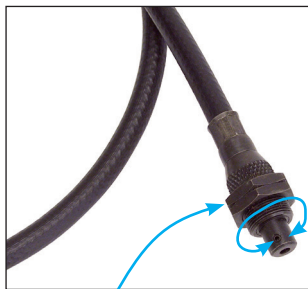
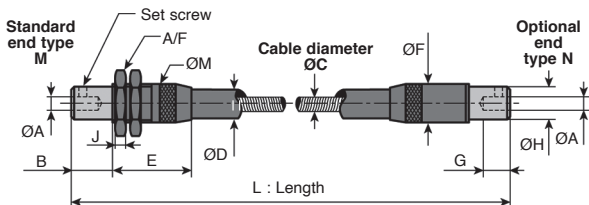




- Suitable for most applications due to the use of self lubricating bronze bearings in the end connectors
- Allows the driving and driven elements to be mounted apart
- Obstacles can be avoided, multiple bends possible
- Position of the driven element is no longer determined by the position of the driving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

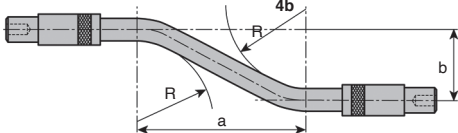
Dimensions in mm

## Info.

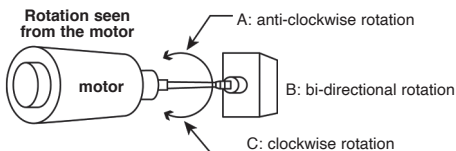
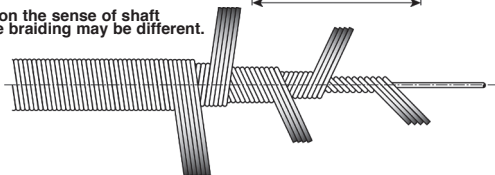
- Replace the "L" in the part number by the length required and add the desired end (R: standard; S: optional)  
E.g. **FDSQ4A-500RR**
- Steel core lubricated with oil
- For continuous use, the shaft should be lubricated every 3 months
- Flexible shaft can be removed by unscrewing the knurled part. Check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



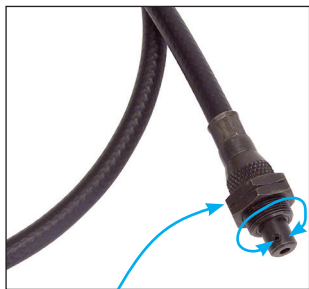
"L" in part number refers to length, see info.

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						

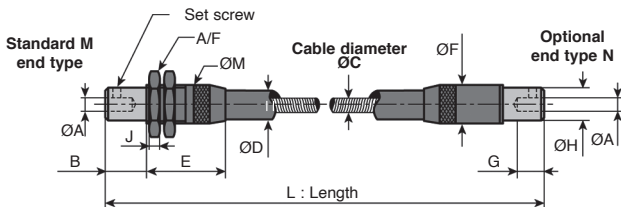
Dimensions in mm



- 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.

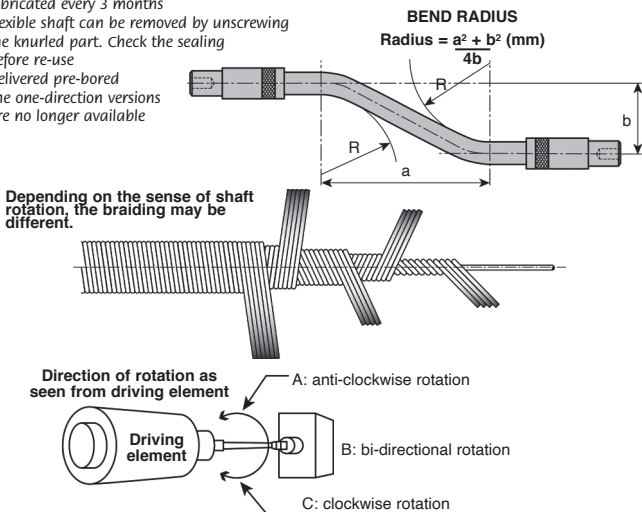
Part number	ØC core	ØM	ØA	B	ØD	E	A/F	ØF	G	ØH	J	Screw
FDS4-L	3,80	M18 x 1,0	4	11,0	10,5	48,0	24	18	8	10,75	4	M3
FDS5-L	4,75	M21 x 1,0	5	14,5	14,0	59,0	27	21	12	14,00	4	M3
FDS6-L	6,35	M27 x 1,0	6	19,5	17,0	66,5	35	27	14	18,00	4	M4
FDS8-L	8,00	M30 x 1,5	8	24,0	17,5	68,5	36	30	17	20,50	4	M4
FDS9-L	9,52	M34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



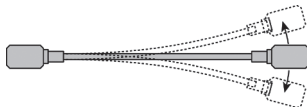
avoids obstacles



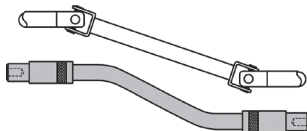
reduces vibrations



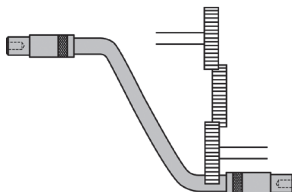
restricted access or control  
at a distance



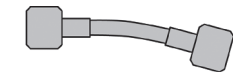
for moving parts



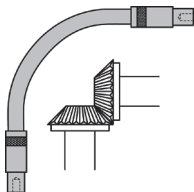
parallel misalignment



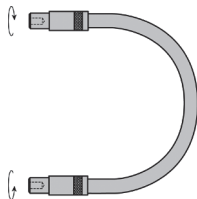
Very large parallel misalignment



angular misalignment

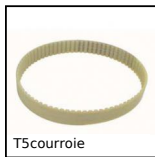


Redirects at 90°



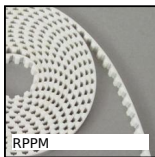
change of direction

## Our other products



T5courroie

T type timing belt, T5  
Steel cored  
polyurethane



RPPM

RPP type belt per  
metre, RPP8 Steel  
cored polyurethane



TIF

Threaded rod -  
DIN975, Stainless  
steel A2



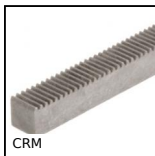
PPC<sub>SS</sub>

Pad eye on mounting  
plate squarred,  
Stainless steel



HCV

V- rail guidance  
Simple Select®  
system, on rail



CRM

Moulded nylon rack,  
Nylon



LINK64

Synchronous AC  
Motor and- gearbox ,  
from 1.3 to 6Nm



PRF\_ECL

Nut for aluminium  
profile, Steel square  
nut with tab



SH0

Parallel axis helical  
gear, Steel 20NCD2



PRF4590

Standard aluminium  
profile, 45 x 90 mm



EBC

Cap nut Hygienic  
Design®, Compact



BOX-TOR-INCH

Box set of Nitrile O-  
rings in inch NBR90Sh  
A, For fasteners and  
fitt...

## Complementary products



FDSQ

Flexible drive shaft,  
Masterflex® Steel,  
with PVC casing