

MFG Multifunction Grips



The Multifunction grips (MFGs) from DeltaTech Controls provide the reliability required in demanding environmental conditions such as heavy duty industrial applications and off-road. The high mechanical strength of the shaft and the unique look and feel make these multifunction grips ideal for rigorous use in rugged, harsh environments. Multifunction grips are designed for use with DeltaTech Controls' AJ3/AJ4 Joysticks but can also be used together with other joysticks. For more information on the AJ3 and AJ4 please consult the AJ3 and AJ4 datasheets.

Main Features

- Ergonomic shape and controls position
- Variable functions and mountings
- Grips mountable for left and right handed usage
- Precise tactile feedback of switches
- Adjustable handrest and soft-touch overmolding (S3 grip)
- Company own K12 switch technology for high reliability



Ball - S



Ball - L



S1



S2



S3



SK



S4



S7

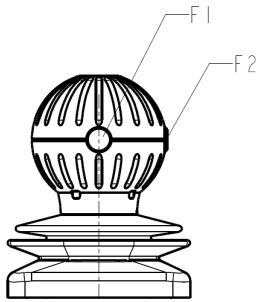
MFG Multifunction Grips

Grip – Order Codes

Standard MFG's for the AJ3 Joystick.



MFG Ball



Ordering code	1	2	3	4	5
Example	Ball	-L	TAJ	CAJ	1F-1
1 Type	Ball = MFG Ball				
2 Ball size	-L = Large -S = Small				
3 Tube	TAJ = tube for AJ3 TC... = customized tube***				
4 Cable	CAJ = cable for AJ3 CS = standard cable CC... = customized cable***				
5 Functions	0F = no switch 1F-... = one switch* 2F-... = two switches**				

*** Details available on request.

For more technical data and drawings see overleaf.

All switches are well known high reliable **K12 switches**.

- up to 2 single switches
- rated for protection class IP65

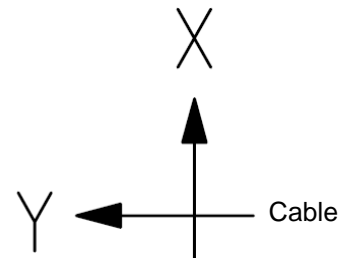
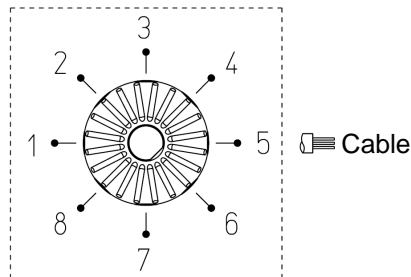
Standard cable (CS):

Typ: LIFY 0,25mm²

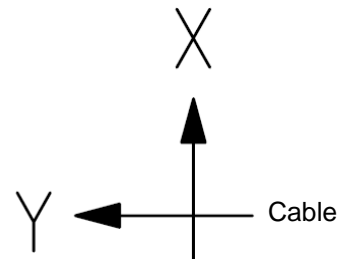
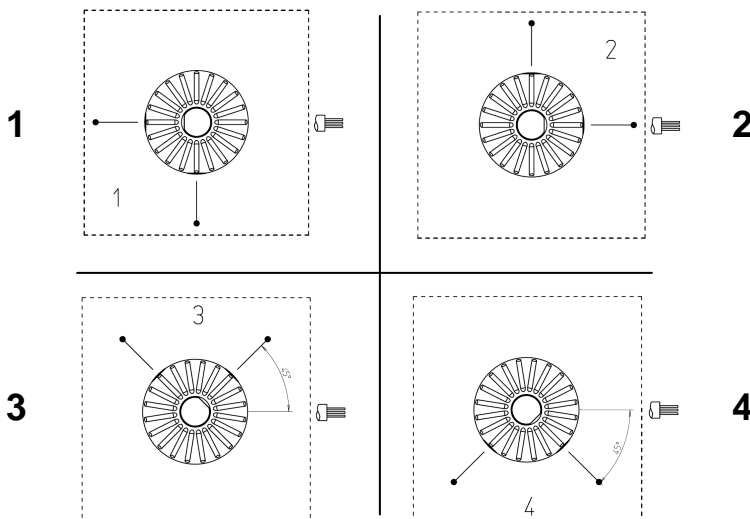
Length: 1.200 mm (from end of tube)

* Position of single switch (1F) – topview on ball grip:

Small Ball grip available with switch in position 1, 4, 5 or 8 only.



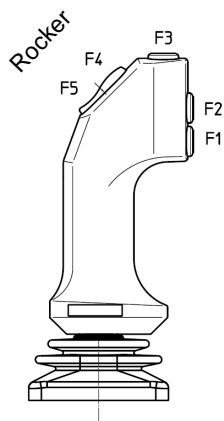
** Position of two switches (2F, large Ball only) – topview on ball grip:



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MFG S1



All switches are well known high reliable **K12 switches**.

Ordering code		1	2	3	4
Example		S1	TS	CS	5F
1 Type	S1 = MFG S1	→			
2 Tube	TS = standard tube TAJ = tube for AJ3 TC... = customized tube*		→		
3 Cable	CAJ = cable for AJ3 CS = standard cable CC... = customized cable*			→	
4 Functions	5F = 3 switches & 1 switch rocker				→

*Details available on request.

For more technical data and drawings see overleaf.

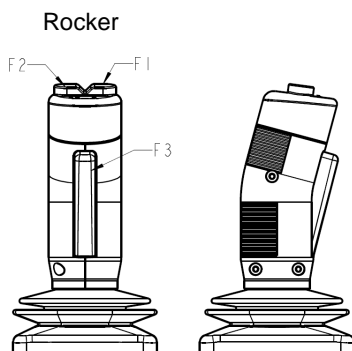
- 3 single switches (F1, F2, F3)
- 1 momentary switch rocker (F4/F5)
- rated for protection class IP65

Standard cable (CS):

Typ: LIFY 0,35mm²

Length: 1.000 mm (from end of tube)

MFG S2



All switches are well known high reliable **K12 switches**.

Ordering code		1	2	3	4
Example		S2	TS	CS	3F
1 Type	S2 = MFG S2	→			
2 Tube	TS = standard tube TAJ = tube for AJ3 TC... = customized tube*		→		
3 Cable	CAJ = cable for AJ3 CS = standard cable CC... = customized cable*			→	
4 Functions	1F = enabling switch 2F = 1 rocker 3F = enabling switch & 1 rocker				→

*Details available on request.

For more technical data and drawings see overleaf.

