



Remote controls with flexible cables

TECHNICAL CATALOGUE



Remote controls

Additional information

This catalogue shows the product in the most standard configurations.
Please contact our Sales Dpt. for more detailed information or special requests.

WARNING!

All specifications of this catalogue refer to the standard product at this date.
Walvoil, oriented to a continuous improvement, reserves the right to
discontinue, modify or revise the specifications, without notice.

**WALVOIL IS NOT RESPONSIBLE FOR ANY DAMAGE CAUSED BY AN
INCORRECT USE OF THE PRODUCT.**

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SCF031/SCF034/SCF032 series page 11

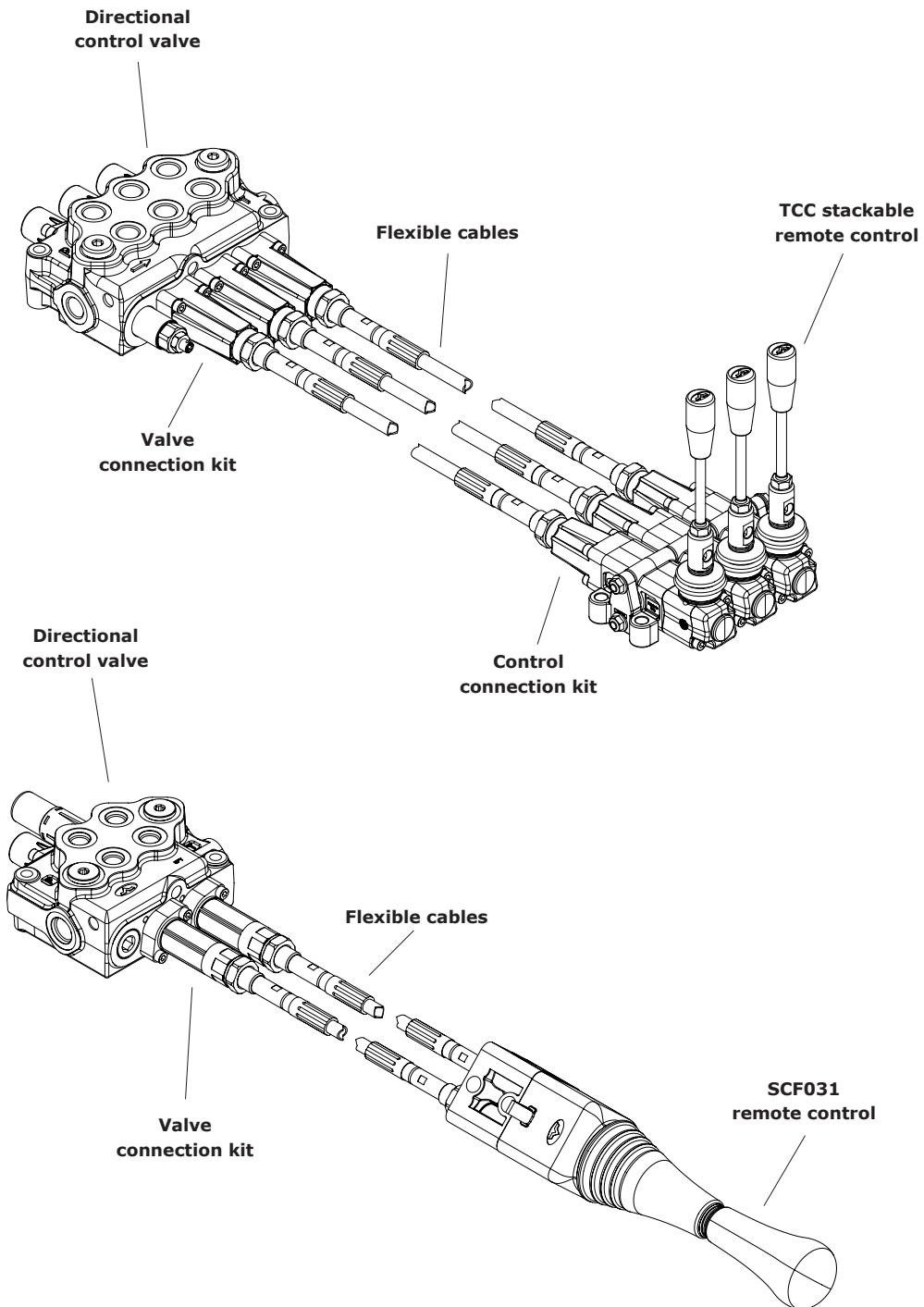
Flexible cables page 19

Remote controls

System description

These are remote controls with flexible cables.

They allow to install the directional control valve close to the hydraulic circuit components and to install the remote control in an ergonomic position.





TCC series

Remote controls with flexible cables

- Up to 10 sections
- Low actioning efforts
- Detents, safety lever, several types of knob available
- TCC5 recommended for SD4, SD5, SD6, SDM080 and DF5 valves;
TCC10 recommended for other valves

