

# MFE

## MULTIFUNCTION ERGONOMIC HANDLES AND KNOBS



## HANDLES AND KNOBS

### INTRODUCTION

The handles and knobs included in this catalogue are available for fitting either to the extensive range of our pilot valve or alternatively as a separate item for fitting to other type of product.

The materials are chosen to be suitable for either internal or external use and are resistant to ultra-violet effects. They are also suitable for a wide range of other environmental conditions.

The standard straight ergonomic handle is available with a range of switches and push-buttons, while the MFE handle range is available with a range of switches and push buttons to suit different operating and environmental conditions.

The MFE handle range can be configured to suit either left hand or right hand operation.

Different circuit arrangements can be accommodated within the handle and the wiring can be built into connectors to customer specifications.

### BENEFITS

- Range of knobs for individual lever control
- Range of straight levers, with and without switches, for dual axis controls
- Extensive range of stylish multi-functional lever options
- Extensive range of electrical switch and button options
- Adaptable to both Hansa-Tmp and other manufacturers equipment
- Circuits and connectors to customer requirements
- Switch options allow left hand or right hand operation
- Tolerant many environmental conditions
- High durability, low maintenance

### MODEL CODING

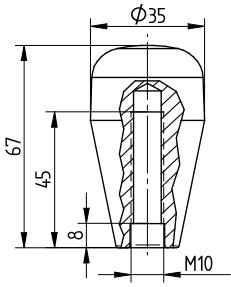

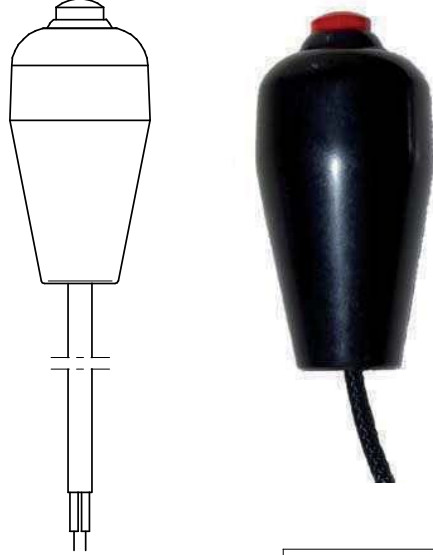
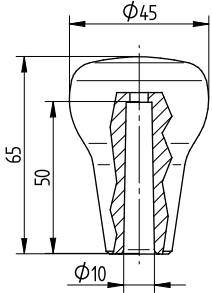

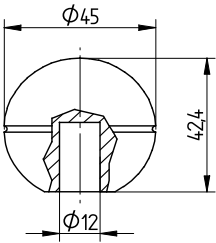

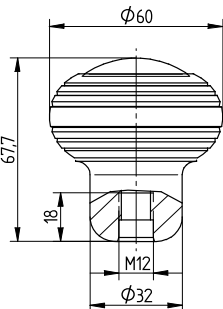

**K - K SERIES KNOBS**

- |           |                              |
|-----------|------------------------------|
| <b>KB</b> | = Duroplast Knob             |
| <b>KC</b> | = Technopolymer knob         |
| <b>KD</b> | = Duroplast knob with switch |
| <b>KK</b> | = Knob with rubber cap       |
| <b>KL</b> | = Knob with len              |
| <b>KP</b> | = Spherical knob             |
| <b>KW</b> | = Knob with switch           |