- 1 enabling switch (F3)
- 1 momentary switch rocker (soft-touch) (F1/F2)
- optional hard plastic cap for rocker protection
- rated for protection class IP65

Standard cable (CS):

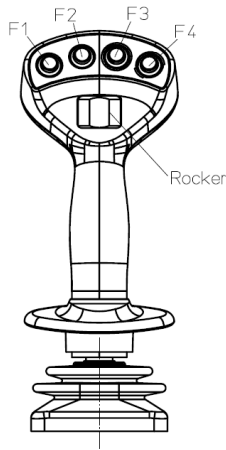
Typ: LIFY 0,25mm²

Length: 190 mm (from end of tube)

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MFG S3



- Grip with soft-touch overmolded switch block
- Optional front rocker – analog or switch rocker (AR3/SR3) horizontal or vertical mountable
- Optional rear rocker – analog or switch rocker (AR3/SR3) vertical mountable
- 4 momentary switches (optional with backlighting)
- optional adjustable handrest for different handsizes
- Rated for protection class IP65

Rocker actuators available:



shape 1



shape 2



shape 5

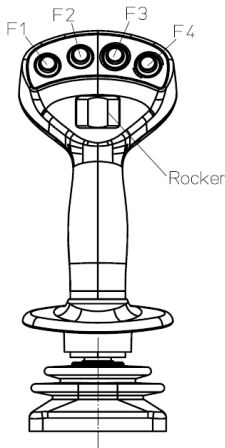
Example



MFG Multifunction Grips



MFG S3



Ordering code		1	2	3	4	5	6
	Example	S3	AR3H-5	SR3-1	TAJ-B	CS	4F
1 Type	S3 = MFG S3						
2 Front Rocker	AR3 = Analog Rocker 3 SR3 = Switch Rocker 3 N = None						
Install position	H = horizontal V = vertical						
Actuator Shape	-1 = actuator shape 1 -2 = actuator shape 2 -5 = actuator shape 5						
3 Rear Rocker	AR3 = Analog Rocker 3 SR3 = Switch Rocker 3 N = None						
alw ays vertical							
Actuator Shape	-1 = actuator shape 1 -2 = actuator shape 2 -5 = actuator shape 5						
4 Tube*	TS1 = standard tube 1 TS2 = standard tube 2 TAJ = tube for AJ3 TC... = customized tube***						
Cable exit*	-B = bottom exit -S = side exit						
5 Cable	CAJ = cable for AJ3 CS = standard cable CC... = customized cable***						
6 Front Switches**	N = no switch 4F = 4 switches (F1- F4) C... = customized***						

*Drawings see overleaf. **Different switch versions available on request.

***Details available on request. For more technical data and drawings see overleaf.

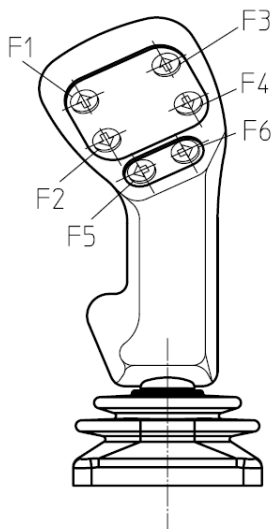
Standard cable (CS):

Typ: LIFY 0,25mm²

Length: 1.200 mm (from end of tube)

All switches are well known high reliable **K12 switches**.

MFG SK



Ordering code		1	2	3	4	5
	Example	SK	TS	CS	9F	N
1 Type	SK = MFG SK					
2 Tube	TS = standard tube TAJ = tube for AJ3 TC... = customized tube*					
3 Cable	CAJ = cable for AJ3 CS = standard cable CC... = customized cable*					
4 Functions**	6F = 6 switches 9F = 9 switches 11F = 11 switches					
4 Decals	N = without decals (black) A = standard decals (arrows)** C = customized decals					

*Details available on request. **see drawing overleaf

For more technical data and drawings see overleaf.

- rated for protection class IP65

Standard cable (CS):

Typ: LIFY 0,34mm²

Length: 1.140 mm (from end of tube)

All switches are well known high reliable **K12 switches**.

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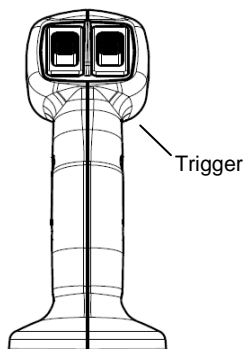


MFG S4

Ordering code		1	2	3	4	5	6	7	8
	Example	S4	TAJ	CS	CS	AR4	AR4	V	T
1 Type	S4 = MFG S4								
2 Tube	TAJ = tube for AJ4 TC... = customized tube*								
3 Cable	CAJ = cable for AJ4 CS = standard cable CC... = customized cable*								
4 Connector	CS = standard connector CC... = customized connector*								
5 Function A (left / top)	N = no switch 1F = 1 Pushbutton switch 2F = 2 Pushbutton switches AR4 = Analog Rocker 4 FNR = Forward-Neutral-Reverse								
6 Function B (right / bottom)	N = no switch 1F = 1 Pushbutton switch 2F = 2 Pushbutton switches AR4 = Analog Rocker 4 FNR = Forward-Neutral-Reverse								
7 Install position	H = horizontal V = vertikal								
8 Trigger	N = None T = Trigger								

* Details available on request.

For more technical data and drawings see overleaf.

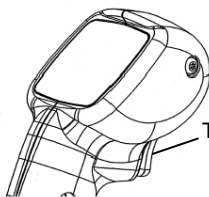


- Rated for protection class IP67

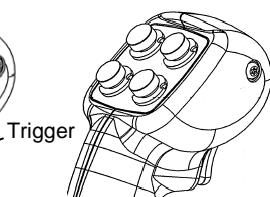
Standard cable (CS):

Typ: AWG 20
Length: 700 mm (from end of tube) inclusive connector
Connector: Deutsch DT04 - I2P

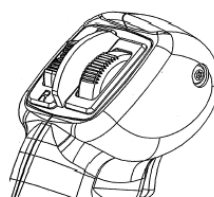
Available variantes



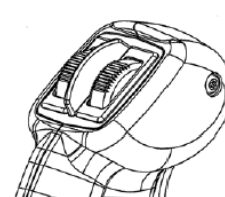
Blank Faceplate
Order Code:
Functions N N H



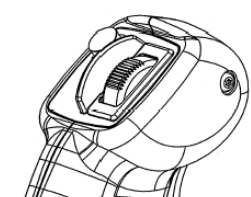
Max. 4 pushbutton switches
Order Code:
Functions 2F 2F H