Working conditions

Max. load: in traction
in compression

1450 N - 340 lbf
880 N - 200 lbf

Minimum recommended bend radius

R = 150 mm - 5.9 in

Working temperature

from -40 to 80 °C - from -40°F to 176°F

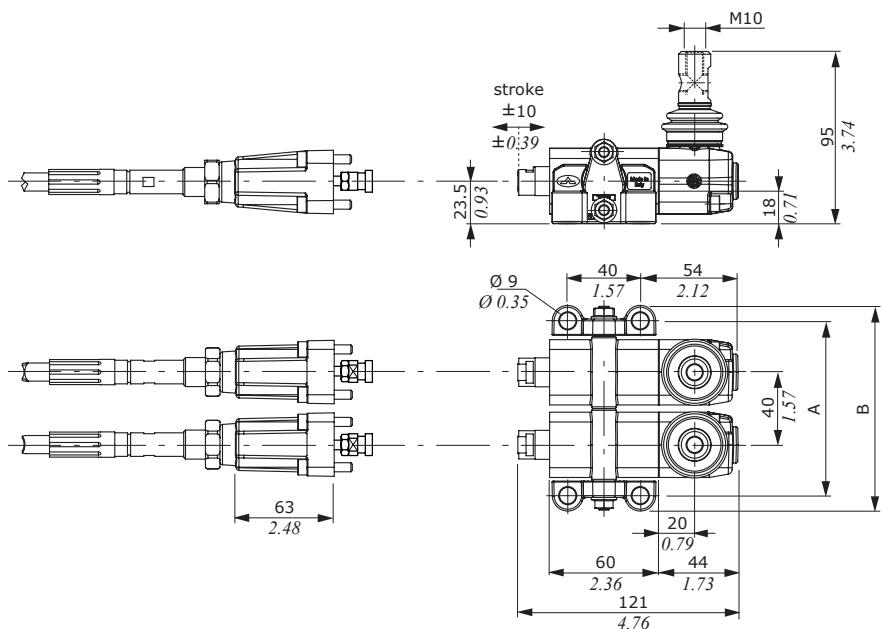
Maximum recommended length

4000 mm - 157.48 in

NOTE: the features are referred to remote controls with flexible cables

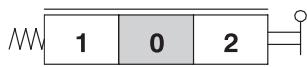
TCC5 remote control

Dimensions



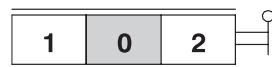
M type

Spring return in neutral position

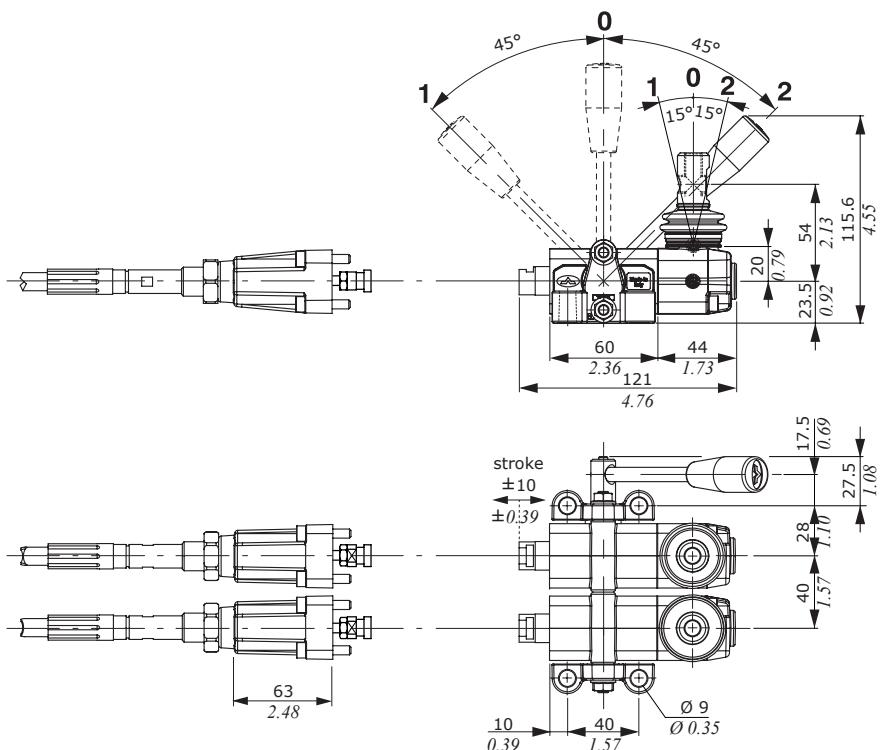


T type

Without spring return for detented controls on directional valve and control without neutral position

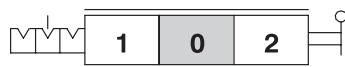


U type with movement selector



U type

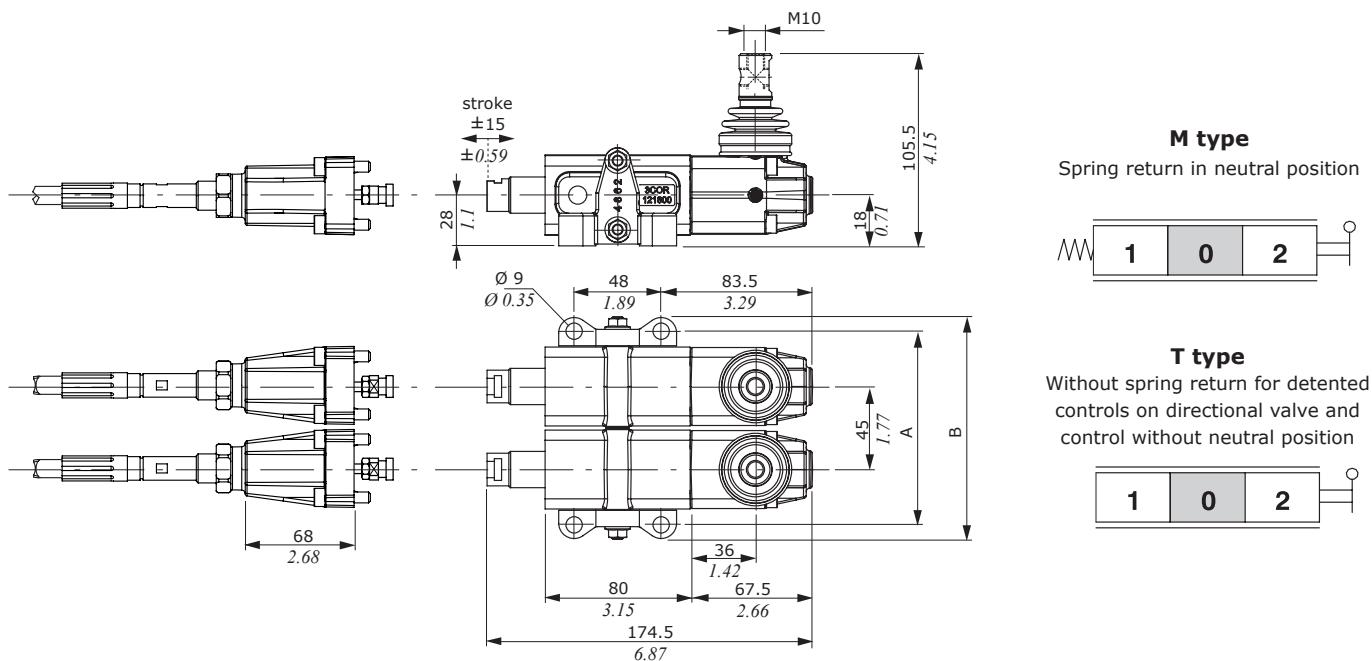
With 3 detented positions (to be used only as first or last sections)



TYPE	TCC5/1		TCC5/2		TCC5/3		TCC5/4		TCC5/5		TCC5/6		TCC5/7	
	mm	in	mm	in										
A	56	2.20	96	3.78	136	5.35	176	6.93	216	8.50	256	10.08	296	11.65
B	73	2.87	113	4.45	153	6.02	193	7.6	233	9.17	273	10.74	313	12.32

