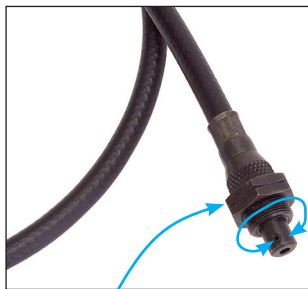
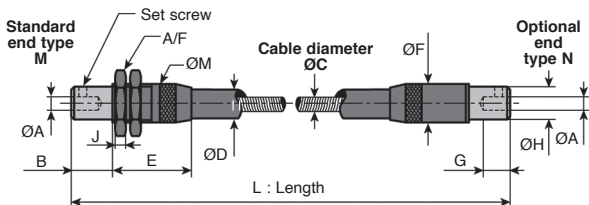




- Suitable for most applications due to the use of self lubricating bronze bearings in the end connectors
- Allows the driving and driven elements to be mounted apart
- Obstacles can be avoided, multiple bends possible
- Position of the driven element is no longer determined by the position of the driving equipment
- Output efficiency >95%
- Dampens vibration
- Woven wire flexible shaft
- Materials:
 - Wires: blackened XC25 steel
 - Sheath: PVC



standard end
(with 2 locknuts)



Dark grey areas are fixed parts.
Light grey areas are revolving parts.

Part number	ØC core	ØM	ØA	B	ØD	E	A/F	ØF	G	ØH	J	Screw
FDSQ4-L	3,80	M15x1,0	4	10	10,5	43	22	15,0	8	12,5	4	M3
FDSQ5-L	4,75	M18x1,0	5	16	14,0	50	24	18,0	12	15,5	4	M3
FDSQ6-L	6,35	M21x1,0	6	17	17,0	59	27	21,0	14	18,5	4	M4
FDSQ8-L	8,00	M22x1,5	8	23	17,5	63	30	22,0	17	18,5	4	M4
FDSQ9-L	9,52	M26,5x1,5	10	25	22,5	69	35	26,5	20	23,0	4	M5
FDSQ13-L	12,70	M29,5x1,5	15	31	25,0	84	36	29,5	24	26,0	4	M6

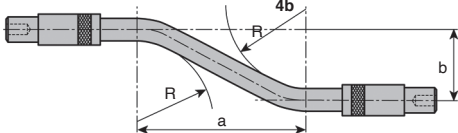
Dimensions in mm

Info.

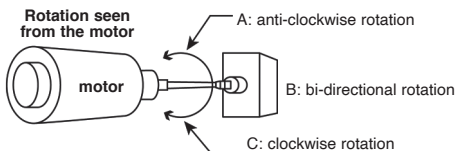
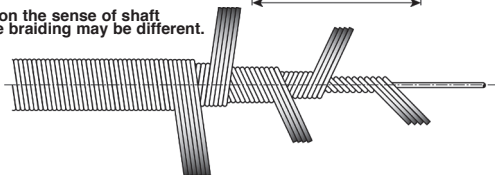
- Replace the "L" in the part number by the length required and add the desired end (R: standard; S: optional)
E.g. **FDSQ4A-500RR**
- Steel core lubricated with oil
- For continuous use, the shaft should be lubricated every 3 months
- Flexible shaft can be removed by unscrewing the knurled part. Check the sealing before re-use
- Delivered pre-bored
- The one-direction versions are no longer available

NOTE: For assembly, the end must be drilled and pinned to the connected shaft. The set screw is only there for positioning. It does not allow torque to be transmitted.

BEND RADIUS
Radius = $\frac{a^2 + b^2}{4b}$ (mm)



Depending on the sense of shaft rotation, the braiding may be different.



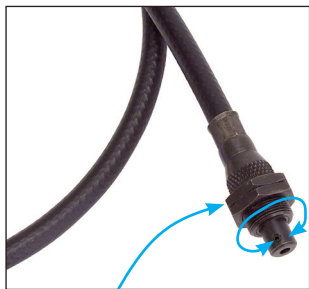
"L" in part number refers to length, see info.