Combination
FNR switch and AR4
Order Code:
Functions FNR AR4 V



Max. 2 Analog Rocker
(AR4)
Order Code:
Functions AR4 AR4 V



Combination
pushbutton switch and AR4
Order Code:
Functions 1F AR4 V

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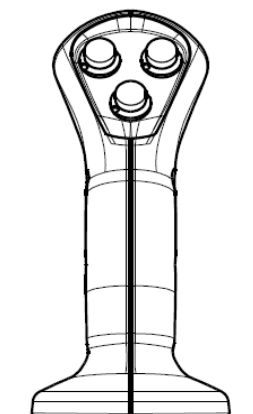


MFG S7

Ordering code		1	2	3	4	5
	Example	S7	TAJ	CS	CS	L-AR4/R-1F
1 Type	S7 = MFG S7					
2 Tube	TAJ = tube for AJ4 TC... = customized tube*					
3 Cable	CAJ = cable for AJ4 CS = standard cable CC... = customized cable*					
4 Connector	CS = standard connector CC... = customized connector*					
5 Functions	N = none 3F = 3 switches L- / R- = Left - / Right - N = none 1F = 1 switch AR4 = Analog Rocker 4					

*Details available on request.

For more technical data and drawings see overleaf.



- Rated for protection class IP67

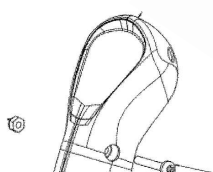
Standard cable (CS):

Typ: AWG 20

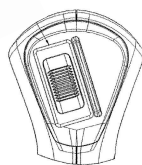
Length: 700 mm (from end of tube) inclusive connector

Connector: Deutsch DT04 - I2P

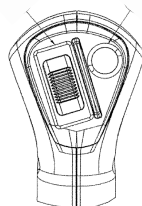
Available variantes



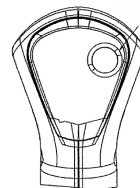
Blank Faceplate
Order Code:
Functions N



AR4 left or right
Order Code:
Functions L-AR4 / R-N



Combination
pushbutton switch and AR4
Order Code:
Functions L-AR4 / R-1F



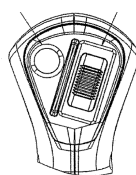
1 pushbutton switch
Order Code:
Functions L-N / R-1F



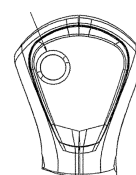
3 pushbutton switches
Order Code:
Functions 3F



AR4 left or right
Order Code:
Functions L-N / R-AR4



Combination
pushbutton switch and AR4
Order Code:
Functions L-1F / R-AR4

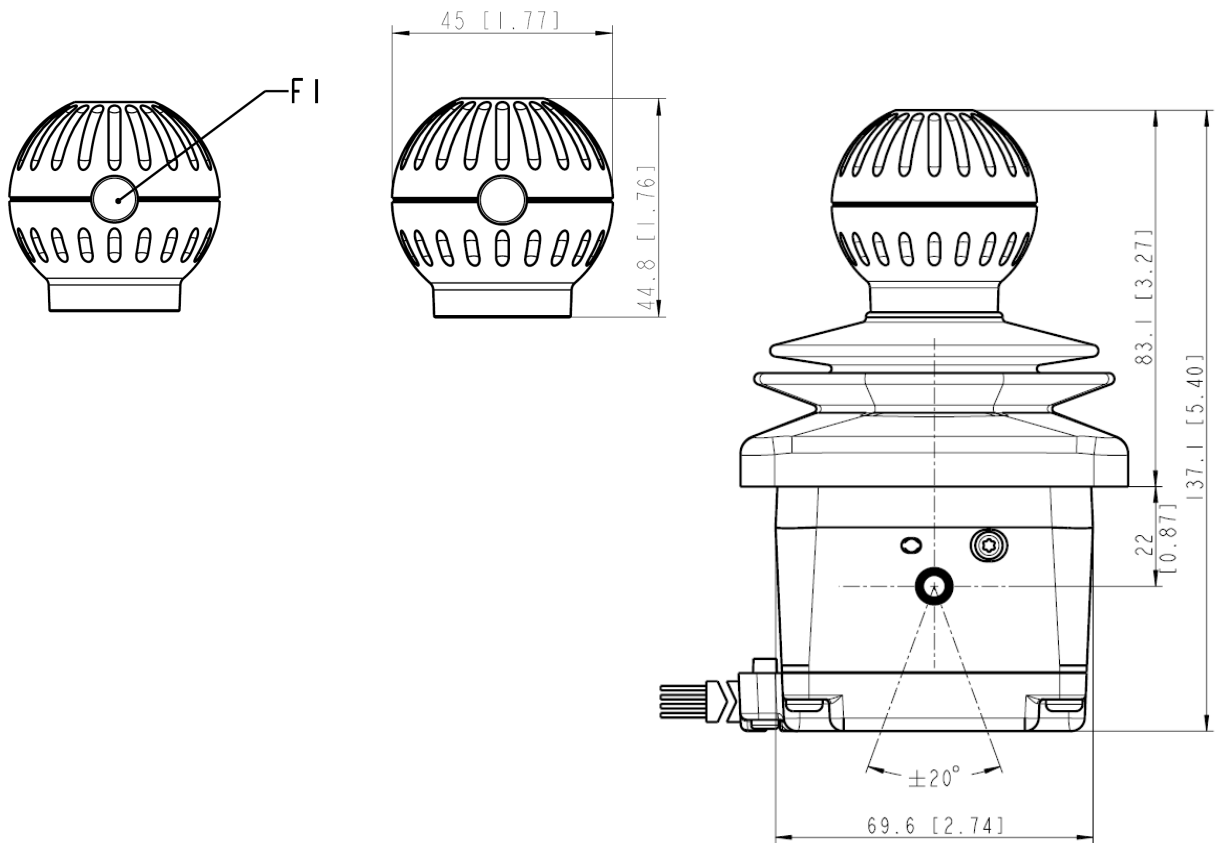


1 pushbutton switch
Order Code:
Functions L-1F / R-N

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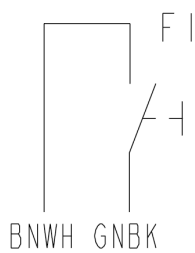


