

Handles Ergonomic Multifunction

General:

The ergonomic handles of the series "IE1" are available loose or mounted on our electric and hydraulic joystick or on the levers of directional control valves. Thanks to the ergonomic design and wide range of buttons, "on-off" and proportional, allowing the operator to easily handle with one hand, many operational functions in an intuitive way and with minimal effort, effectively improving the level personal safety and surroundings, being able to focus their attention on the operational functions of the machine, without taking his eyes in search of the commands located on the console.

Particular attention has been devoted to the design and choice of components to the in order to ensure maximum reliability and durability, even under the most severe use.

The range of handles is complemented with a wide range of optional accessories, which include various types of mounting adapters, protective bellows, door-plates with logo buttons and custom symbols, special wiring, in order to meet various application requirements for both mobile machinery for the stationary ones.

Particular attention has been paid to the choice of components and materials to ensure maximum reliability and long life even in the hardest working conditions. The front panel and the push button switches are available in 9 different colours



A wide range of optional accessories are available including a variety of mounting adaptors and rods, protection rubber boots, standard or customized cables and connectors in order to match any need for the various applications like industrial, agriculture, material handling, off-highway and marine.



IEM1

Handles Ergonomic Multifunction

Specifications:

a. handle:

- Shell Material:	Nylon ®
- UV resistance:	Good
- Resistance to mineral hydraulic oils:	Good
- Protection class:	IP 54
- Ambient temperature range:	-20 ° + 60 ° C
- Material of shank:	Galvanized steel or brass

b. Standard buttons (A and B)

- Electrical load:	Max 5 A resistive, 3 A inductive
- Supply voltage:	5 to 28 VDC
- Electrical Life:	25,000 cycles at max up
to 1,000,000 cycles at 1A resistive	
- Mechanical life:	1,000,000 cycles
- Protection class:	IP64 standard (IP68 on request)
- Working temperature range:	- 55 ° to + 85 ° C
- Total travel:	2 mm max
- Operating force:	75 N + / - 20
- Contact material:	silver alloy golden

c. conductors:

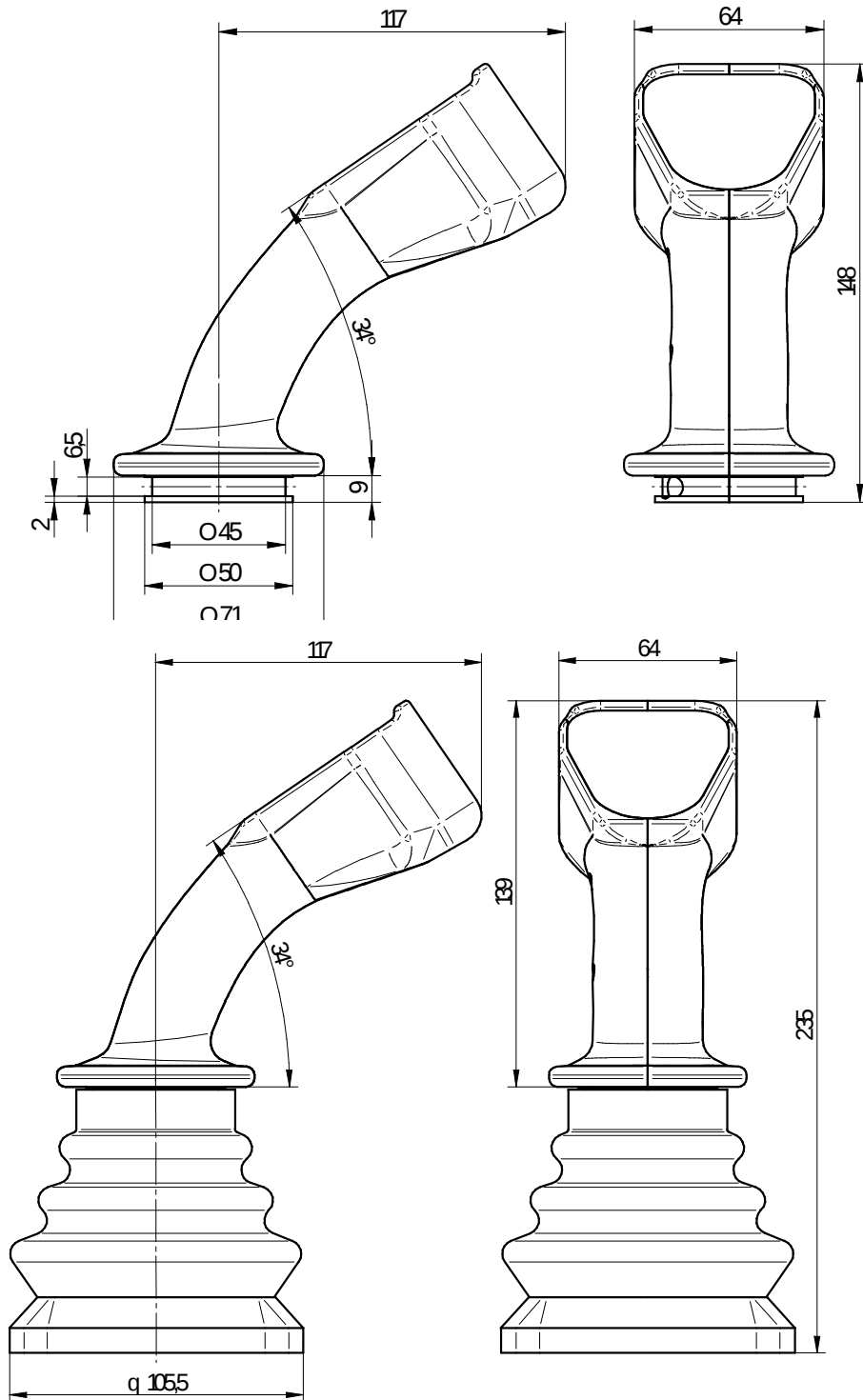
- Materials Conductor:	Stranded tinned copper
- Material outer insulation:	PVC
- Material of the guide-wire braid:	Polyester fiber
- Cross section:	0,50 mm ²
- Core stranding:	Class 6 VDE 0295
- Approvals:	UL - CSA - HAR
- Standard Length:	500 mm (other dimensions on request)

