Torque (Nm)	Torque Adjustment Range Modulating (Nm)	Connection Flange According to DIN EN ISO 5211	Max. Bore Diameter of Ø Output Drive V (mm)	Max. Width of Square Bore Output Drive L/D (mm)	Type of Duty S 2-… (min)	Type of Duty S 4-.. (%ED)
DPiM(R)Ex 150	8/16/24/34	7/13/20/28	50-150	75	75-150	F05 F07	28	22	15	25
DPiM(R)Ex 299	8/16/24/34	7/13/20/28	125-300	150	150-300	F07 F10*	28	22	15	25
DPiM(R)Ex 300	8/16/24/34	7/13/20/28	125-130	150	150-130	F10 F12*	38	30	15	25
DPiM(R)Ex 450	8/16/24/34	7/13/20/28	250-450	225	250-450	F10 F12*	38	30	15	25
DPiM(R)Ex 600	8/16/32/48/67	7/13/26/40/56	200-600	300	300-600	F12 F14*	50	36	15	25
DPiM(R)Ex 900	8/16/32/48/67	7/13/26/40/56	500-900	450	500-900	F12 F14*	50	36	15	25
DPiM(R)Ex 1200	7/18/36/55/77	6/15/30/46/65	500-1200	600	600-1200	F14 F16*	60	46	15	25
DPiM(R)Ex 1800	7/18/36/55/77	6/15/30/46/65	1000-1800	900	1000-1800	F14 F16*	60	46	15	25

*On special request
The max. torques given by DIN EN ISO 5211 to each flange size must not be exceeded.
For higher torques please, request more information.

2.2 Motor Data Part-Turn

Part-Turn Actuators for On-Off Duty DPiMEx

Part-Turn Actuators for Modulating Duty DPiMREx

Actuator Model	Operating Time for 90° ⊁ (sec) 50 Hz	Operating Time for 90° ⊁ (sec) 60 Hz	Rated Power 50 Hz (kW)	Rated Power 60 Hz (kW)	Rated Current (A)	Starting Current (A)	Power factor/ Cos (ϕ)	Efficiency Eta (%)
DPiM(R)Ex 150	8	7	0.34	0.41	1.2	4.3	0.72	59
	16	13	012	0.14	0.53	1.5	0.66	50
	24	20	0.10	0.12	0.49	1.24	0.53	56
	34	28	0.08	0.10	0.47	0.85	0.58	43
	8	7	0.34	0.41	1.2	4.3	0.72	59
DPiM(R)Ex 299	16	13	0.12	0.14	0.53	1.5	0.66	50
	24	20	0.1	0.12	0.49	1.24	0.53	56
	34	28	0.08	0.10	0.47	0.85	0.58	43
DPiM(R)Ex 300	8	7	0.34	0.41	1.2	4.3	0.72	59
	16	13	0.12	0.14	0.53	1.5	0.66	50
	24	20	0.1	0.12	0.49	1.24	0.53	56
	34	28	0.08	0.10	0.47	0.85	0.58	43
DPiM(R)Ex 450	8	7	0.34	0.41	1.2	4.3	0.72	59
	16	13	0.12	0.14	0.53	1.5	0.66	50
	24	20	0.1	0.12	0.49	1.24	0.53	56
	34	28	0.08	0.10	0.48	0.85	0.58	43
DPiM(R)Ex 600	8	7	0.34	0.41	1.2	4.3	0.72	59
	16	13	0.34	0.41	1.2	4.3	0.72	59
	32	26	0.12	0.14	0.53	.5	0.66	50
	48	40	0.1	0.12	0.49	1.24	0.53	56
	67	56	0.08	0.10	0.47	0.85	0.58	4.3
DPiM(R)Ex 900	8	7	0.34	0.41	1.2	4.3	0.72	59
	16	13	0.34	0.41	1.2	4.3	0.72	59
	32	26	0.12	0.14	0.53	1.5	0.66	50
	48	40	0.1	0.12	0.49	1.24	0.53	56
	67	56	0.08	0.10	0.47	0.85	0.58	43
DPiM(R)Ex 1200	7	6	0.34	0.41	1.2	4.3	0.72	59
	18	15	0.34	0.41	1.2	4.3	0.72	59
	36	30	0.12	0.14	0.53	1.5	0.66	50
	55	46	0.1	0.12	0.49	1.24	0.59	56
	77	65	0.08	0.10	0.47	0.85	0.58	43
DPiM(R)Ex 1800	7	6	0.34	0.41	1.2	4.3	0.72	59
	18	15	0.34	0.41	1.2	4.3	0.72	59
	36	30	0.12	0.14	0.53	1.5	0.66	50
	55	46	0.1	0.12	0.49	1.24	0.53	56
	77	65	0.08	0.10	0.47	0.85	0.58	43