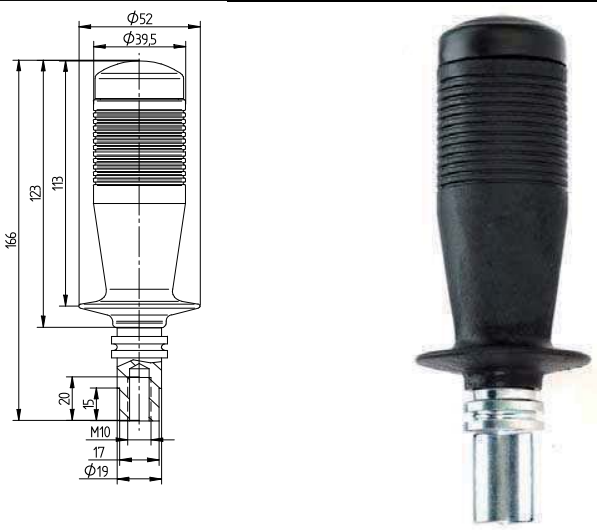
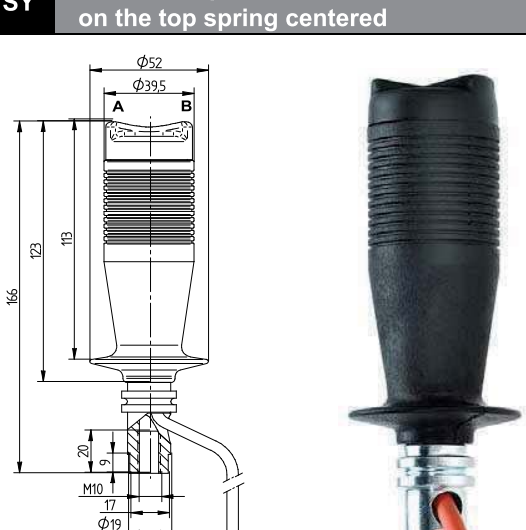
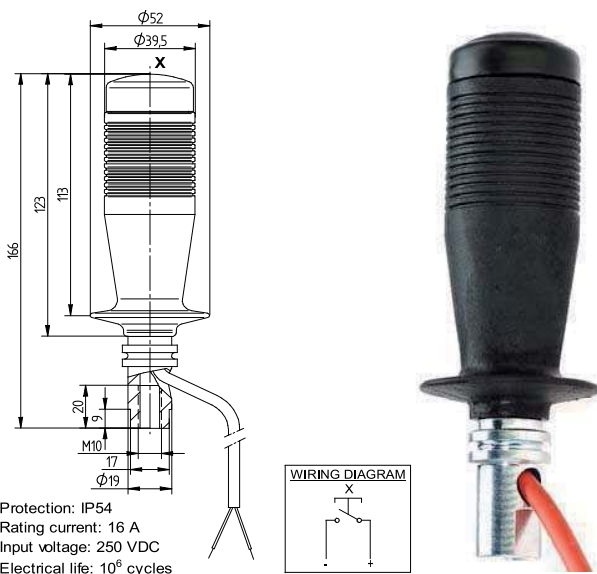
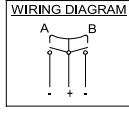
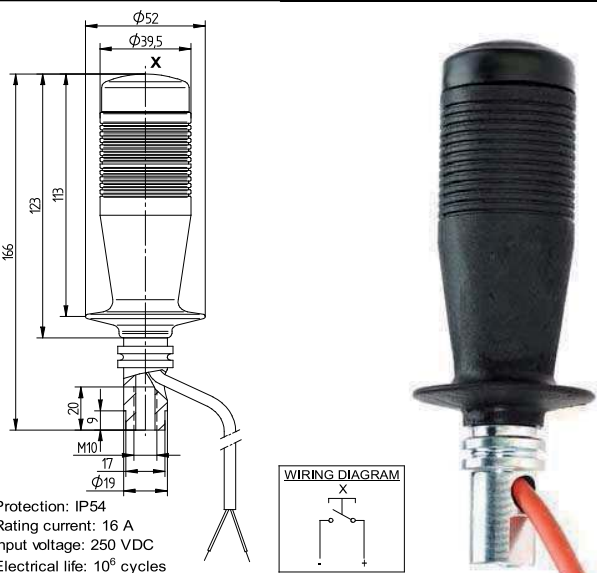
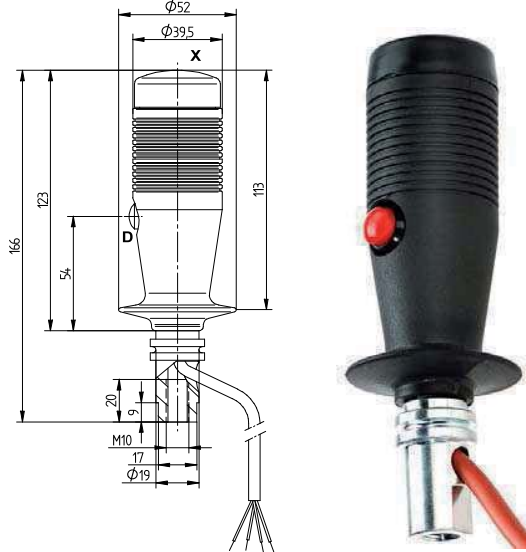
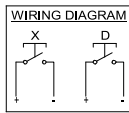
**S - S SERIES ERGONOMIC**