MFG Ball *small*



AJ3 joystick with MFG Ball small

Switch Layout Diagram

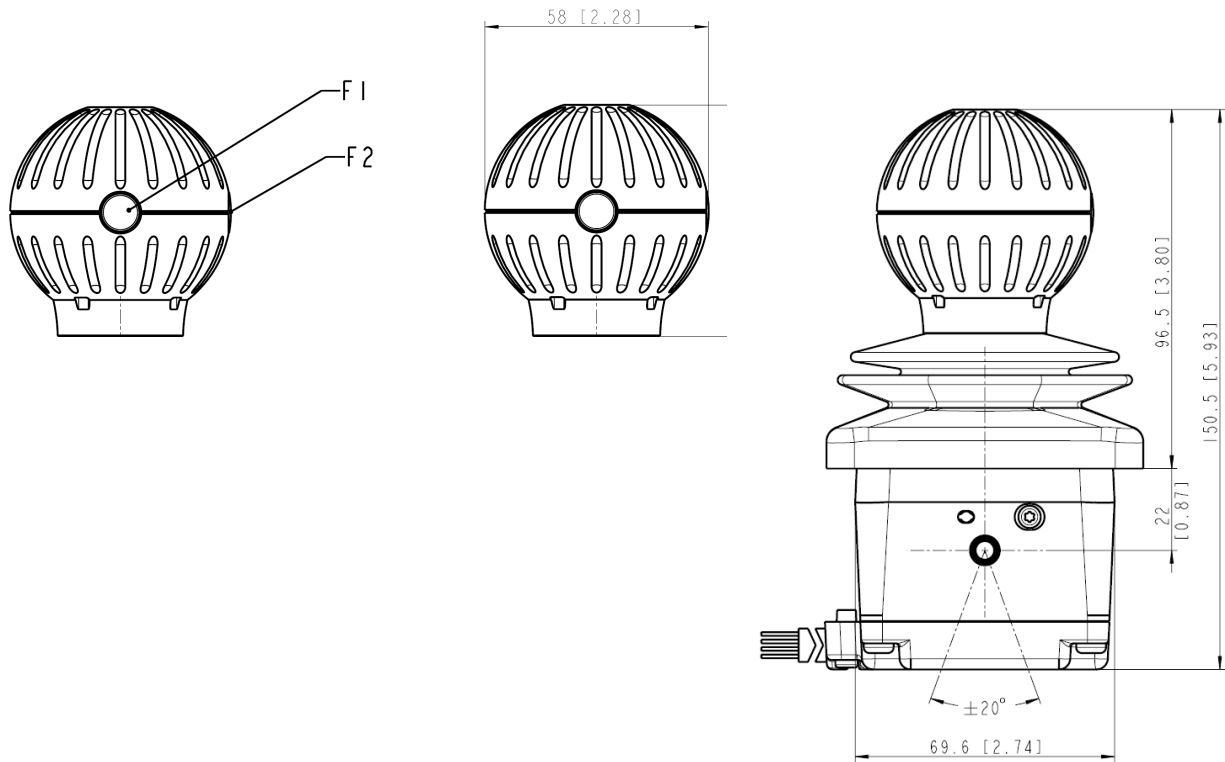


Standard cable (CS):
 Typ: LIFY 0,25mm²
 Length: 1.200 mm (from end of tube)

MFG Multifunction Grips

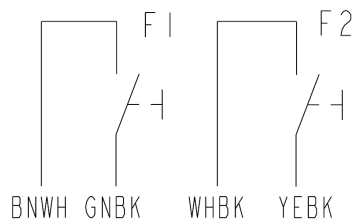


MFG Ball *large*



AJ3 joystick with MFG Ball large

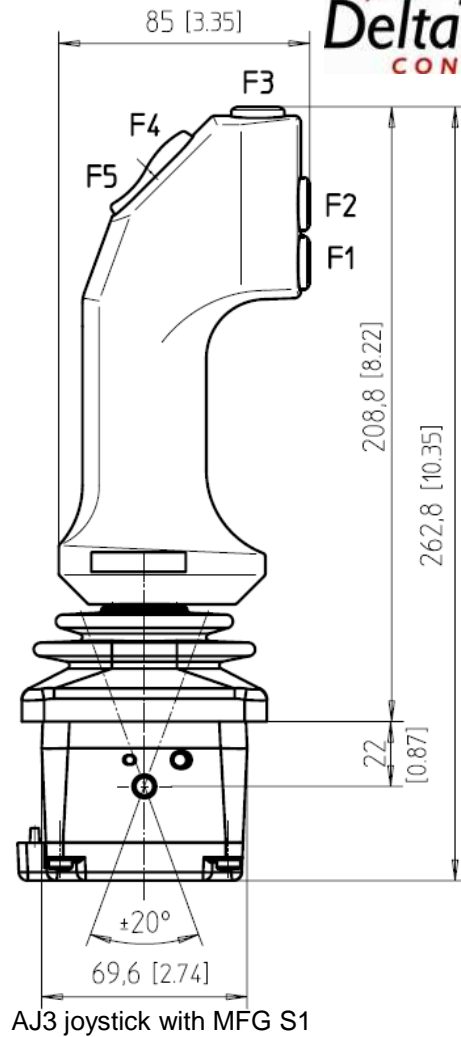
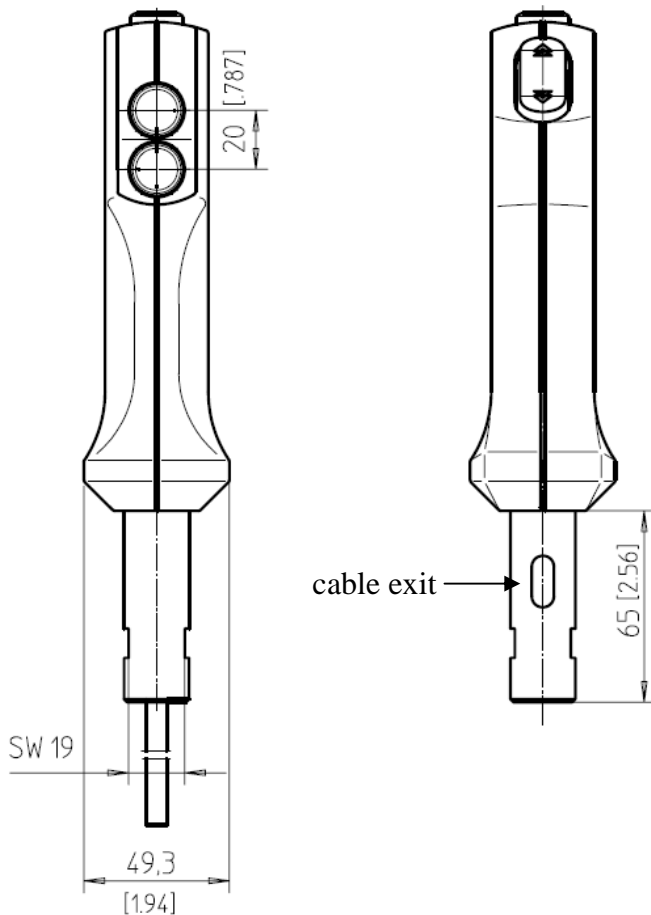
Switch Layout Diagram