For higher torques, refer on page 12.

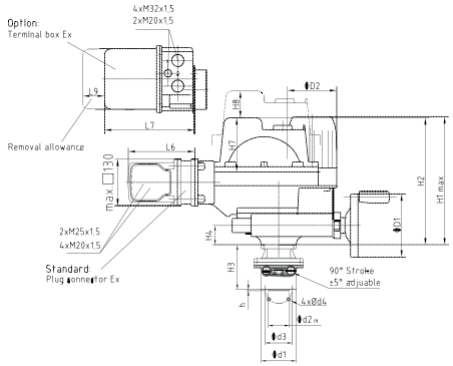
2.3 Actuator Dimensions

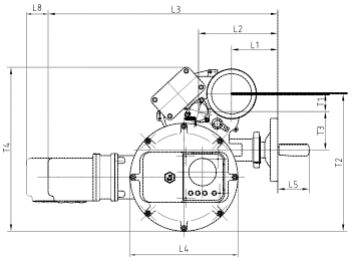
Part-Turn Actuators for On-Off Duty DPiMEx

Part-Turn Actuators for Modulating Duty DPiMREx

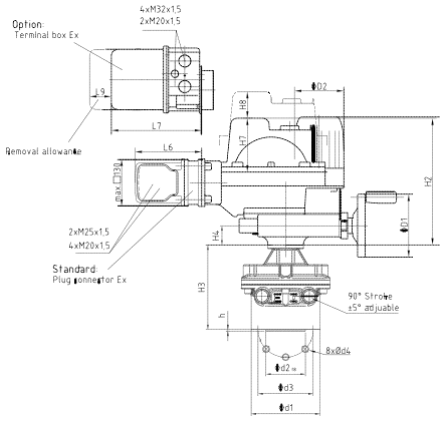
Actuator DPiM(R)Ex Model	150/299	300/450	600/900	1200/1800
Weight (kg) app.	38	40	46	51
Dimensions (mm)				
d2	170	170	170	170
D1	160	160	250	250
D2	125	125	125	125
H1 max.	240	240	240	240
H2	150	150	150	150
H3	113.5	131	175	215
H4	49	49	49	49
H7	163	163	163	163
L1	117	117	117	117
L2	201	201	201	201
L3 max.	645	645	645	645
L4	233	233	233	233
L5	80	80	80	80
L6	128	128	128	128
L7	230	230	230	230
T1	45	45	45	45
T2	179	179	179	179
T3	97.5	97.5	97.5	97.5
T4	305	305	305	305
T5	153	153	153	153

DP 150/299





From DP 300



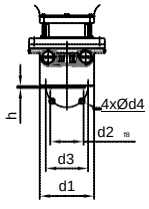
Part-Turn Actuators Output Mounting Dimensions