- |           |  |
|-----------|--|
| <b>SA</b> | = Handle without electric switch                         |
| <b>SD</b> | = Handle with electric switch                            |
| <b>SS</b> | = Handle with electric switch to close and safety button |
| <b>SX</b> | = Handle with electric switch to close                   |
| <b>SY</b> | = Handle with electric switch dual rocker type           |

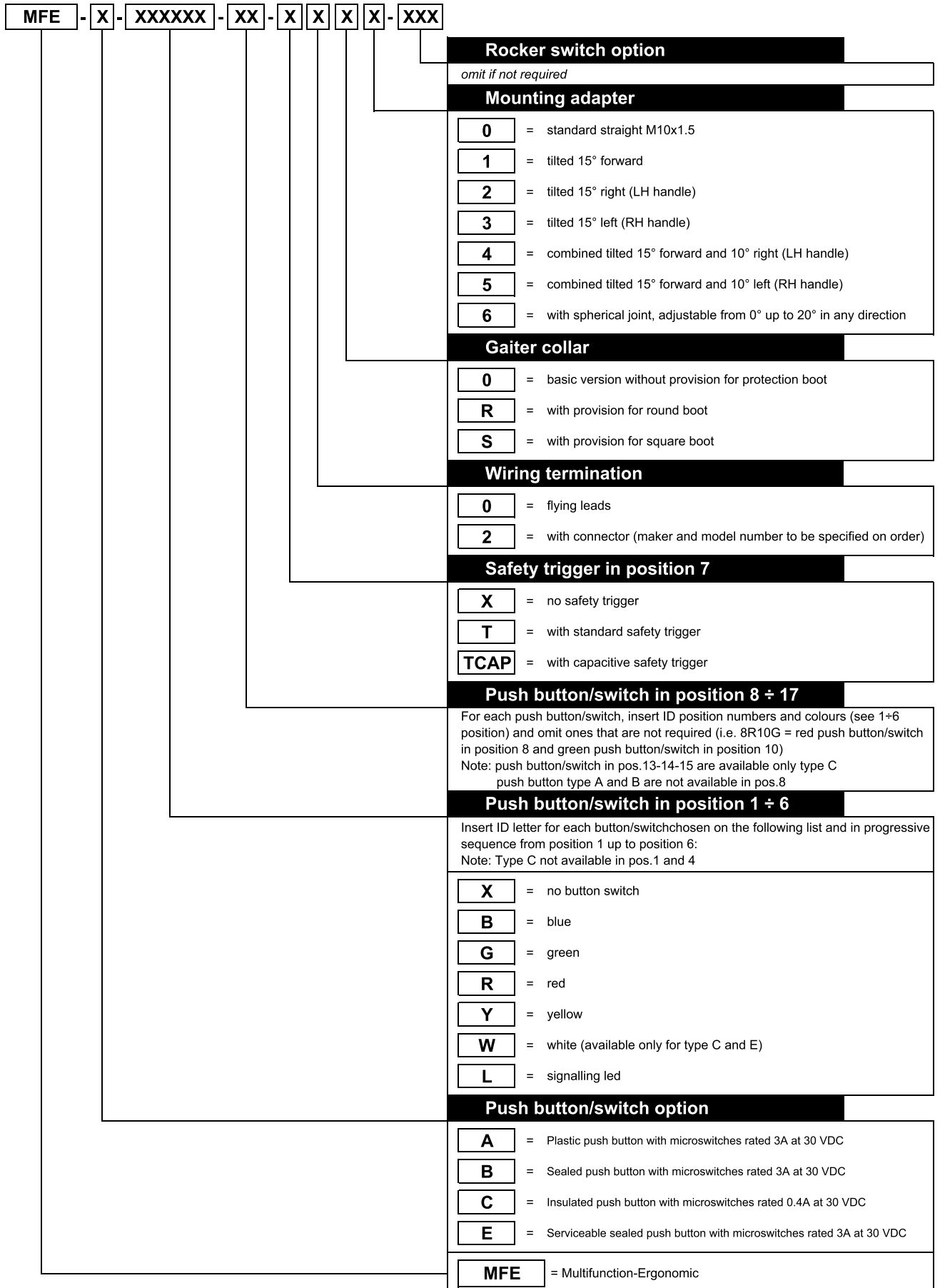
## KNOBS - TECHNICAL DATA

KB Duroplast knob	KD Duroplast knob with switch
 	 <div data-bbox="1193 931 1350 1151" style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;">WIRING DIAGRAM</p>  </div>
<p data-bbox="236 674 555 701"><b>KC Technopolymer knob</b></p>  	<p data-bbox="855 1032 1062 1133">Protection: IP64 Rating current: 1 A Input voltage: 30 VDC Electrical life: 10<sup>6</sup> cycles</p> <p data-bbox="855 1178 1182 1200">For installation dimension see knob KB</p>
<p data-bbox="236 1032 488 1059"><b>KP Spherical knob</b></p>  	<p data-bbox="874 1234 1150 1256"><b>KW Knob with switch</b></p>
<p data-bbox="236 1397 560 1424"><b>KK Knob with rubber cap</b></p>  	