IEM1

Handles Ergonomic Multifunction

3. Overall dimensions:

Handle IE1
without



IEM1

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4.1 Buttons and LED indicator

The images below represent the range of standard buttons, other models are available on request.

		
Pulsante "ON-OFF" standard con cap alto arancio	Pulsante "ON-OFF" standard con cap basso giallo	Pulsante "ON-OFF" basso blu, con led bianco
AO	BY	BLB

		
Pulsante "ON-OFF" alto, rosso, con led	Pulsante "OFF-ON" basso verde, con led rosso	Pulsante "OFF-ON" quadrato, verde, con led
ALR	GLA	GLQ

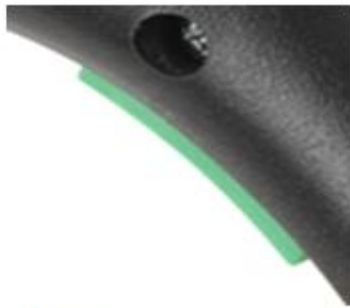
4.2 Buttons and LED indicators:

		
Pulsante rocker "ON-OFF-ON" senza led	Pulsante rocker "ON-OFF-ON" con led	Rocker potenziometrico monoasse
ROI	ROL	RPM



IEM1

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 Rocker potenziometrico monoasse largo RPL	 Pulsante potenziometrico lineare PPL	 Mini-joystick potenziometrico proporzionale MJP
 Potenziometro rotativo a volantino PRV	 Interruttore a leva stabile "OFF-ON" a 2 posizioni ILS	 Mini-joystick "ON-OFF" a 4 <u>contatti</u> MJ4
 Pulsante di emergenza con led PE	 Led di segnalazione ad alta intensità LO	 Pulsante di sicurezza "uomo presente" UP