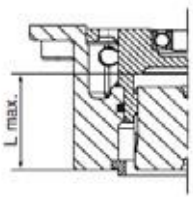
Actuator DPiM(R)Ex Model	150/299			300/450		600/900		1200/1800	
Size	F05	F07	F10	F10	F12	F12	F14	F14	F16
DIN EN ISO 5211									
Dimensions (mm)									
d1	90	90	125	125	150	150	175	175	210
d2 f8	35	55	70	150	175	85	100	100	130
d3	50	70	102	85	100	125	140	140	165
d4	M6	M8	M10	M10	M12	M12	M16	M16	M20
d5	18			18		25		25	
d6	11			11		14		18	
h*	2.5			2.5		2.5		4	
h1	12			12		16		16	
h2	110			130		170		180	
Threat Depth d4	12	15	16	18	19	22	25	29	32
Lmax	40			50	82	62	102	77	127
l5	23			23		30		34.85	
l6	30			30		31		34	
l8	20			20		26		26	
l9	80			80		90		100	
l10	40			40		45		50	
l11	35			30		25		25	
l12	120			120		135		149.85	
l13	80			80		110		110	
l14	150			150		190		225	
r	200			200		250		250	

* Allowance for spigot is not available as standard. The spigot ring is a separate, optional component.

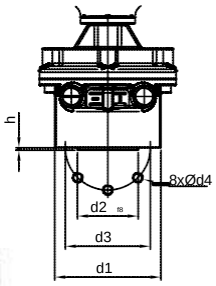
Direct Mounting

DP 150/299

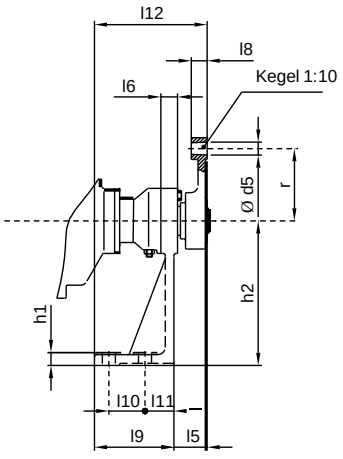


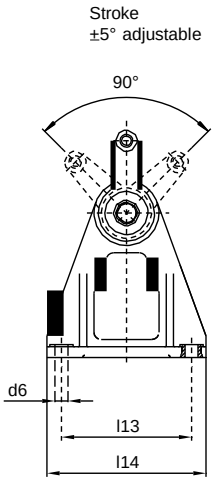


From DP 300



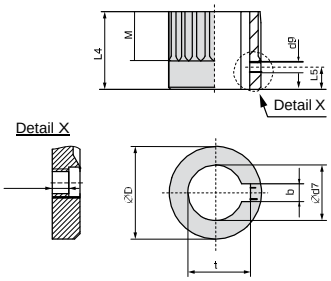
Foot and Lever





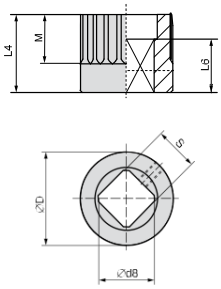
Output Drive Dimensional Drawings

Bore according to ISO 5211
With keyway (form V)
according to DIN 6885-1



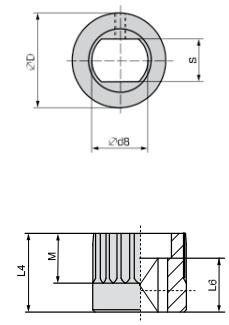
Actuator DPiM(R)Ex Model	150		299		300/450		600/900		1200/1800	
ISO 5211	F05	F07	F07	F10	F10	F12	F12	F14	F14	F16
Ø D	41.75		41.75		51.75		67.6		81.6	
b JS9* (mm)	6		6		8		10		14	
Ø d7 H8** (mm)	18		22		28		36		48	
Ø d7 max. (mm)	28		28		38		50		60	
d9*** (mm)	M5		M5		M6		M6		M6	
L4 (mm)	35		35		45	75	55	95	65	115
L5*** (mm)	8		8		10		10		10	
M (mm)	20		20		30		40		47	40
t* (mm)	20.8		24.8		31.3		39.3		51.8	