<p data-bbox="236 1762 472 1789"><b>KL Knob with len</b></p>  	<div data-bbox="1185 1839 1342 2058" style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; margin: 0;">WIRING DIAGRAM</p>  </div> <p data-bbox="855 1928 1062 2029">Protection: IP54 Rating current: 5 A Input voltage: 250 VAC Electrical life: 10<sup>5</sup> cycles</p> <p data-bbox="855 2074 1182 2096">For installation dimension see knob KK</p>

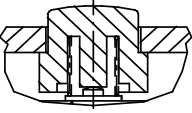

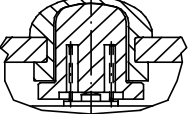

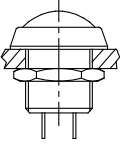

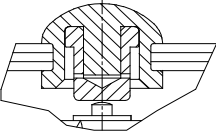

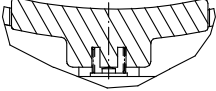


## STRAIGHT HANDLES - TECHNICAL DATA

<p><b>SA Without switch</b></p> 	<p><b>SY With one 3 position rocker switch on the top spring centered</b></p> 
<p><b>SX With one switch on the top</b></p>  <p>Protection: IP54 Rating current: 16 A Input voltage: 250 VDC Electrical life: 10<sup>6</sup> cycles</p>	<p>Protection: IP54 Rating current: 16 A Input voltage: 250 VDC Electrical life: 10<sup>6</sup> cycles</p> <p><b>WIRING DIAGRAM</b></p> 
<p><b>SS With one switch on the top with safety cage</b></p>  <p>Protection: IP54 Rating current: 16 A Input voltage: 250 VDC Electrical life: 10<sup>6</sup> cycles</p>	<p><b>SD With one switch on the top and one switch on the side</b></p>  <p>Protection: IP54 Rating current: 16 A on X, 1 A on D Input voltage: 250 VDC on X, 30 VDC on D Electrical life: 10<sup>6</sup> cycles</p> <p><b>WIRING DIAGRAM</b></p> 



