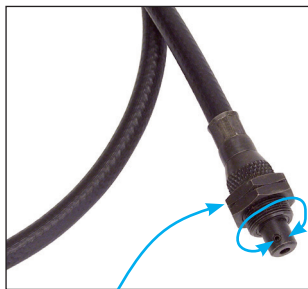
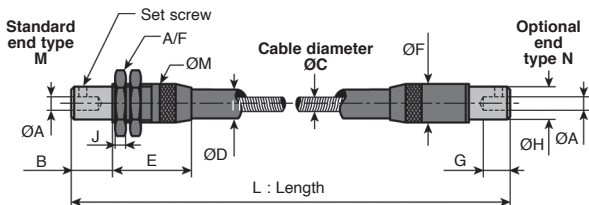




- Suitable for most applications due to the use of self lubricating bronze bearings in the end connectors
- Allows the driving and driven elements to be mounted apart
- Obstacles can be avoided, multiple bends possible
- Position of the driven element is no longer determined by the position of the driving 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

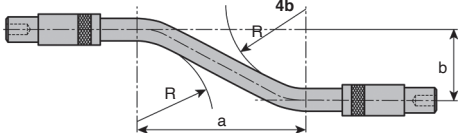
Dimensions in mm

## Info.

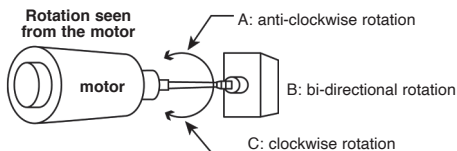
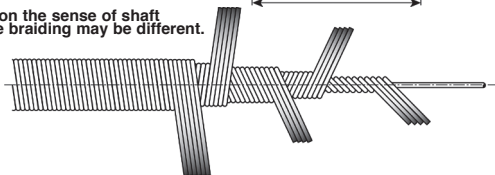
- Replace the "L" in the part number by the length required and add the desired end (R: standard; S: optional)  
E.g. **FDSQ4A-500RR**
- Steel core lubricated with oil
- For continuous use, the shaft should be lubricated every 3 months
- Flexible shaft can be removed by unscrewing the knurled part. Check 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.



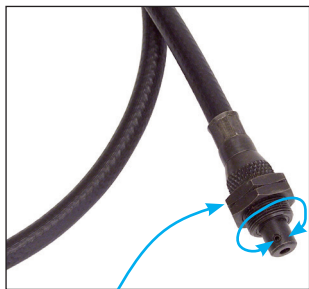
"L" in part number refers to length, see info.

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						

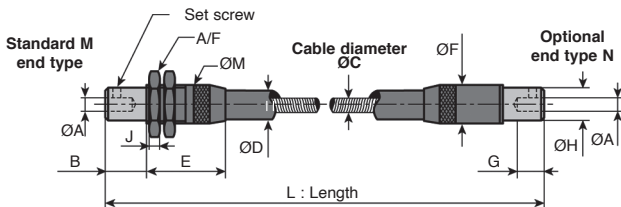
Dimensions in mm



- 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.

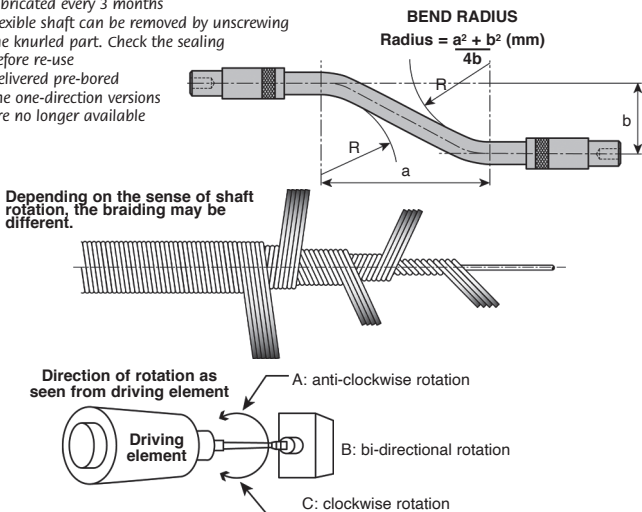
Part number	ØC core	ØM	ØA	B	ØD	E	A/F	ØF	G	ØH	J	Screw
FDS4-L	3,80	M18 x 1,0	4	11,0	10,5	48,0	24	18	8	10,75	4	M3
FDS5-L	4,75	M21 x 1,0	5	14,5	14,0	59,0	27	21	12	14,00	4	M3
FDS6-L	6,35	M27 x 1,0	6	19,5	17,0	66,5	35	27	14	18,00	4	M4
FDS8-L	8,00	M30 x 1,5	8	24,0	17,5	68,5	36	30	17	20,50	4	M4
FDS9-L	9,52	M34 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



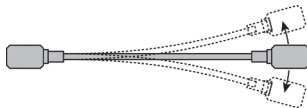
avoids obstacles



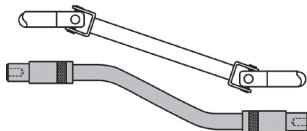
reduces vibrations



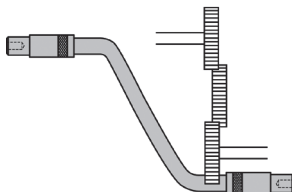
restricted access or control  
at a distance



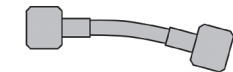
for moving parts



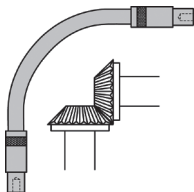
parallel misalignment



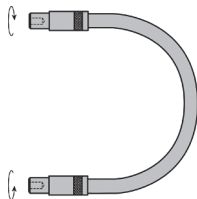
Very large parallel misalignment



angular misalignment



Redirects at 90°



change of direction

## Altri prodotti...



CABtool

Attrezzi per cavi,  
Attrezzi per  
cimpatura



ZBconique

Ingranaggio conico in  
plastica, 1:1



SLHVlock

Bloccaggio a leva, A  
leva orizzontale / base  
verticale



EHD08-9

Riduttore coassiale,  
da 35 a 50 Nm



MEFC

Cuscinetto a collare ,  
Legia di ferro FP20  
autolubrificante  
METAFRAM



SH0

Ingranaggio elicoidale  
ad assi paralleli,  
Acciaio 20NCD2



SHA\_PT

Volantino pieno,  
Poliamide



T5M T10M

Cinghia aperta al  
metro tipo T, T10  
Poliuretano armatura  
in acciaio



GE

Chiusura a leva,  
Miniature



TM\_CTM\_CTF

Accessori per ventosa,  
Insero per ventosa -



TK\_UUOP

Manicotto a sfere  
autoallineante



VTLM

Volantino a 3 lobi,  
Poliamide - Acciaio

## Prodotti correlati



FDSQ

Flexible drive shaft,  
Masterflex® Steel,  
with PVC casing