Square bore (form L/D)
according to ISO 5211



Actuator DPiM(R)Ex Model	150		299		300/450		600/900		1200/1800	
ISO 5211	F05	F07	F07	F10	F10	F12	F12	F14	F14	F16
Ø D	41.75		41.75		51.75		67.6		81.6	
Ø d8 min**	18.1		22.2		28.2		36.2		48.2	
Ø d8 max.	28.2		28.2		40.2		48.2		60.2	
L4 (mm)	35		35	60	45	75	55	95	65	115
L6 min. (mm)	30		30		30		30		40	
M (mm)	20		20		30		40		47	40
sH 11** (mm)	14		17		22		27		36	
sH 11 max. (mm)	22		22		30		36		46	

Bore with two-flats (form H)
according to ISO 5211

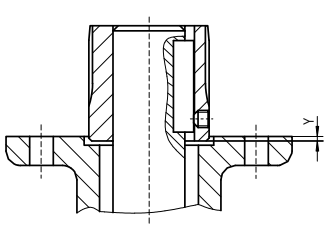


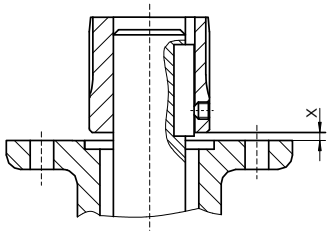
Actuator DPiM[R]Ex Model	150		299		300-450		600/900		1200/1800	
ISO 5211	F05	F07	F07	F10	F10	F12	F12	F14	F14	F16
Ø D	41.75		41.75		51.75		67.6		81.6	
Ø d8 min.**	18.1		22.2		28.2		36.2		48.2	
Ø d8 max.	28.2		28.2		36.2		48.2 (48*****)		60.2	
L4 (mm)	35		35	60	45	75	55	95	65	115
L6 min. (mm)	25		25		25		30		40	
M (mm)	20		20		30		40		47	40
s H11** (mm)	14		17		22		27		36	
s H11 max. (mm)	22		22		27		36 (41*****)		46	

Mounting position of coupling

X max. (mm)	3	4	5	8
Y max. (mm)	2	5	10	10

*Dimensions depend on Ø d7, refer to DIN 6885-1
**Recommended size according to ISO 5211
***Thread with grub screw
****According to DIN 79
*****According to DIN 475

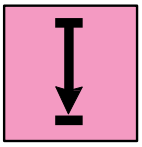




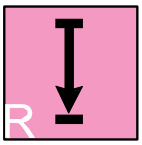
3.0 Linear Actuator

3.1 Technical Data

3.1.1 Thrust Actuators for On-Off Duty DiMEx + DSE



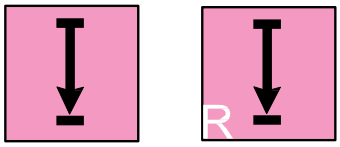
Actuator Model	Actuator Speed (rpm)	Operating Speed (mm/min)	Adjustment Range (kN)	Stroke (mm)	Connection Flange DIN EN ISO 5210	Direct Mounting	Direct Mounting with Foot
DiMEx 30 + DSE 12	5	25	4-11.5	50-500	F07 (F10)	yes	yes
	10	50					
	16	80					
	25	125					
	32	160					
	40	200					
	50	250					
DiMEx 59 + DSE 25	5	25	8-23	50-500	(F7) F10	yes	yes
	10	50					
	16	80					
	25	125					
	32	160					
	40	200					
	50	250					
DiMEx 120 + DSE 50	5	30	12.5-37.5	63-400	F10	yes	yes
	10	60					
	16	96					
	25	150					
	32	192					
	40	240					
	50	300					
DiMEx 250 + DSE 70	5	35	25-64	80-400	F14	yes	yes
	10	70					
	16	112					
	25	175					
	32	224					
	40	280					
	50	350					
DiMEx 500 + DSE 100	5	35	50-128	80-400	F14	yes	yes
	10	70					
	16	112					
	25	175					
	32	224					
	40	280					
	50	350					
DiMEx 1000 + DSE 200	5	40	87-217	100-500	F16	yes	yes
	10	80					
	16	128					
	25	200					
	32	256					
	40	320					
	50	400					