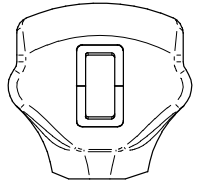
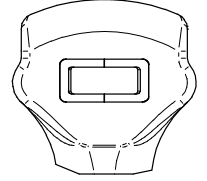
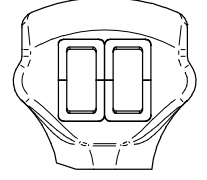
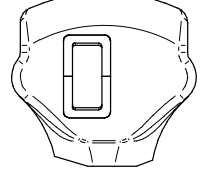
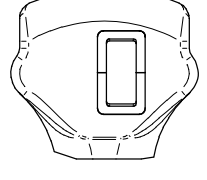
## MULTIFUNCTION ERGONOMIC HANDLES - MODEL CODING





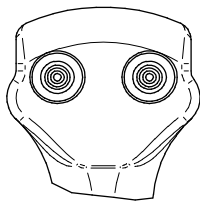
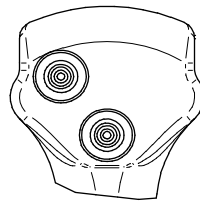
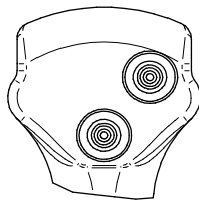
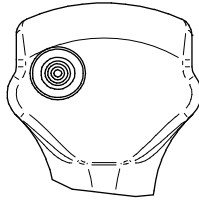
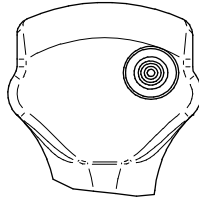
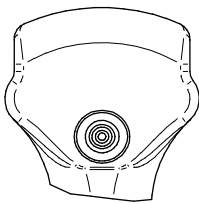
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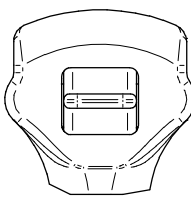

<p><b>A</b> <b>PLASTIC PUSH BUTTON</b></p> <p>Protection: IP67            Rating current: 3 A            Input voltage range 30 VDC            Electrical life: 10<sup>6</sup> cycles</p>		
<p><b>B</b> <b>SEALED PUSH BUTTON</b></p> <p>Protection: IP67            Rating current: 3 A            Input voltage range 30 VDC            Electrical life: 10<sup>6</sup> cycles</p>		
<p><b>C</b> <b>ISOLATED PUSH BUTTON</b></p> <p>Protection: IP67            Rating current: 0,4 A            Input voltage range 30 VDC            Electrical life: 10<sup>6</sup> cycles</p>		
<p><b>E</b> <b>SEALED SERVICEABLE PUSH BUTTON</b></p> <p>Protection: IP67            Rating current: 3 A            Input voltage range 30 VDC            Electrical life: 10<sup>6</sup> cycles</p>		
<p><b>T</b> <b>SAFETY TRIGGER</b></p> <p>Protection: IP67            Rating current: 3 A            Input voltage range 30 VDC            Electrical life: 10<sup>6</sup> cycles</p>		
<p><b>TCAP</b> <b>CAPACITIVE SAFETY TRIGGER</b></p> <p>Protection: IP54            Rating current: 2,6 A            Input voltage range 10-30 VDC            Electrical life: 3x10<sup>6</sup> cycles            EMC tested</p>		