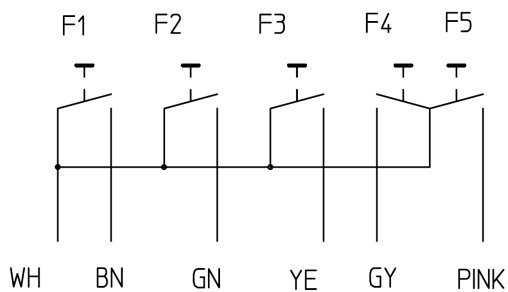
Standard cable (CS):
 Typ: LIFY 0,25mm²
 Length: 1.200 mm (from end of tube)

MFG Multifunction Grips

MFG S1



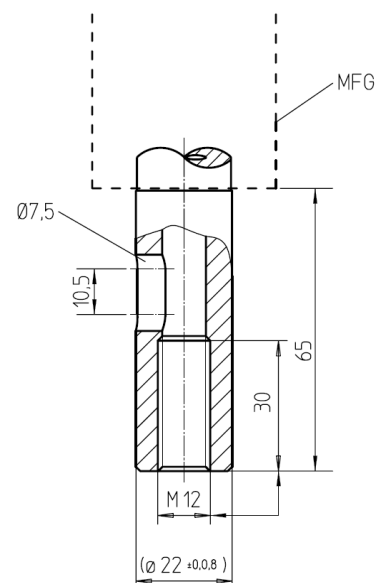
Switch Layout Diagram



Standard cable (CS):

Typ: LIFY 0,35mm²
 Length: 1.000 mm (from end of tube)

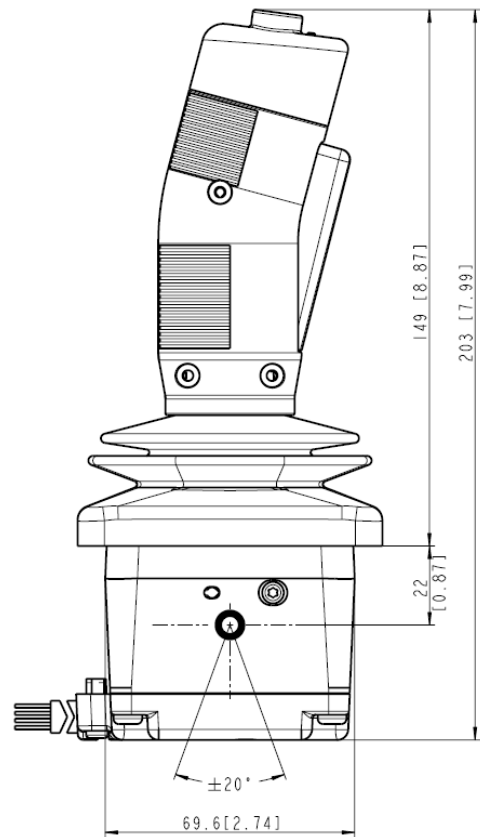
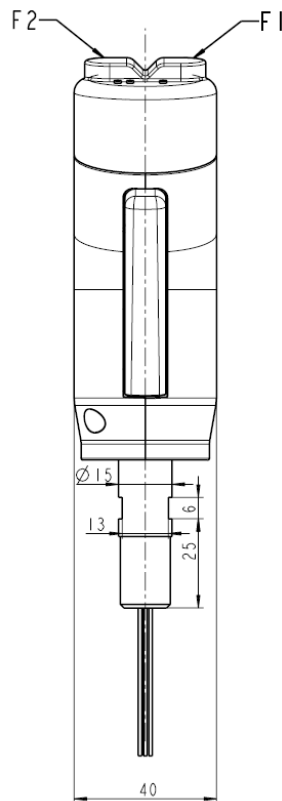
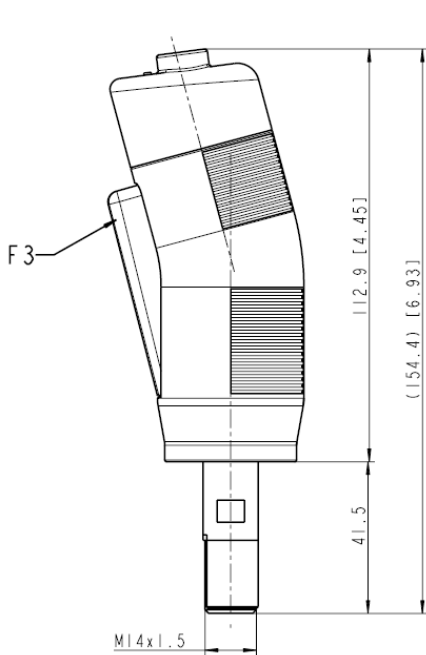
Standard Tube (TS)



MFG Multifunction Grips

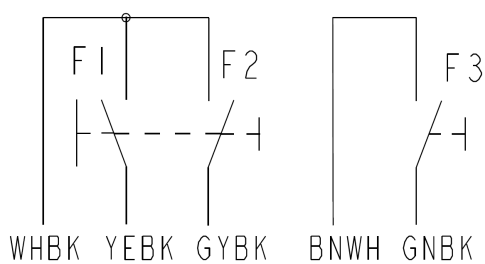


MFG S2



AJ3 joystick with MFG S2

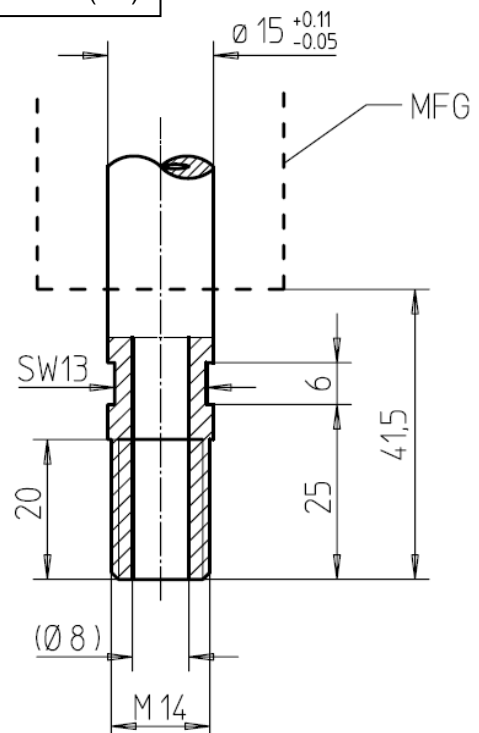
Switch Layout Diagram



Standard cable (CS):