3.1.2 Thrust Actuators for Modulating Duty DiMREx + DSE

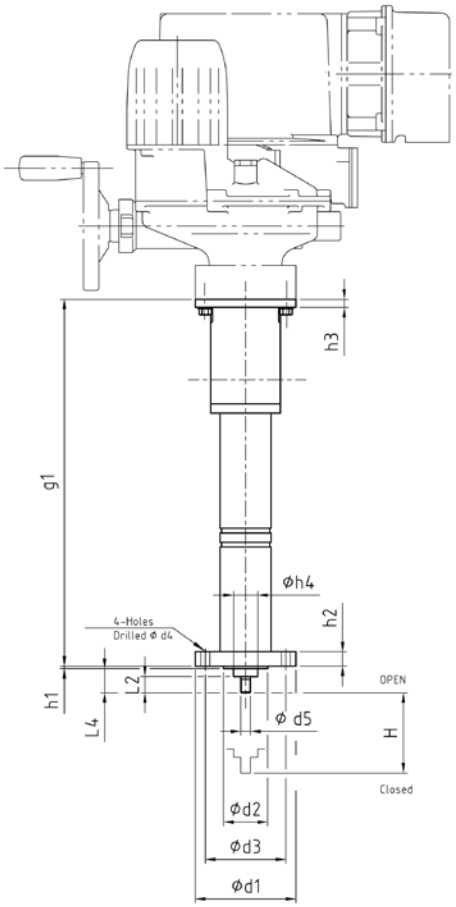
Actuator Model	Actuator Speed (rpm)	Operating Speed (mm/min)	Adjustment Range (kN)	Max. Modulating Thrust (kN)	Stroke (mm)	Connection Flange DIN EN ISO 5210	Direct Mounting	Direct Mounting with Foot
DiMREx 30 + DSE 12	5	25	6-11.5	6	50-200	F07	yes	yes
	10	50						
	16	80						
	25	125						
	32	160						
	40	200						
DiMREx 59 + DSE 25	5	25	12-23	12	50-200	F10	yes	yes
	10	50						
	16	80						
	25	125						
	32	160						
	40	200						
DiMREx 120 + DSE 50	5	30	20-37.5	20	63-400	F10	yes	yes
	10	60						
	16	96						
	25	150						
	32	192						
	40	240						
DiMREx 250 + DSE 70	5	35	30-64	30	80-400	F14	yes	yes
	10	70						
	16	112						
	25	175						
	32	224						
	40	280						
DiMREx 500 + DSE 100	5	35	64-128	52	80-400	F14	yes	yes
	10	70						
	16	112						
	25	175						
	32	224						
	40	280						
DiMREx 1000 + DSE 200	5	40	110-217	87	100-500	F16	yes	yes
	10	80						

3.2 Connection Dimensions of Output Drive and Thrust Unit with Foot



Actuator DiM(R)Ex Model	30 + DSE 12					59 + DSE 25					120 + DSE 50				250 + DSE 70				500 + DSE 100				1000 + DSE 200			
DIN EN ISO 5210	F10					F10					F10				F14				F14				F16			
H (stroke)	50	100	200	400	500	50	100	200	400	500	63	125	250	400	80	125	250	400	80	160	320	400	100	200	400	500
Dimensions (mm)																										
d1 Ø	125					125					125				175				175				210			
d2 Ø	70					70					70				100				100				130			
d3 Ø	102					102					102				140				140				165			
d4 Ø	11					11					11				18				8				21			
d5 Ø	M12 x 1.25					M16x 1.5					M20 x 1.5				M36 x 3				M36 x 3				M42 x 3			
g1	195	245	345	545	645	195	245	345	545	645	238	300	425	575	296	376	536	618	296	376	536	618	367	467	667	767
h1	3					3					3				4				4				4			
h2	18					18					18				22				22				33			
h3	15					15					15				18				18				18			
h4 Ø	30					30					40				40				40				50			
L2	20					25					30				55				55				65			
L4	47					52					57				78				78				94			

Foot dimensions are available upon request.

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HSE Policy Statement

At Cameron, we are committed ethically, financially and personally to a working environment where no one gets hurt and nothing gets harmed.