Handles Ergonomic Multifunction

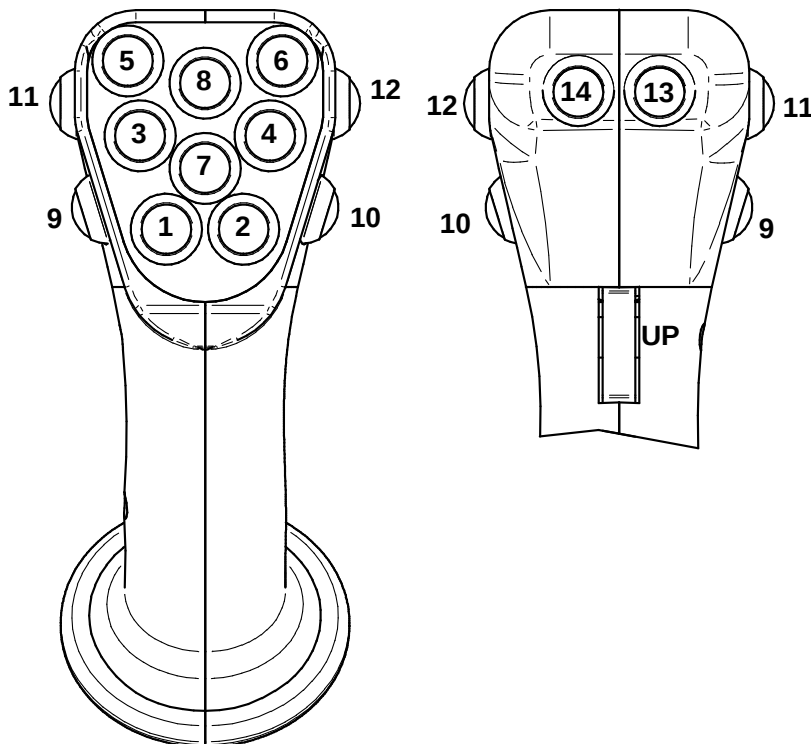
5.1 Colors of the caps

Valid only for standard buttons round type A = B = high and low:

Arancio	O		Giallo	Y		Rosso	R	
Bianco	W		Grigio	H		Verde	G	
Blu	B		Nero	N		Viola	V	

5.2 Positioning of buttons:

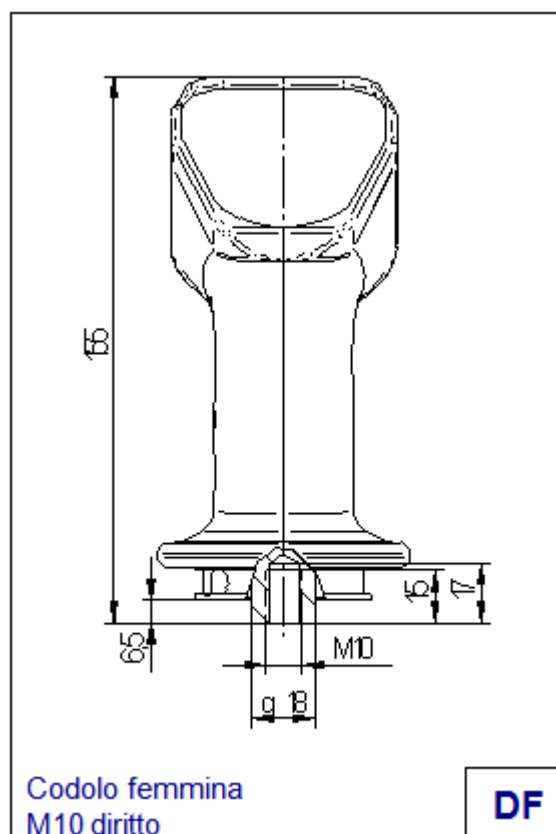
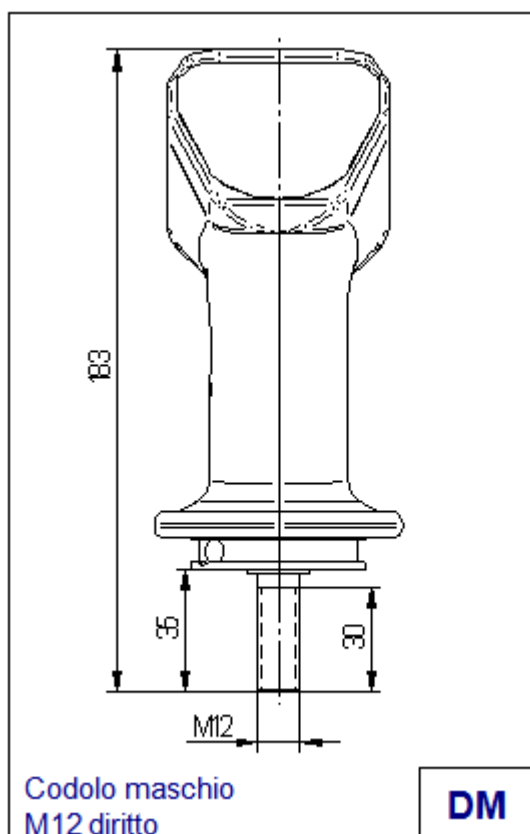
Valid only for standard round buttons (do follow the code of the location the pair of letters identifying the type and color of the caps); codes position of the other buttons are assigned by our office.