TCC10 remote control

Dimensions



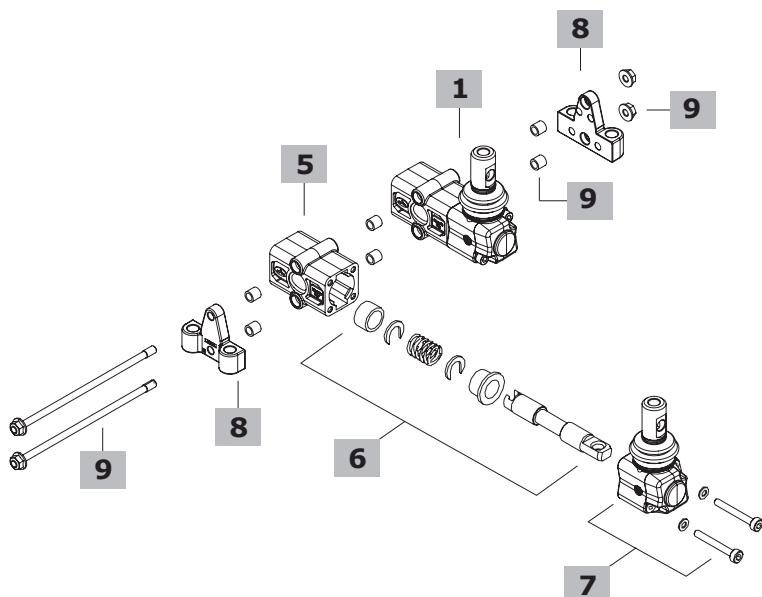
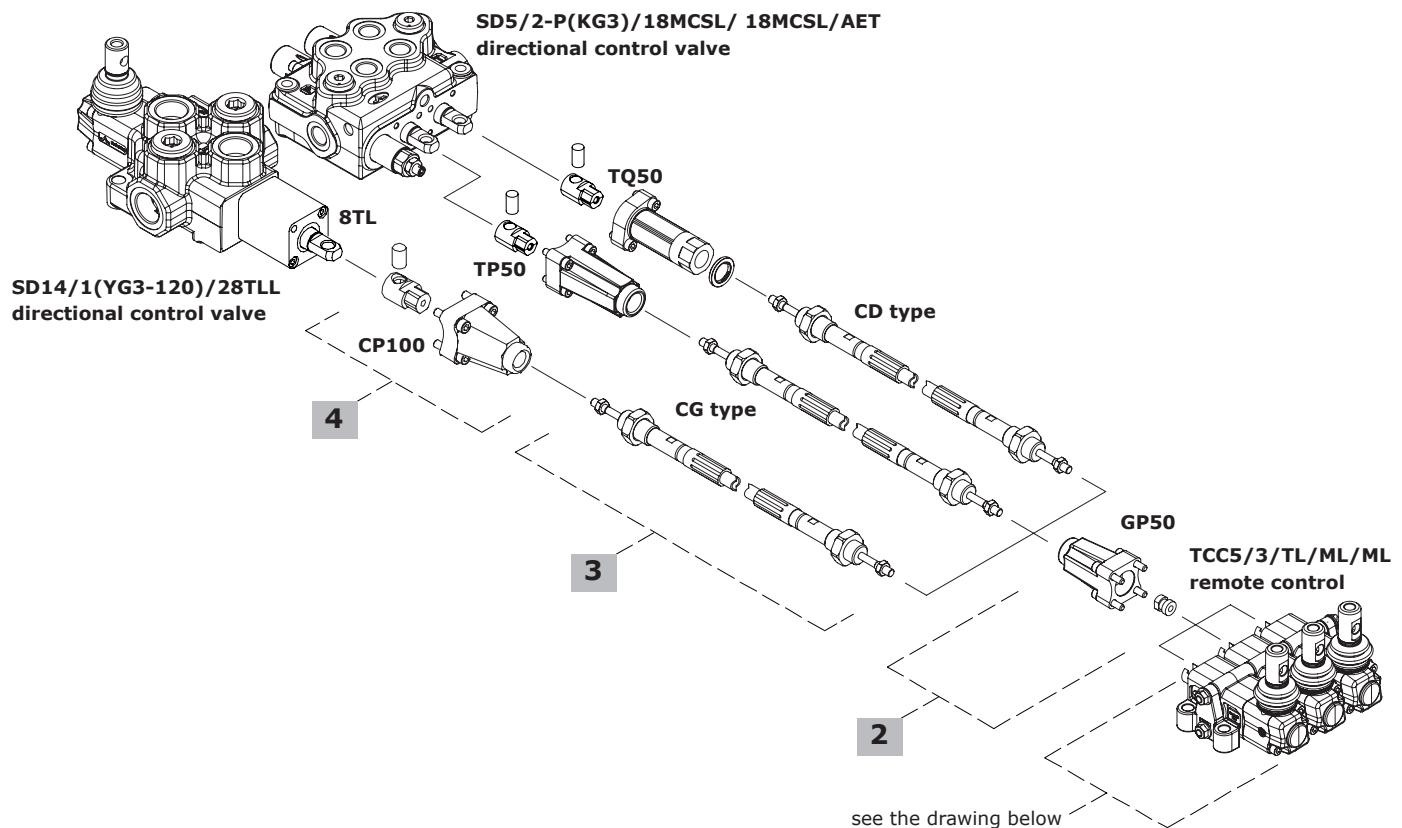
TYPE	TCC10/1		TCC10/2		TCC10/3		TCC10/4		TCC10/5		TCC10/6	
	mm	in	mm	in								
A	61	2.4	106	4.17	151	5.94	196	7.72	241	9.49	286	11.26
B	78	3.07	123	4.84	168	6.61	213	8.39	258	10.16	303	11.93

Connecting example

Description example



TCC5/3/ TL / ML / ML + GP50X3 + CG2000X2 + CD2000 + CP100 + TP50 + TQ50 + SD14/1(YG3-120)/28TLL + SD5/2-P(KG3-120)/18MCSL/18MCSL/AET





SCF031/SCF034/SCF032 series

Flexible cable remote control joystick

- Mechanical safety lock
- Ergonomic handles with push-buttons available
- Single or dual spool operation for a 2 section directional valve
- High efficiency
- Body, rubber boot and knob made in self-extinguishing and recyclable plastic polymer

Working conditions

Max. load: in traction in compression	1400 N - 315 lbf 900 N - 202 lbf
Minimum recommended bend radius	R = 150 mm - 5.9 in
Working temperature	from -20 to 80 °C - from -4°F to 176°F
Max. recommended length	4000 mm - 157.48 in
Average efficiency	70%