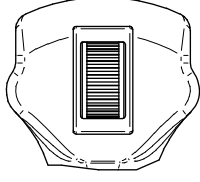
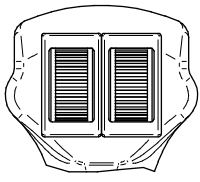
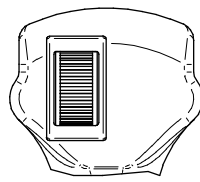
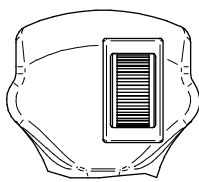
## MULTIFUNCTION ERGONOMIC HANDLES - ROCKER SWITCH OPTIONS

<b>S TYPE</b>	<b>Waterproof rocker switch</b>	<b>R TYPE</b>	<b>Long life rocker switch</b>
Protection: IP68 Rating current: 10A (28 VDC) Life: 5x10 <sup>4</sup> Cycles		Protection: IP67 Rating current: 0.25A (28 VDC) Life: 10 <sup>6</sup> Cycles	
	<p><b>Vertical mounted</b></p> <p><b>S1B:</b> IP68 3 Position momentary rocker switch  <b>S2B:</b> IP68 3 position latched rocker switch</p> <p><b>R1B:</b> Long life position momentary rocker switch  <b>R2B:</b> Long life 3 position latched rocker switch</p>		
	<p><b>Horizontal mounted</b></p> <p><b>S1A:</b> IP68 3 Position momentary rocker switch  <b>S2A:</b> IP68 3 position latched rocker switch</p> <p><b>R1A:</b> Long life position momentary rocker switch  <b>R2A:</b> Long life 3 position latched rocker switch</p>		
	<p><b>Two vertical mounted</b></p> <p><b>S4A:</b> IP68 3 Position momentary rocker switch  <b>S4B:</b> IP68 3 position latched rocker switch</p> <p><b>R4A:</b> Long life position momentary rocker switch  <b>R4B:</b> Long life 3 position latched rocker switch</p>		
	<p><b>Vertical mounted left offset</b></p> <p><b>S1C:</b> IP68 3 Position momentary rocker switch  <b>S2C:</b> IP68 3 position latched rocker switch</p> <p><b>R1C:</b> Long life position momentary rocker switch  <b>R2C:</b> Long life 3 position latched rocker switch</p>		
	<p><b>Vertical mounted right offset</b></p> <p><b>S1D:</b> IP68 3 Position momentary rocker switch  <b>S2D:</b> IP68 3 position latched rocker switch</p> <p><b>R1D:</b> Long life position momentary rocker switch  <b>R2D:</b> Long life 3 position latched rocker switch</p>		

### MULTIFUNCTION ERGONOMIC HANDLES - OTHER SWITCH OPTIONS

<b>D</b> 4 WAY ON-OFF SWITCH			
Protection: IP68 Rating current: 1A (28 VDC) Electrical life: 10 <sup>5</sup> cycles			
<b>DLDRDB</b> 3 switches	<b>DLDR</b> 2 switches top	<b>DLDB</b> 2 switches left	<b>DRDB</b> 2 switches right
			