Part number			Price for	Price for	Price for	Price for	Price for	Price for
anti-clockwise	bidirectional	clockwise	500 mm	1000 mm	1500 mm	2000 mm	2500 mm	3000 mm
FDSQ4A-L	FDSQ4B-L	FDSQ4C-L	On request	On request	On request	On request	On request	On request
FDSQ5A-L	FDSQ5B-L	FDSQ5C-L						
FDSQ6A-L	FDSQ6B-L	FDSQ6C-L						
FDSQ8A-L	FDSQ8B-L	FDSQ8C-L						
FDSQ9A-L	FDSQ9B-L	FDSQ9C-L						
FDSQ13A-L	FDSQ13B-L	FDSQ13C-L						

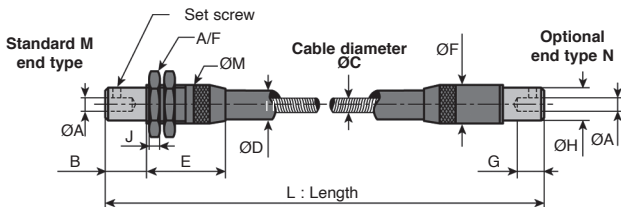
Dimensions in mm



- Ball bearings in the end connectors allow for a higher speed of rotation and more intensive use.
- Allows the driving and driven elements to be mounted apart
- Obstacles can be avoided, multiple bends possible
- Position of the driven element is no longer determined by the position of the driving equipment
- Output efficiency >95%
- Dampens vibration
- Woven wire flexible shaft
- Materials:
 - Wires: blackened XC25 steel
 - Sheath: PVC



standard end
(with 2 locknuts)



Dark grey areas are fixed parts.
Light grey areas are revolving parts.

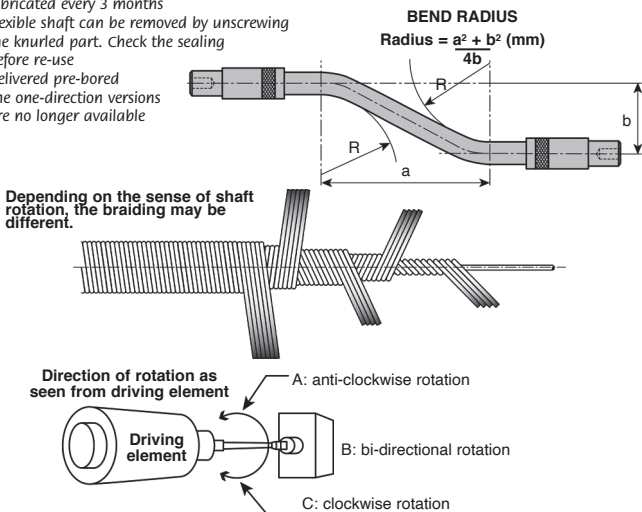
Part number	ØC core	ØM	ØA	B	ØD	E	A/F	ØF	G	ØH	J	Screw
FDS4-L	3,80	M18 x 1,0	4	11,0	10,5	48,0	24	18	8	10,75	4	M3
FDS5-L	4,75	M21 x 1,0	5	14,5	14,0	59,0	27	21	12	14,00	4	M3
FDS6-L	6,35	M27 x 1,0	6	19,5	17,0	66,5	35	27	14	18,00	4	M4
FDS8-L	8,00	M30 x 1,5	8	24,0	17,5	68,5	36	30	17	20,50	4	M4
FDS9-L	9,52	M34 x 1,5	10	25,0	22,5	78,5	41	34	20	24,50	4	M5
FDS13-L	12,70	M38 x 1,5	15	26,5	25,0	85,5	46	38	24	28,00	4	M6
FDS16-L	16,00	M44 x 1,5	16	30,0	32,0	108,5	55	44	25	31,00	4	M6
FDS19-L	19,05	M50 x 1,5	16	31,0	31,0	114,0	60	50	25	36,50	4	M6

Dimensions in mm

Info.

- Replace the "L" in the part number by the length required and add the desired end (M: standard; N: optional)
E.g. **FDS4-500MM**
- Steel core lubricated with oil
- For continuous use, the shaft should be lubricated every 3 months
- Flexible shaft can be removed by unscrewing the knurled part. Check the sealing before re-use
- Delivered pre-bored
- The one-direction versions are no longer available

NOTE: For assembly, the end must be drilled and pinned to the connected shaft. The set screw is only there for positioning. It does not allow torque to be transmitted.



"L" in part number refers to length, see **info**.