NOTE: the features are referred to remote control with flexible cables

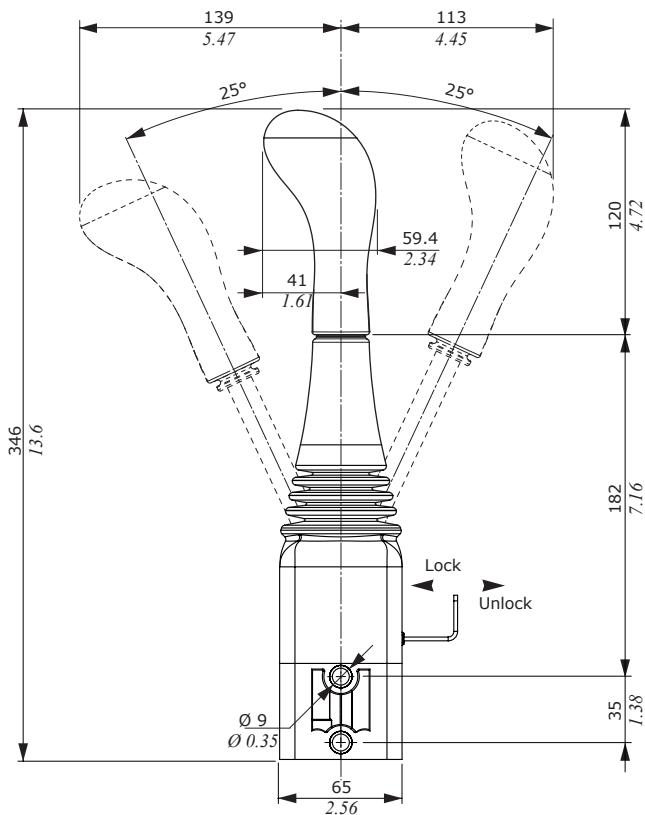
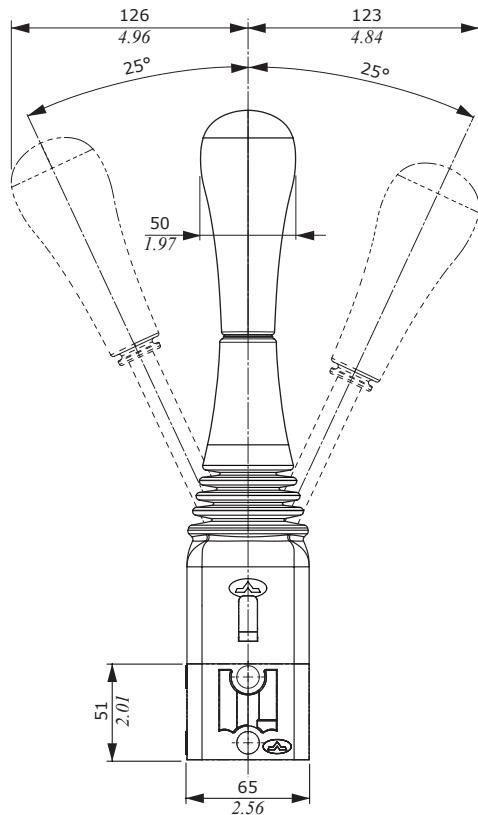
Features

Push-buttons

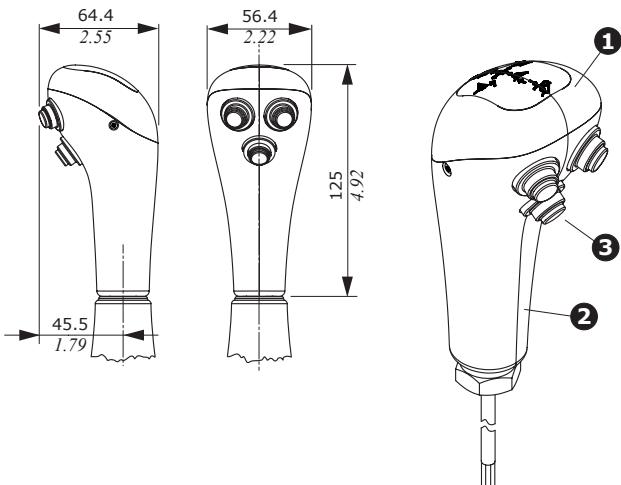
Current/voltage	6 A / 125 VAC 3 A / 250 VAC 3 A / 30 VDC
Mechanical life	10 ⁵ nr of operation
Electric life	25x10 ³ nr of operation
Operating force	9.3 N - 2.09 lbf
Weather protection	IP 64

Dimensions and handles

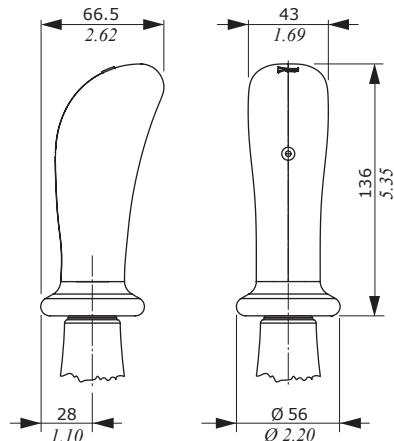
With FW type handle



With FWV Series handle



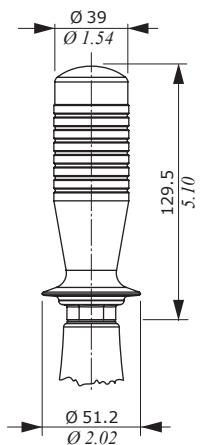
With V Series handle



- 1) Upper half-shell**
2) Bottom half-shell
3) K type push-button

Dimensions and handles

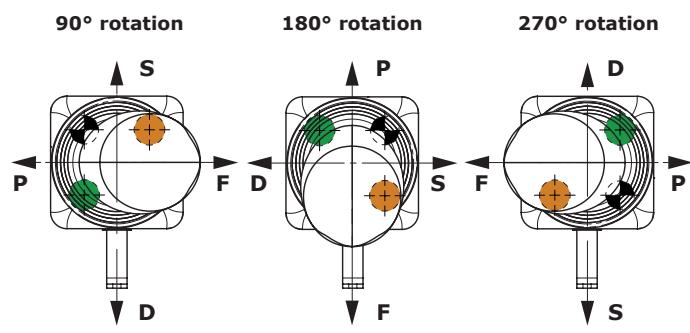
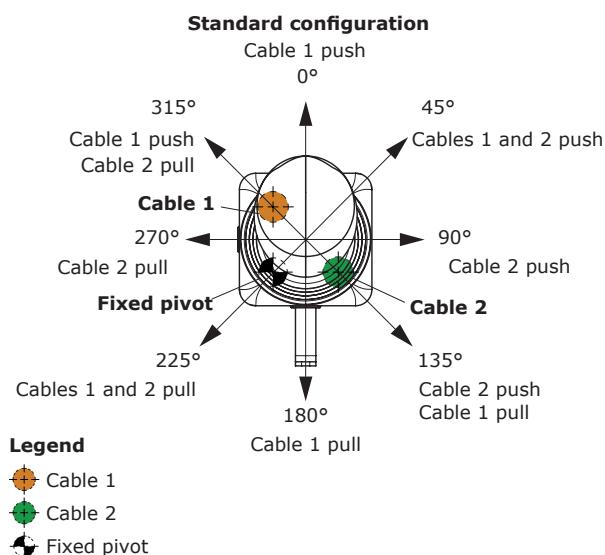
With 10 Series handle



Operations and options

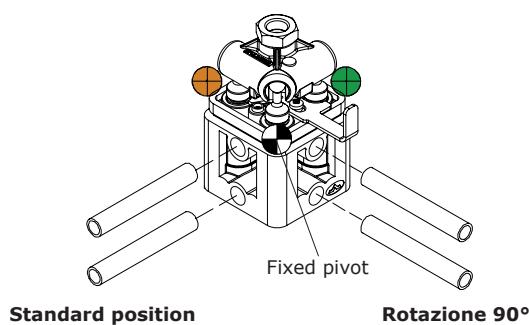
Operation and handle position

Handle can be mounted with 90° rotation step; the table below shows cables operation with handle in non-standard positions.