Typ: LIFY 0,25mm²
 Length: 190 mm (from end of tube)

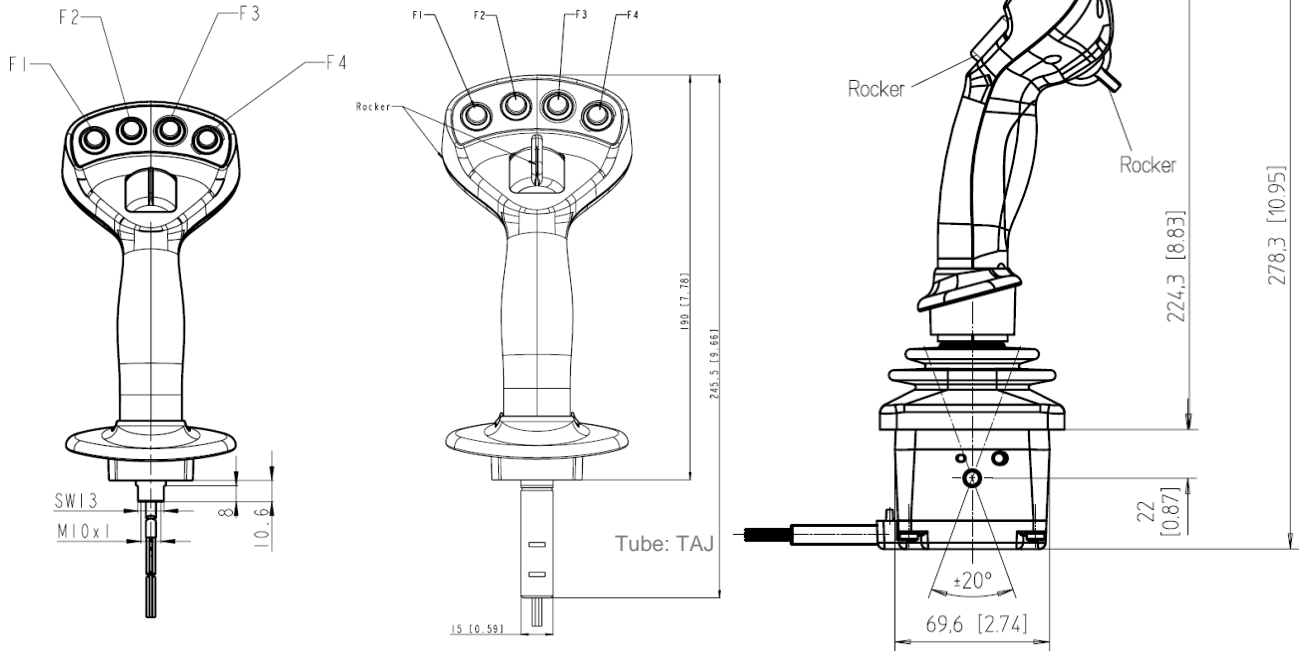
Standard Tube (TS)



MFG Multifunction Grips



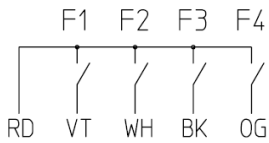
MFG S3



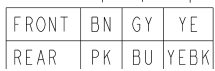
AJ3 joystick with MFG S3

Standard cable (CS):
 Typ: LIFY 0,25mm²
 Length: 1.200 mm
 (from end of tube)

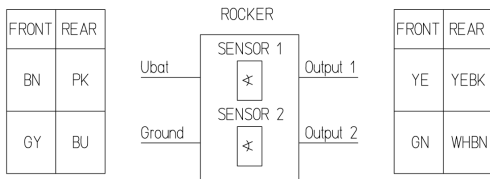
Switch Layout Diagram



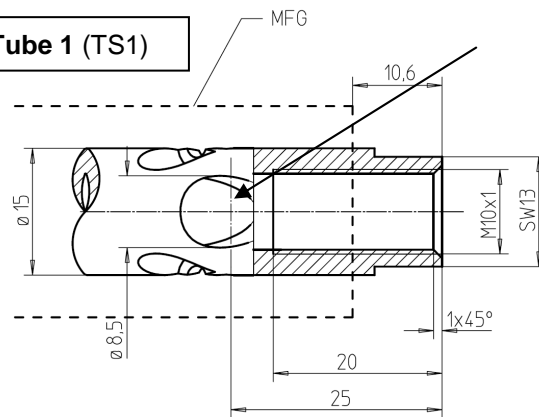
SR3



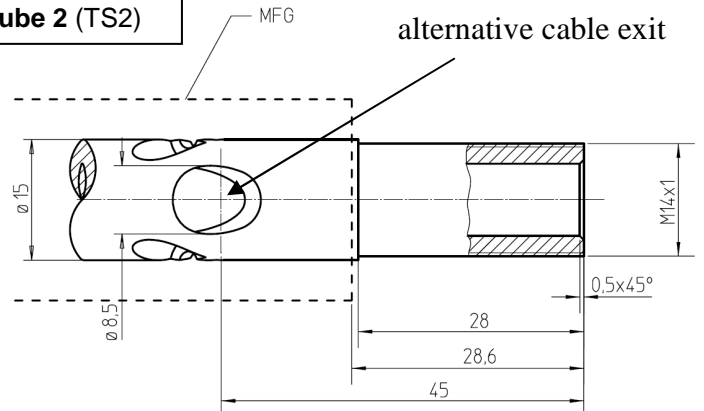
AR3



Standard Tube 1 (TS1)