Part number			Price for	Price for	Price for	Price for	Price for	Price for
anti-clockwise	bidirectional	clockwise	500 mm	1000 mm	1500 mm	2000 mm	2500 mm	3000 mm
FDS4A-L	FDS4B-L	FDS4C-L	On request	On request	On request	On request	On request	On request
FDS5A-L	FDS5B-L	FDS5C-L						
FDS6A-L	FDS6B-L	FDS6C-L						
FDS8A-L	FDS8B-L	FDS8C-L						
FDS9A-L	FDS9B-L	FDS9C-L						
FDS13A-L	FDS13B-L	FDS13C-L						
FDS16A-L	FDS16B-L	FDS16C-L						
-	FDS19B-L	-						

Dimensions in mm

Masterflex® flexible shaft

FDS
FDSQ

Technical information

		Min. use radius (mm) RU	Max. speed		Torsion deflection depending on twist (0,1 Nm at 1 m)	
			FDS (trpm)	FDSQ	Same (Nm)	Opp. (Nm)
FDS(Q)4	B	75	3 000	200	28°	56,00°
FDS(Q)5	B	100	3 000	200	7,50°	17,00°
FDS(Q)6	B	125	3 000	200	1,50°	3,25°
FDS(Q)8	B	200	2 000	200	0,50°	0,80°
FDS(Q)9	B	200	2 000	200	0,30°	0,63°
FDS(Q)13	B	250	2 000	200	0,11°	0,20°
FDS16	B	300	1 500	-	0,06°	0,13°
FDS19	B	400	1 500	-	0,01°	0,01°

Dimensions in mm

Torsion deflection depending on twist 0,1Nm for 1 meter shaft.

Bend radius (mm)		Max. torque (Nm) depending on bend radius (mm)																	
		75	100	125	150	175	200	250	300	350	400	500	600	650	750	800	1000	1500	
FDS(Q)4	B	0,65	1,20	1,50	1,70	1,80	1,85	1,95	2,00	2,03	2,05	2,10							
FDS(Q)5	B		1,30	1,70	2,05	2,17	2,25	2,34	2,40	2,45	2,50	2,60							
FDS(Q)6	B			4,00	5,00	6,00	7,00	8,00	9,00	9,40	9,80	10,50							
FDS(Q)8	B						10,00	12,50	14,40	15,80	16,50	17,60	18,50						
FDS(Q)9	B						13,00	17,00	20,00	23,00	24,40	26,00	27,20	28,00					
FDS(Q)13	B							23,00	32,00	41,00	45,00	49,00	51,00	51,50	53,00	53,50	56,00		
FDS16	B								20,00	28,00	31,50	36,50	40,00	41,20	43,80	45,00	50,00		
FDS19	B										40,00	50,00	60,00	62,50	65,00	66,20	70,00	75,00	

Direction of rotation : B bi-directional or manual

Masterflex® flexible shaft

Advantages

FDS
FDSQ



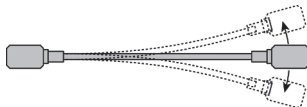
avoids obstacles



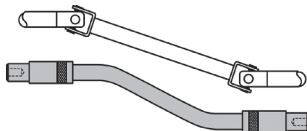
reduces vibrations



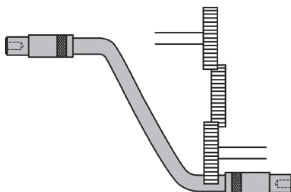
restricted access or control
at a distance



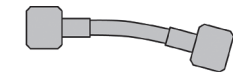
for moving parts



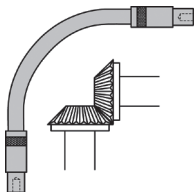
parallel misalignment



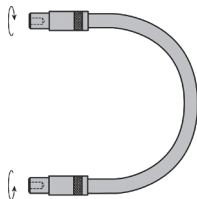
Very large parallel misalignment



angular misalignment



Redirects at 90°



change of direction

Our other products



GCA
Linch pin, Linch



CHAsb63
Hinge without pin,
Polymer pin hinge



ZAmM
Shaft for linear
guides, Hardened
ground steel



CLG2
Moulded plastic spur
gear, Moulded plastic
(nylon)



ZHG5
Plastic spur gear,
Machined plastic
(delrin)



UGCG
Actuator guide kit,
Long housing



DIL
Lever operated
locking bolt, lever
clamp



CQA20
Adjustment slide-
system miniature, 20



PRF4545_P
Stripp Aluminium
profile with



DILC
Indexing plunger with
cam, with cam



ACL-APB
Closing system for
aluminium profile,



PCP
Cell carrier assembly,
Ready assembled

Complementary products



FDSQ
Flexible drive shaft,
Masterflex® Steel,
with PVC casing