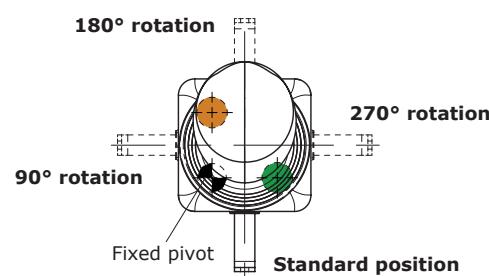
Body mounting

The position of the assembly bushing can be rotated 90° in order to allow the selection of the pilot valve fixing side.



Lock position

The mechanical lock can be mounted with 90° rotation step; its position refers to pivot's and cables' one.



Description example and ordering codes

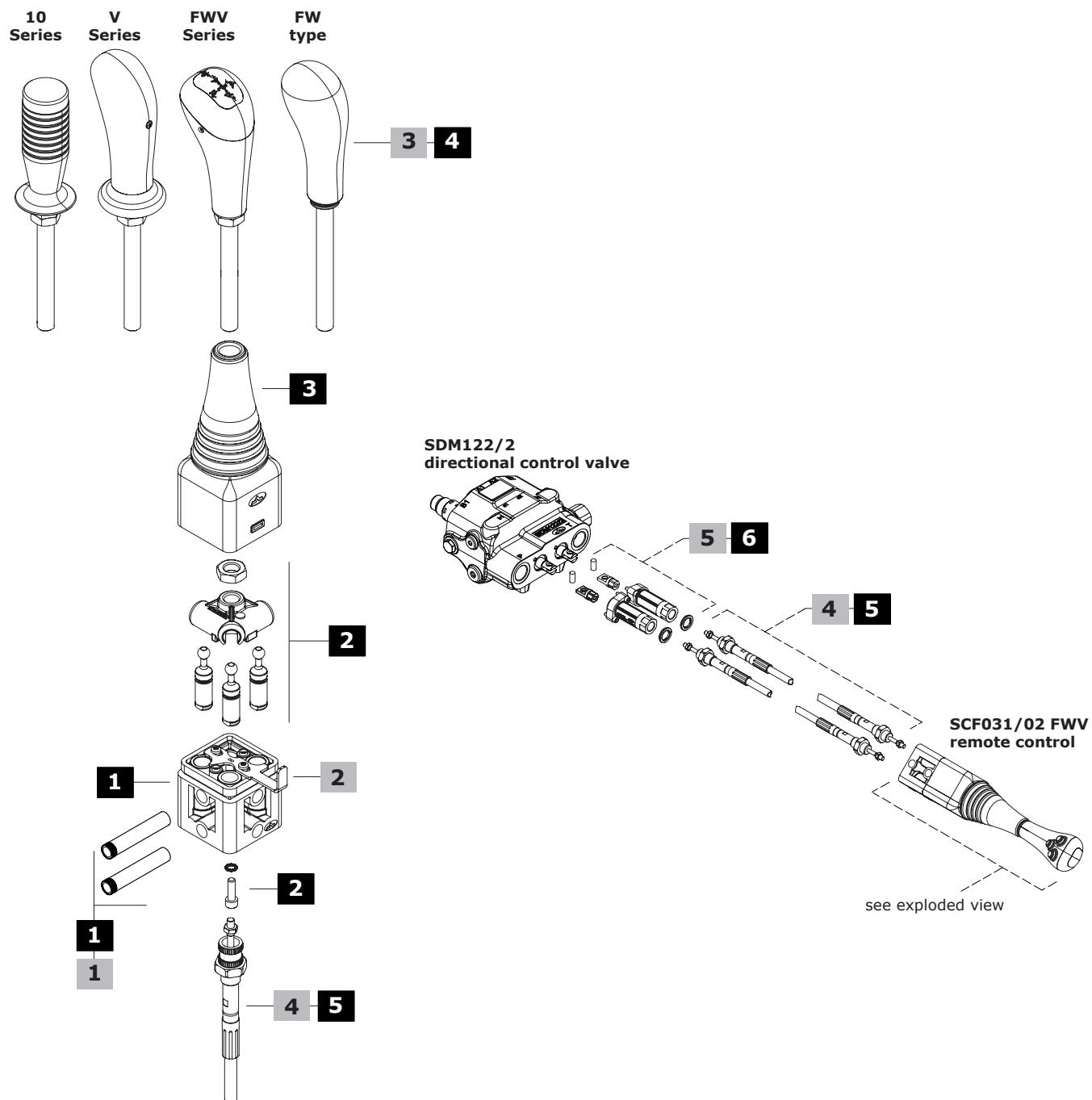
Description example

SCF031 / 0 2 FWV-B-1KN5055-2KN5055-3KN5055+CD1500x2+SDM122/2-P(UD-180)/1[S]13SL/1[S]8MASL/AET



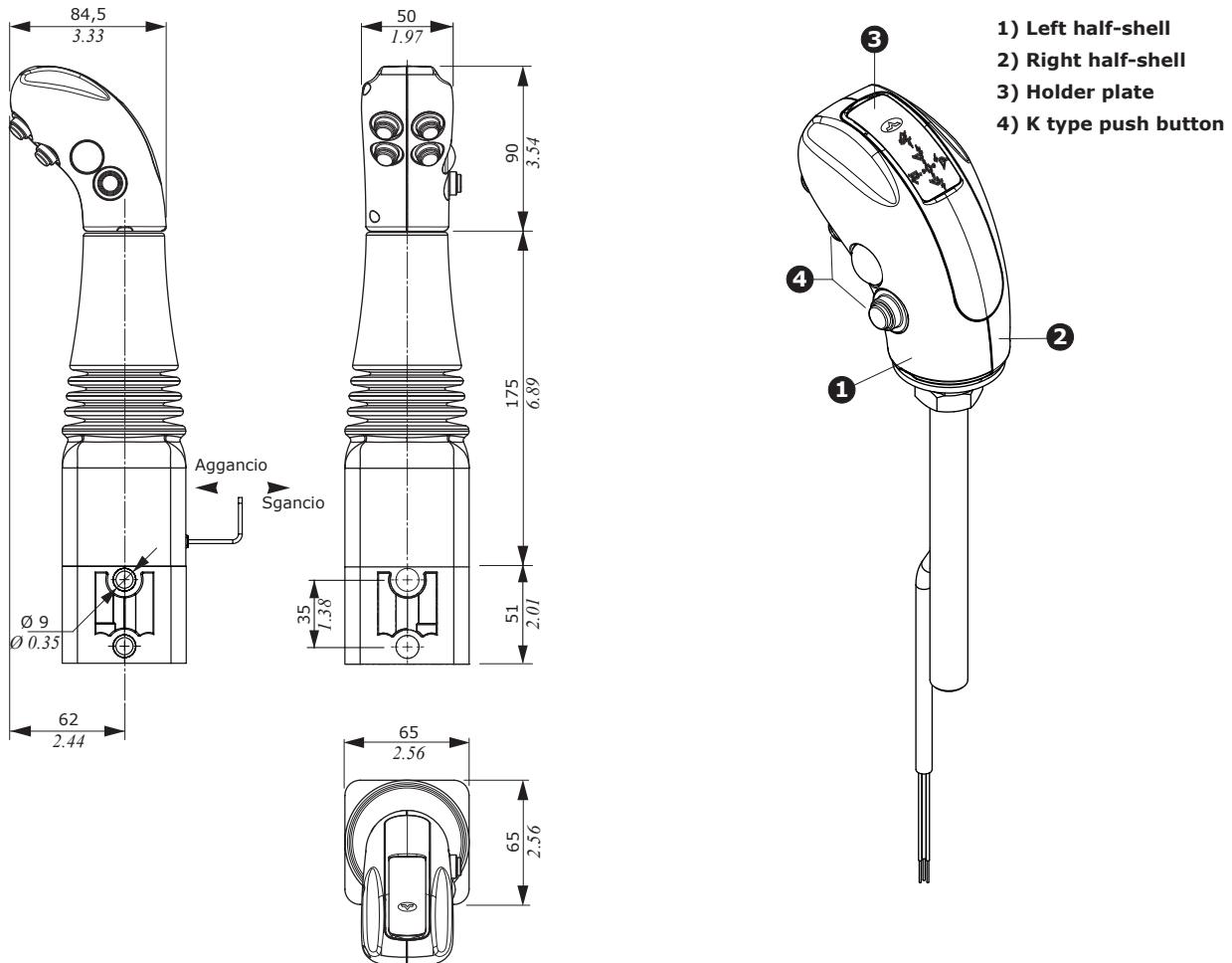
Working section parts ordering codes

SCF031/02 FWV-B-1KN5055-2KN5055-3KN5055 + CD1500x2 + TQ81x2 + SDM122/2-P(UD-180)/1[S]13SL/1[S]8MASL/AET



Dimensions and handles

Configuration with multi-micro ergonomic AMH type handle and dedicated bellow.



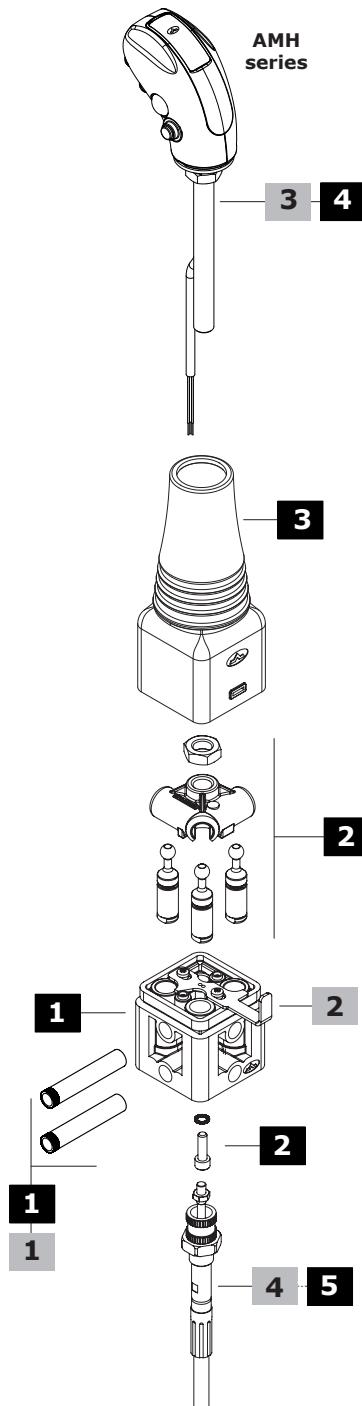
Description example and ordering codes

Description example

SCF034 / 0 2 AMHK0500A4-4(TAP)-5N5055-6N5055-7N5055-8N5055-9N5055-(E1) + CD1500x2
 1 2 3 4

Working section parts ordering codes

SCF034/02 AMHK0500A4-4(TAP)-5N5055-6N5055-7N5055-8N5055-9N5055-(E1) + CD1500x2
 1 4 5



Description composition

1 Body mounting

See page 15

2 Mechanical lock

See page 15

3 Handles

For description see #4 of "Ordering codes".

4 Flexible cable

TYPE DESCRIPTION

CD1500 CD cable with lenght 1500 mm - 59 in

Note: for cables and connection kit see pages 20 and 21

Ordering codes

1 Body kit

See page 15

2 Control kit

See page 15

3 Bellows

TYPE	CODE	DESCRIPTION
SCF034	3SOF204176	Bellows

4 Handles

Available AMH handles with custom length. Example:

AMH series handle

TYPE: **AMHK0500A4-4(TAP)-5N5055-6N5055-7N5055-8N5055-9N5055-(E1)**

CODE: 2IM300008 DESCRIPTION: With 4 front push-button and 1 side push-button

TYPE: **AMHM0300C4-1RB1150-6VB1150-8VB1150-(E3)**

CODE: 2IM3000018 DESCRIPTION: With 2 front push-button and 1 side push-button and symbols according to UNI EN 12525

Note: for further configuration contact Sales Department

5 Flexible cable

For cables and connection kit see pages 20 and 21.

Description example and ordering codes

SCF032 is the remote control for special configuration, for example particular length or formed rod and handles not included. Please contact our Sales Department for further information.