IEM1

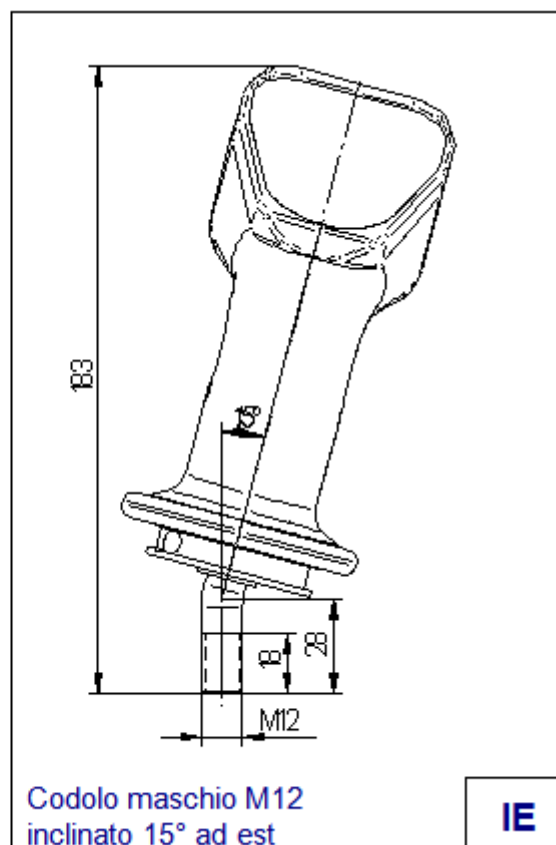
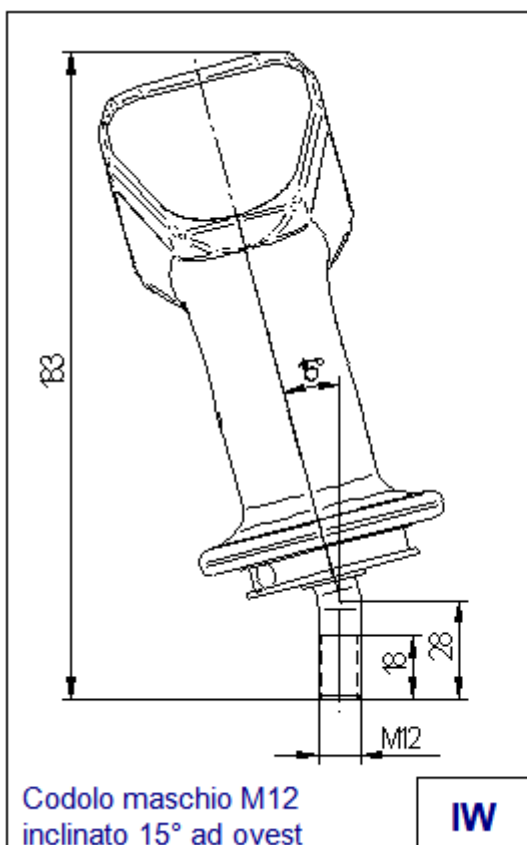
Handles Ergonomic Multifunction

6.1 shanks of mounting:



IEM1

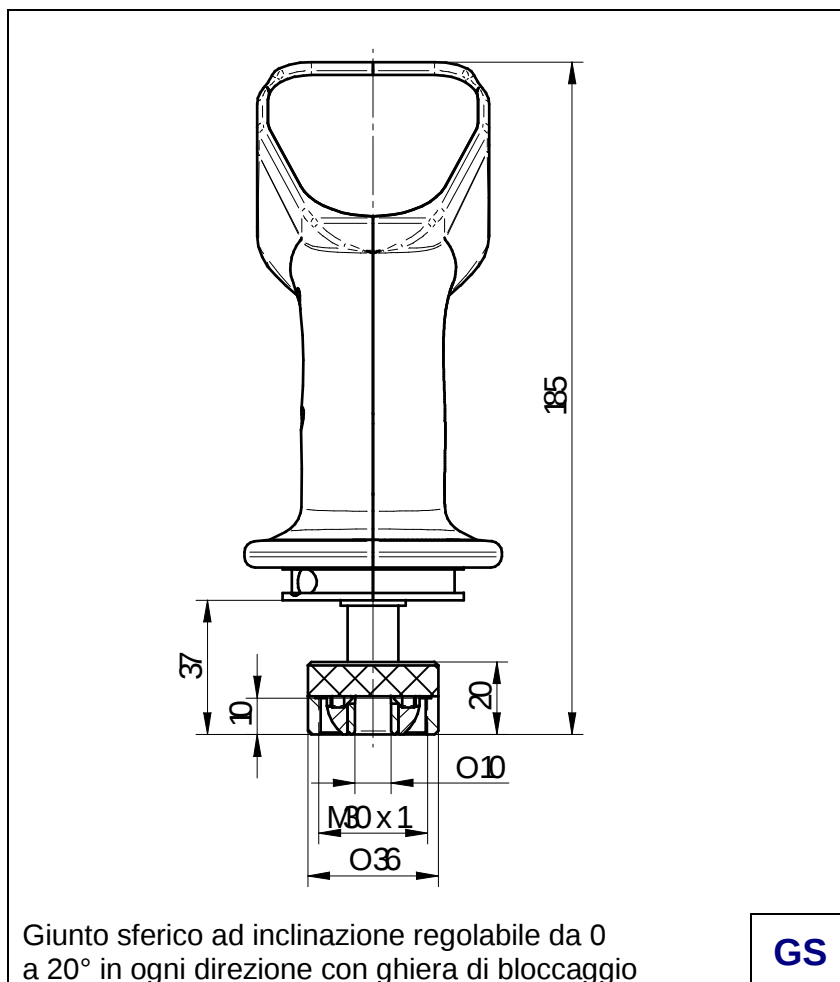
Handles Ergonomic Multifunction



IEM1

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6.2 shanks of mounting:



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7.1 Conductors:

without cables	Z
Unipolar wire 0,50 mm ² , high flexibility	G
Special cable on request (specify characteristics)	R

7.2 Lunghezza dei cavi:

without cables	00
Standard length in cm from the base of the	50
Length on request (specify the value in cm)	XX

7.3 Terminali dei cavi:

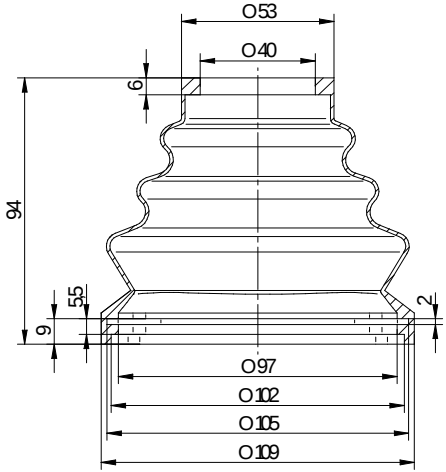
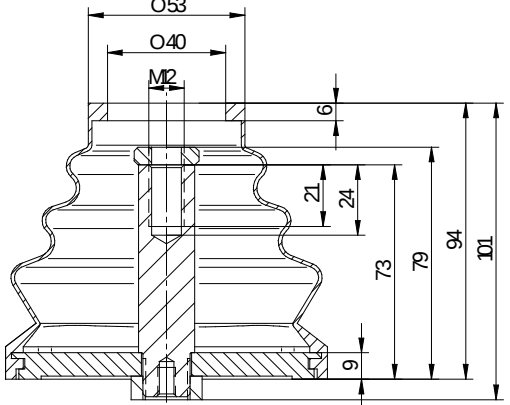
without cables	Z
Terminal with stripping 5 mm, tinned	N
Terminal with stripping 5 mm, tinned	S
Wired connector (please specify make and model)	C

8. Protective bellows:

without rod protection	Z
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With dust cover rubber	With dust cover and mounting flange
Q 	F  Mounted on 4 slots wide 7 mm arranged on diameter D = 100 ÷ 108

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IE1	BG1	BY2	AR3	AB4	UP	DF	G	50	N	Q	Chiave di ordinazione impugnatura serie IE1
											Q = square bellows (p. 10)
											N = standard cable terminals (p. 10)
											50 = 50 cm standard length cables (p. 9)
											G = single-core cable of 0.50 mm ² (p. 9)
											DF = the fixing shank right M10 female (p. 8-9)
											UP = safety button "Man" (p. 5-6)
											AB4 = standard button with cap high, blue pos. 4 (p. 5-6)
											AR3 = standard button with cap high, red pos.3 (p. 5-6)
											BY2 = standard button with cap bottom, amber item 2 (page 5 - 6)
											BG1 = standard button with cap low, green, item 1 (page 5 ÷ 6)
											IE1 = type series

The company assumes no responsibility for any errors that may appear in this document and reserves the right to change the descriptions and data without prior notice.