<b>DL</b> 1 switch left	<b>DR</b> 1 switch right	<b>DB</b> 1 switch center	
			

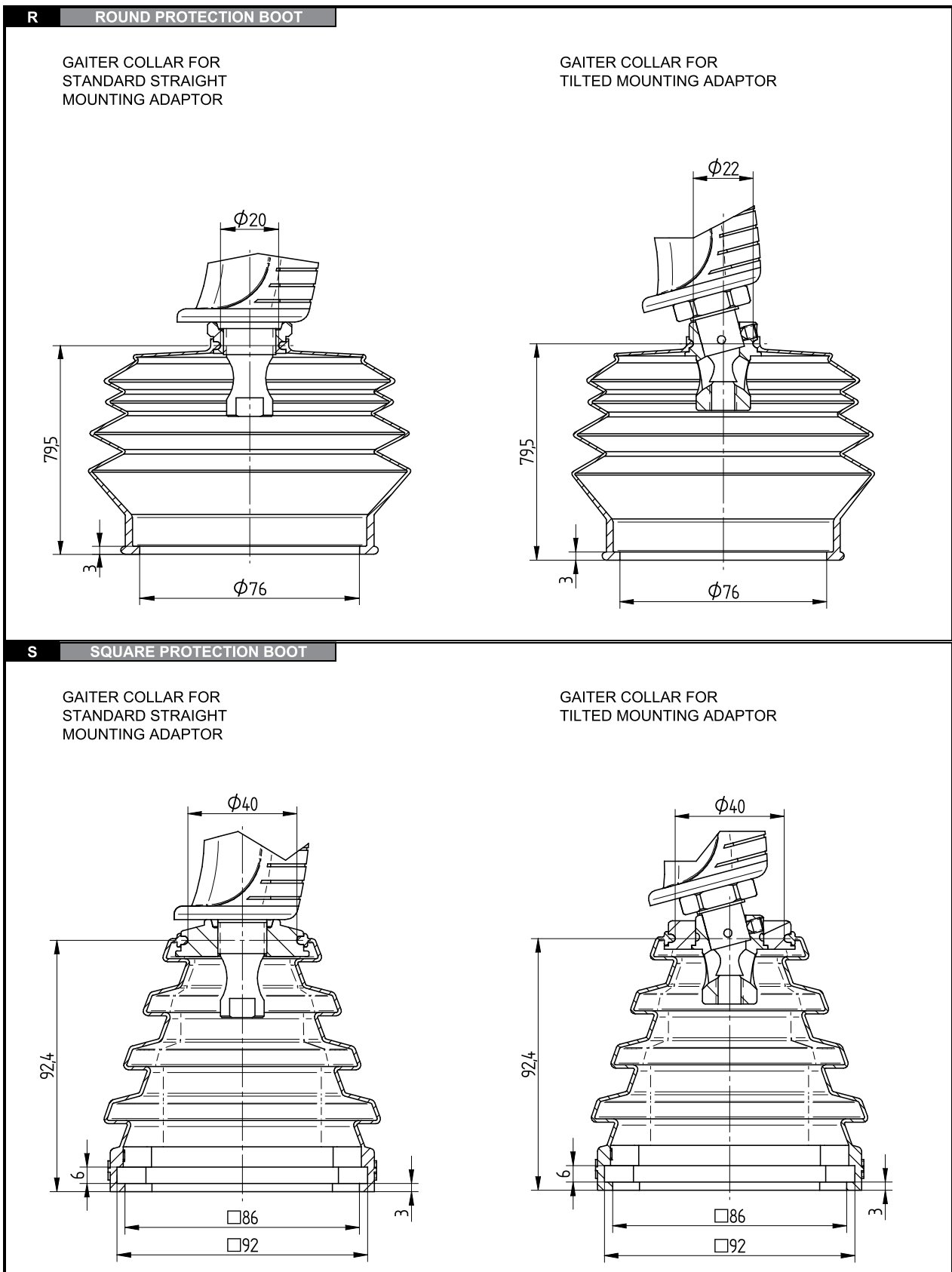
<b>R3</b> PROPORTIONAL ANALOGUE ROCKER		
Protection: IP65 Rating current: 0,01 A Input voltage range 8-30 VDC Output signal 0,5-4,5 VDC with 2,5V in neutral position Electrical life: 2x10 <sup>6</sup> cycles		

<b>RP</b> PROPORTIONAL ROLLER			
Protection: IP68 Rating current: 0.028 A (5 VDC MAX) Output signal 0,5-4,5 VDC with 2,5V in neutral position Electrical life: 2x10 <sup>6</sup> cycles			
<b>RP</b> One centered	<b>2RP</b> Two centered	<b>RPS</b> One left offset	<b>RPD</b> One right offset
			





## MULTIFUNCTION ERGONOMIC HANDLES - PROTECTIVE BOOTS



## MULTIFUNCTION ERGONOMIC HANDLES - MOUNTING ADAPTERS