Description example with FW handle

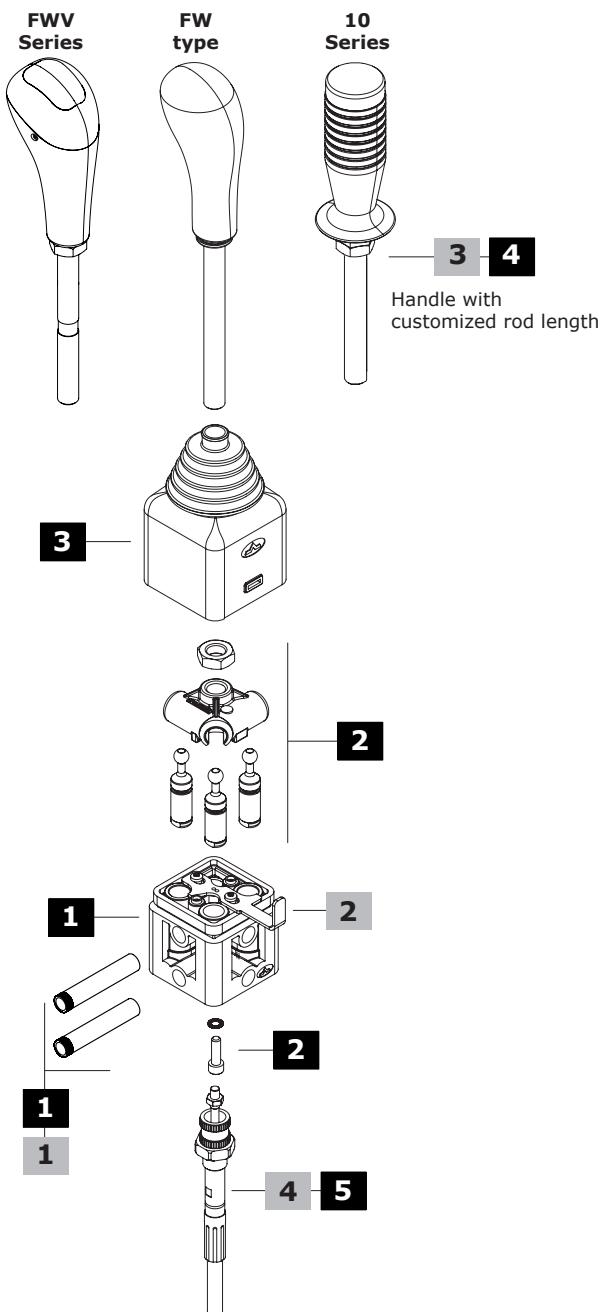
SCF032 / 0 2 FW + CD1500x2

1 2 FW + CD1500x2

Working section parts ordering codes

SCF032/02 FW + CD1500x2

1 4 5



Description composition

1 Body mounting

See page 15

2 Mechanical lock

See page 15

3 Handles

For description see #4 of "Ordering codes".

4 Flexible cable

TYPE	DESCRIPTION
CD1500	CD cable with lenght 1500 mm - 59 in

Note: for cables and connection kit see pages 20 and 21.

Ordering codes

1 Body kit

See page 15

2 Control kit

See page 15

3 Bellow

TYPE	CODE	DESCRIPTION
SCF032	3SOF204111	Short bellows

4 Handles

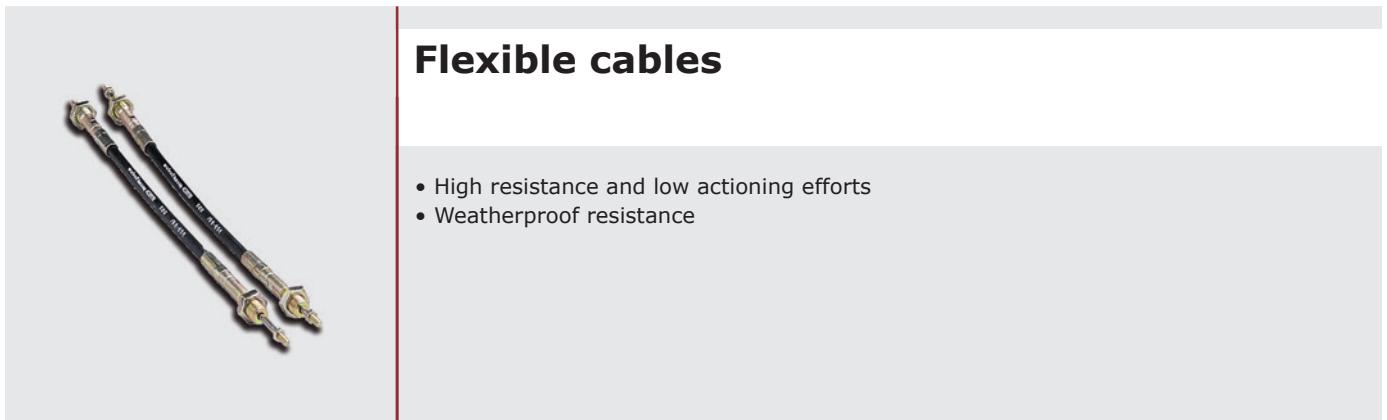
Available handles with custom length. Example:

TYPE	CODE	DESCRIPTION
S	-	Without handle, without handlelever
Standard handle		
FW	XAST481400	Standard without push-button, H 260 mm - 10.24 in
FWV-B	XAST482301	Standard up to 3 push-buttons and symbols according to UNI EN 12525, H 265.6 mm - 10.46 in
10 series handle		
X	XAST281414	Push button with spring return, H 252 mm - 9.92 in
Z	XAST281415	Push-button with detent, H 254 mm - 10 in
Y	XAST281421	3 positions spring return rocker switch, H 252 mm - 9.92 in

Note: for further configuration contact Sales Department

5 Flexible cable

For cables and connection kit see pages 20 and 21.



Flexible cables

- High resistance and low actioning efforts
- Weatherproof resistance

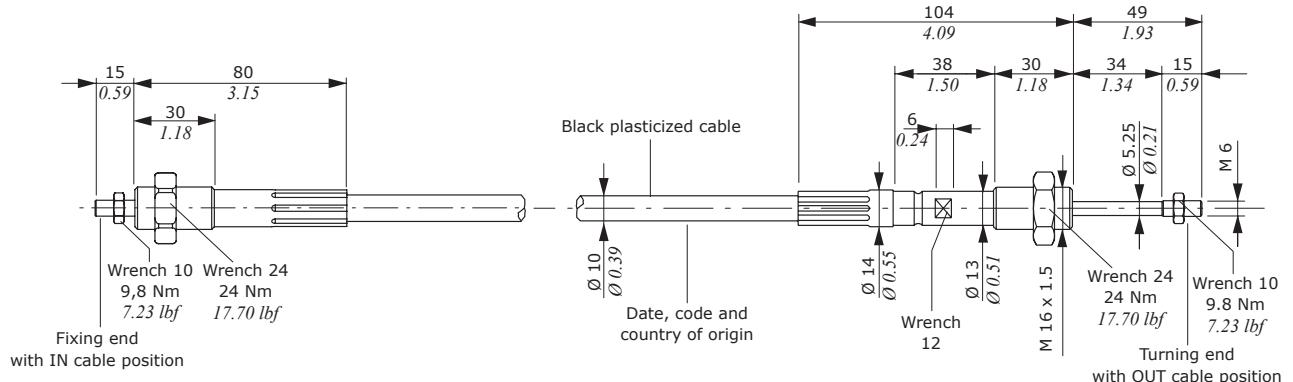
Working conditions

Max. load: in traction in compression	1450 N - 340 lbf 880 N - 198 lbf
Minimum recommended bend radius	R = 150 mm - 5.9 in
Working temperature	from -40 to 80 °C - from -40°F to 176°F
Maximum recommended length	5000 mm - 157.48 in