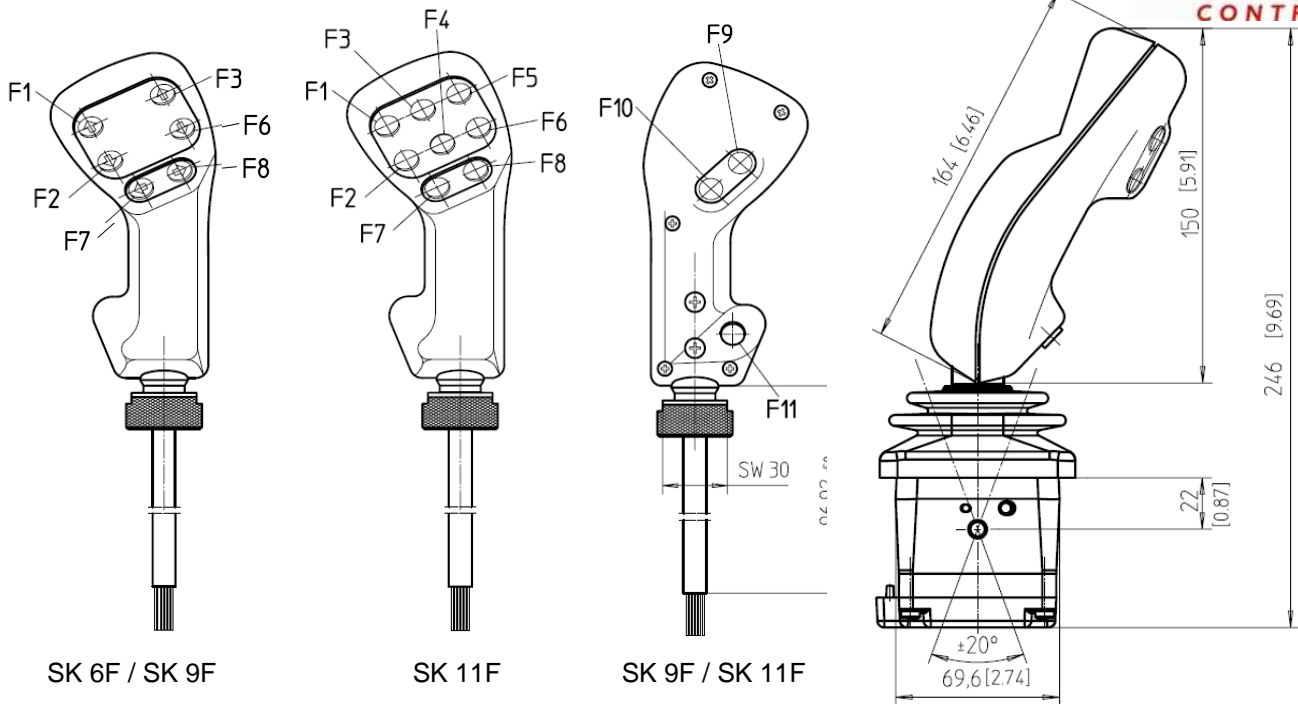
Standard Tube 2 (TS2)



MFG Multifunction Grips



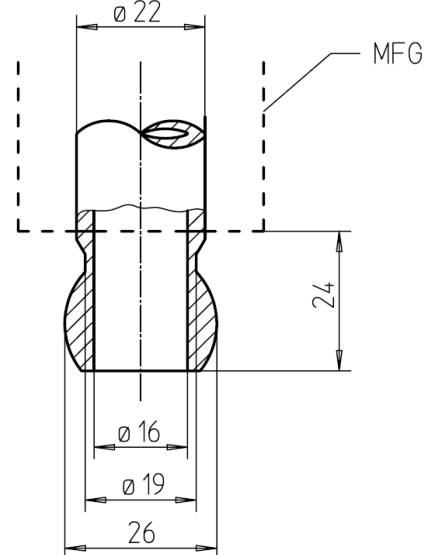
MFG SK



AJ3 joystick with MFG SK

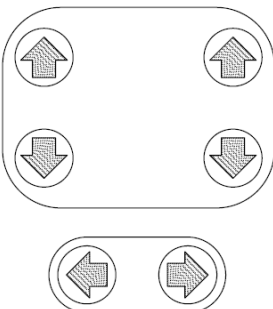
Standard cable (CS):
 Typ: LIFY 0,34 mm²
 Length: 1.140 mm (from end of tube)

Standard Tube (TS)

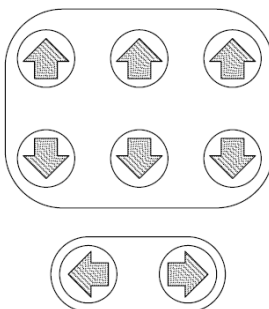


Printing (standard arrows)