Dimensions

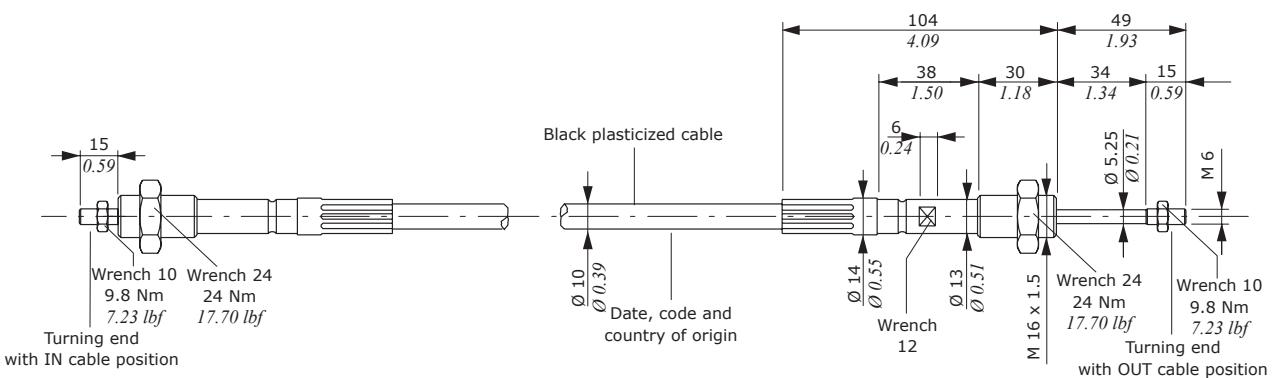
CD cable

Flexible polyurethane cable with 5 wires: 0.75 mm² - 0.0012 in² (Ø external 5.2 mm - 0.20 in, Ø wire 1.55 mm - 0.06 in) with one fixing end and one turning end.



CG cable

Flexible polyurethane cable with 5 wires: 0.75 mm² - 0.0012 in² (Ø external 5.2 mm - 0.20 in, Ø wire 1.55 mm - 0.06 in) with both turning ends.



Ordering codes for flexible cables

Connecting scheme

Flexible cables and connecting kit at both ends are used to join TCC or SCF control group to the directional valve.

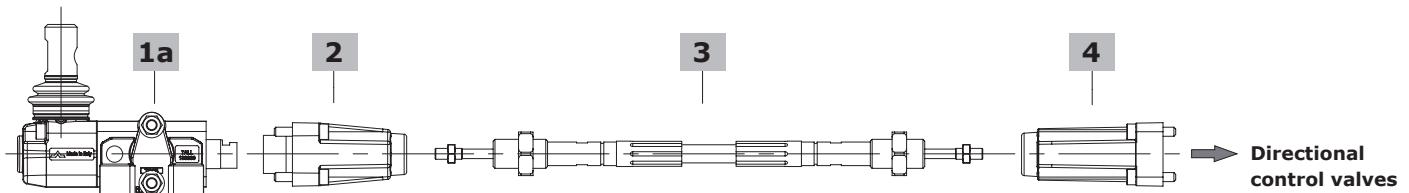
On the TCC series remote control there is always a GP kit; on the valve, the kit choice depends on the cable. The TP kit is used with CG cable with turning ends. The CP kit must be used instead of TP one when TL control is mounted on the valve, with the lever on the opposite side.

On the SCF031/32 remote control the TQ kit is assembled on the spool end side and it allows the connection of the cable to the directional valve. It's waterproof and it permits freedom of movement to fixed end cables.

TCC5/1/ML + GP50 + CG1000 + TP50

1a 2 3 4

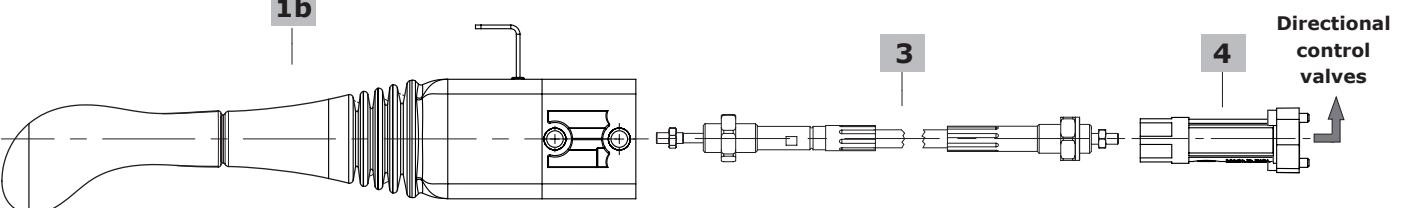
TCC5/1/ML + GP50 + CD1000 + TQ50



SCF031/02FW + CD1500 x2 + TQ70

1b

1b



Ordering codes for flexible cables and connection kit

1a TCC remote control

page 5-9

(continue)

1b SCF031 remote control

page 11-16

2 Control connection kit

TYPE	CODE	DESCRIPTION
GP50	5TEL005005	Kit for TCC5
GP100	5TEL010005	Kit for TCC10

3 Flexible cables

TYPE	CODE	DESCRIPTION
------	------	-------------

CD type: with one fixing end and one turning end

CD1000	4CAV601000	Length 1000 mm - 39.37 in
CD1250	4CAV601250	Length 1250 mm - 49.21 in
CD1500	4CAV601500	Length 1500 mm - 59.05 in
CD1750	4CAV601750	Length 1750 mm - 68.90 in
CD2000	4CAV602000	Length 2000 mm - 78.74 in
CD2500	4CAV602500	Length 2500 mm - 98.42 in
CD3000	4CAV603000	Length 3000 mm - 118.11 in
CD3500	4CAV603500	Length 3500 mm - 137.79 in

3 Flexible cables

CG type: with both turning ends

CG1000	4CAV701000	Length 1000 mm - 39.37 in
CG1250	4CAV701250	Length 1250 mm - 49.21 in
CG1500	4CAV701500	Length 1500 mm - 59.05 in
CG1750	4CAV701750	Length 1750 mm - 68.90 in
CG2000	4CAV702000	Length 2000 mm - 78.74 in
CG2250	4CAV702250	Length 2250 mm - 88.58 in
CG2500	4CAV702500	Length 2500 mm - 98.42 in
CG3000	4CAV703000	Length 3000 mm - 118.11 in
CG3500	4CAV703500	Length 3500 mm - 137.79 in
CG4000	4CAV704000	Length 4000 mm - 157.48 in
CG4500	4CAV704500	Length 4500 mm - 177.16 in
CG5000	4CAV705000	Length 5000 mm - 196.85 in

4 Valve connection kit

See page 19

Notes _____

Notes



Innovation · Continuity · Integration
It is Power

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FLUID POWER E-MOTION

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 **hydro control**

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SISTEMI INTEGRATI

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