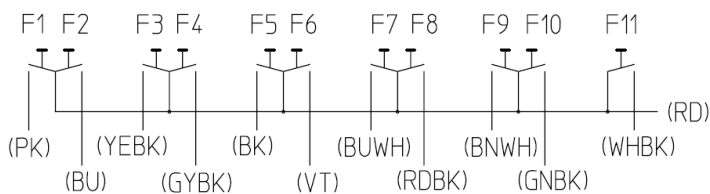
SK FA/FB



SK FC



Switch Layout Diagram

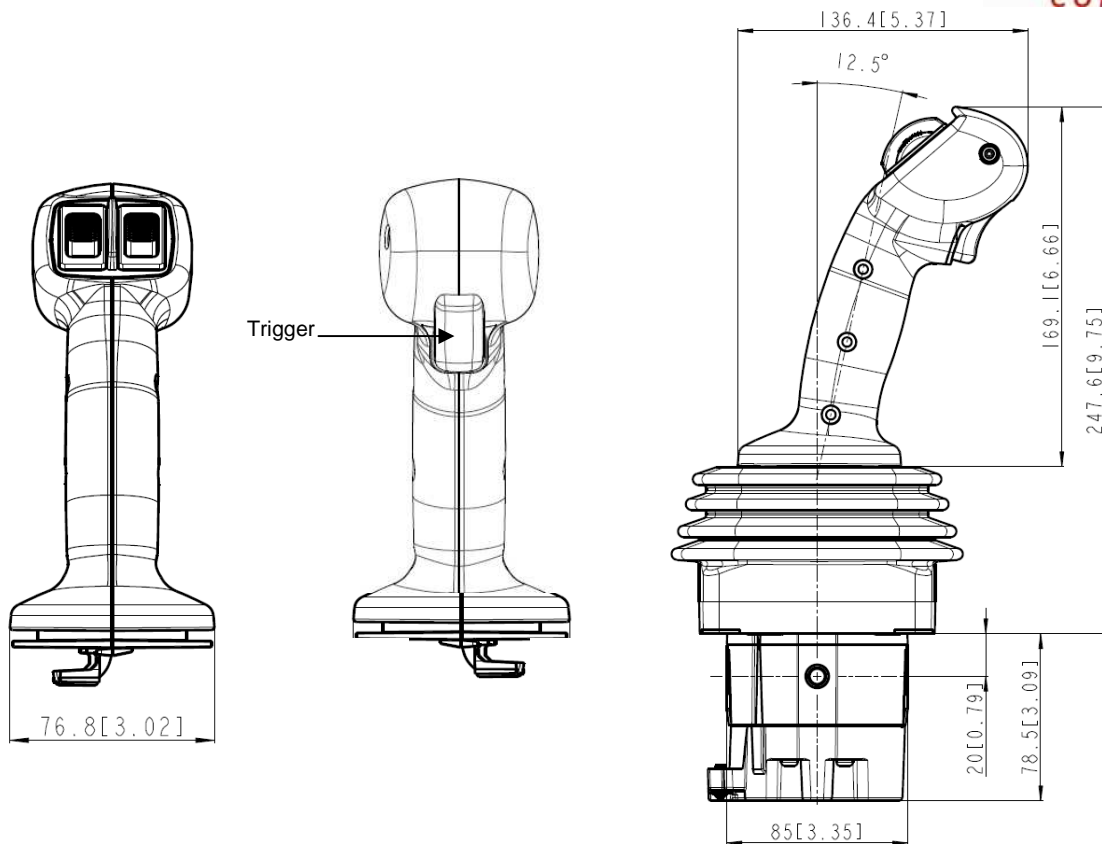


F3, F4 SK 11F only

F9, F10, F11 SK 9F/ 11F only

MFG Multifunction Grips

MFG S4



Standard cable (CS):

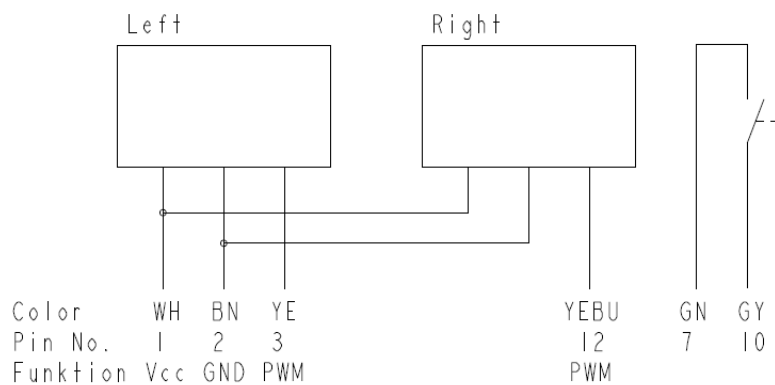
Typ: AWG 20

Length: 700 mm (from end of tube) inclusive connector

Connector: Deutsch DT04 - I2P

Switch Layout Diagram

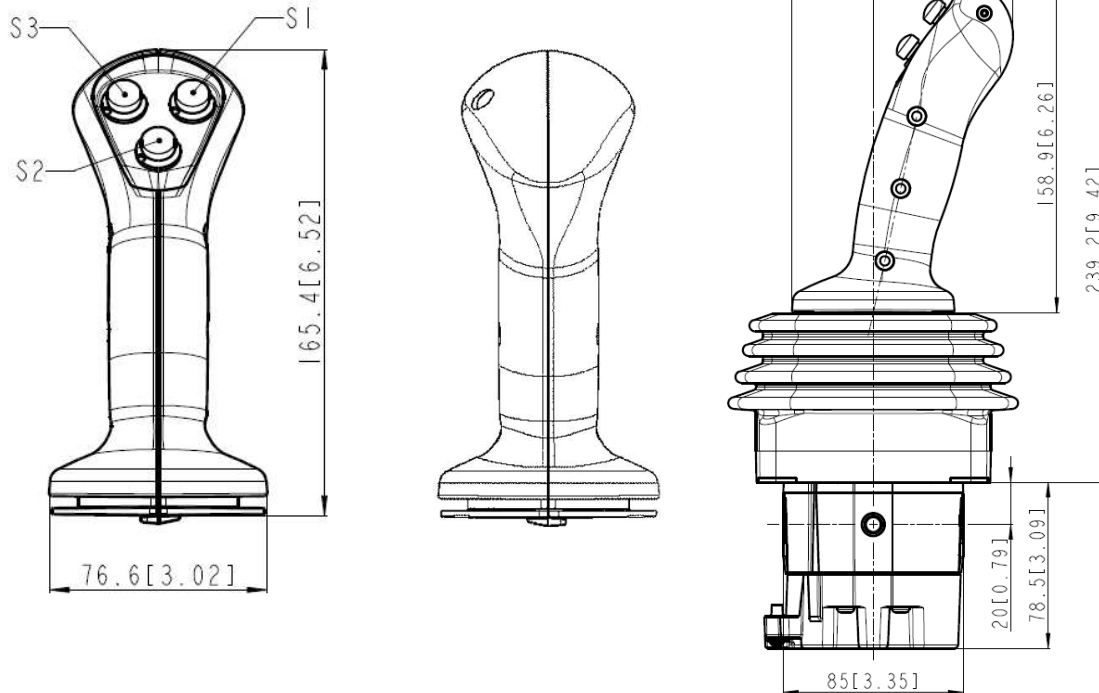
Example for version with 2 AR4 and trigger



MFG Multifunction Grips



MFG S7



Standard cable (CS):

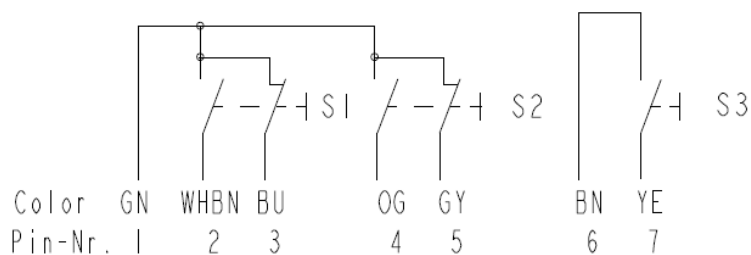
Typ: AWG 20

Length: 700 mm (from end of tube) inclusive connector

Connector: Deutsch DT04 - I2P

Switch Layout Diagram

Example for version with 1 AR4 and 1 pushbutton



MFG Multifunction Grips



DeltaTech Controls – A CoActive Technologies Company - **worldwide Facilities**
With sales offices and manufacturing facilities located worldwide, please visit our website at www.deltatechcontrols.com for a complete listing and to find the office nearest to you.

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