

# Compatibility for EMC, climate and mechanical load



for drivers, axis cards, transducers and sensors

Electronic drivers, axis cards and transducers are the most critical valve components concerning the risk of electromagnetic interferences, water entrance and mechanical stress. As per applicable International Standards, the following tables summarize the environmental resistance features of Atos industrial electronic devices:

- on-board and off-board drivers
- on-board and off-board axis cards
- LVDT and pressure transducers
- inductive position switch and inductive proximity sensors

## 1 EMC ELECTROMAGNETIC COMPATIBILITY according to Directive 2014/30/UE

The EMC Directive identifies the ability of a device, equipment or system to function in an electromagnetic environment in a satisfactory manner (immunity), without produce intolerable electromagnetic interferences into any equipment in same environment (emission).

	<b>CEI EN 61000-6-2</b>	Immunity for industrial environments
	<b>CEI EN 61000-6-3</b>	Emission standard for residential, commercial and light-industrial environments
	<b>CEI EN 61000-6-4</b>	Emission standard for industrial environments

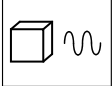
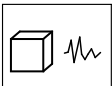

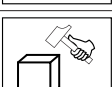


## 2 IP INGRESS PROTECTION CLASSIFICATION according to CEI EN 60529

IP (Ingress Protection) coding system indicates the degree of protection provided by an enclosure against access to hazardous parts, against ingress of solid foreign objects, ingress of water and to give additional information in connection with such protection. The minimum ensured IP protection reported for each component is intended with relevant connectors correctly installed.

Ingress Protection	Protection against solid objects	Protection against liquids penetration
<b>IP20</b>	<b>2</b> = protected against solid bodies of superior dimensions to 12 mm; protect against the access with a finger	<b>0</b> = not protect
<b>IP65</b>	<b>6</b> = totally protect against the powder; protect against the access with a wire	<b>5</b> = protect against water jets
<b>IP66</b>		<b>6</b> = protect against powerful water jets
<b>IP67</b>		<b>7</b> = protect against the effects of temporary immersion

## 3 MECHANICAL RESISTANCE TEST CONDITIONS according to CEI EN 60068-2-6 (Vibrations, Sine & Random) - CEI EN 60068-2-27 (Shock)

The Mechanical Resistance test determines the ability of components, equipment and other articles to withstand specified severities of sinusoidal/random vibration and shock.

	<b>Sine test</b>	10 cycles 5-2000-5 Hz with logarithmic frequency variation 1 Octave/min 5-57 Hz amplitude 1.5 mm (p-p) 57-2000 Hz acceleration 10 g Tested on three axes X, Y, Z
	<b>Random test</b>	20-2000 Hz Spectral acceleration density 0.05 g <sup>2</sup> / Hz Testing time 30 min. each axis Tested on three axes X, Y, Z
	<b>Shock test</b>	Half sine wave shock 50 g / 11 ms Three tests for each axis, in positive and negative direction, for a total of 18 individual shocks Tested on three axes X, Y, Z
	<b>Shock test</b>	Half sine wave shock 30 g / 11 ms Three tests for each axis, in positive and negative direction, for a total of 18 individual shocks Tested on three axes X, Y, Z
	<b>Sine test (old procedure)</b>	0 ÷ 63 Hz; 0,7 ÷ 6 g
	<b>Shock test (old procedure)</b>	Shock 50 g; impact time 11 ms

Ingress Protection:

**IP66 / IP67**

EMC:

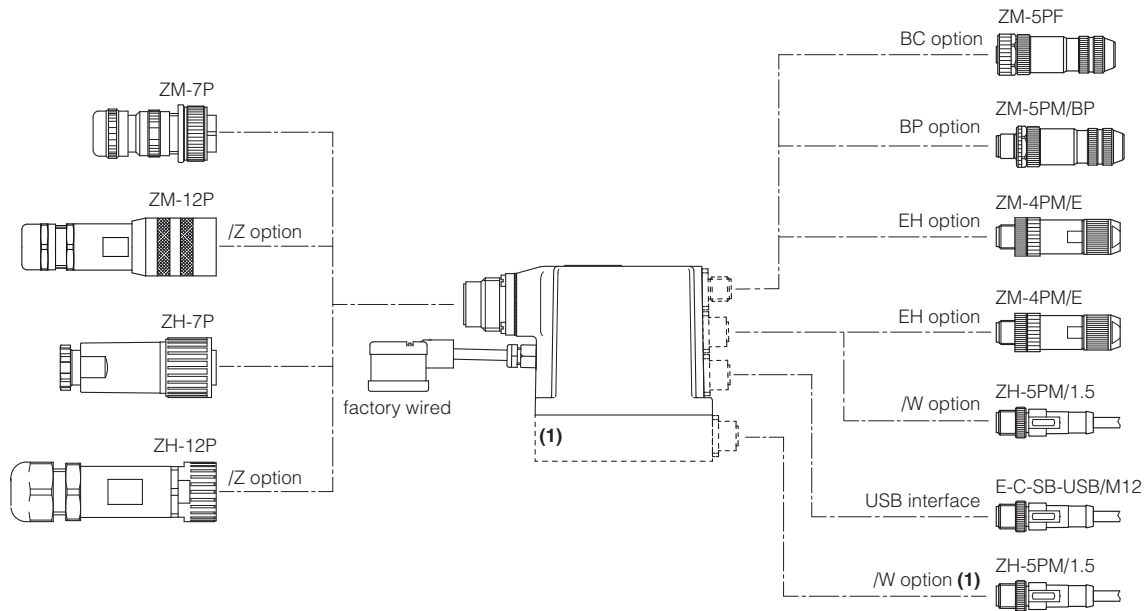


Temperature:

Ambient **-40°C ÷ +60°C**

Storage **-40°C ÷ +70°C**

Mechanical Resistance:



**Notes:**

- above data refer to the electronics only and may differ from those indicated in the technical table of the valve, which shows complete product data
- the use of metallic connectors is strongly recommended in order to fulfill EMC requirements
- **(1)** only for EH execution

Directional valves:

- DHZO-AE\*** technical table FS160
- DKZOR-AE\*** technical table FS160
- DPZO-AE\*** technical table FS170

Pressure valves:

- RZMO-AE\*-010** technical table FS007
- RZMO-AE\*-030** technical table FS065
- AGMZO-AE\*** technical table FS035
- RZGO-AE\*-010** technical table FS015
- RZGO-AE\*-033** technical table FS070
- AGRCZO-AE\*** technical table FS050
- LICZO-AE\*** technical table FS300
- LIMZO-AE\*** technical table FS300
- LIRZO-AE\*** technical table FS300
- DHRZO-AE\*** technical table FS025

Flow valves:

- QVHZO-AE\*** technical table FS410
- QVKZOR-AE\*** technical table FS410

Ingress Protection:

**IP66 / IP67**

EMC:

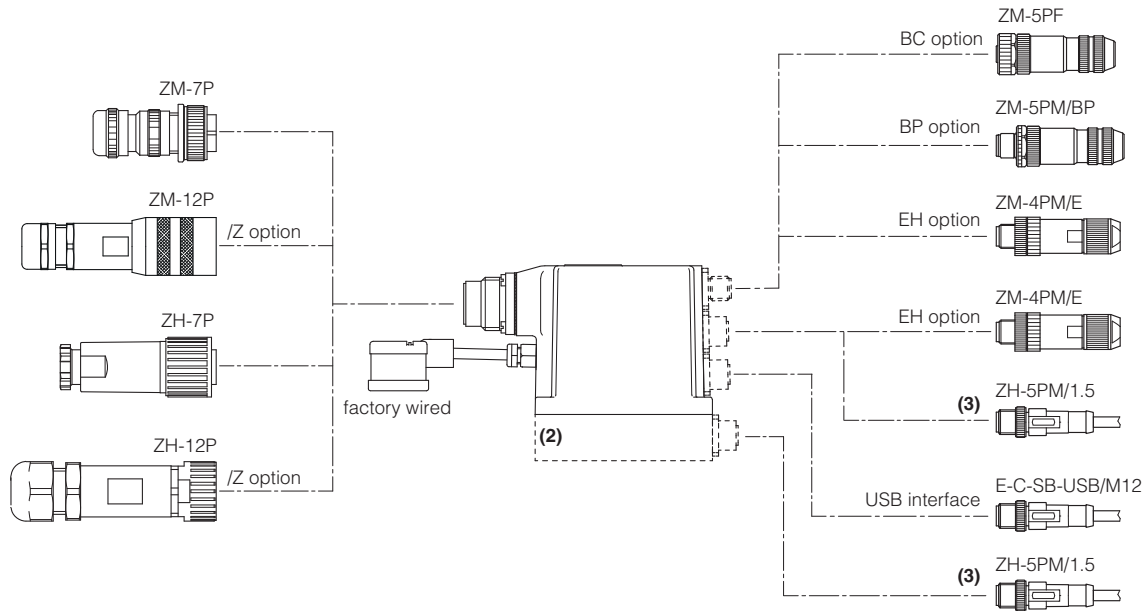


Temperature:

Ambient **-40°C ÷ +60°C**

Storage **-40°C ÷ +70°C**

Mechanical Resistance:



**Notes:**

- above data refer to the electronics only and may differ from those indicated in the technical table of the valve, which shows complete product data
- the use of metallic connectors is strongly recommended in order to fulfill EMC requirements
- (2) only for EH execution
- (3) remote pressure transducer connector available only for REB-N and RES-N (see tech. table TFS100)

High performance pressure valves:

- RZMO-RE\*-010** technical table FS010
- RZMO-RE\*-030** technical table FS067
- AGMZO-RE\*** technical table FS040
- RZGO-RE\*-010** technical table FS020
- RZGO-RE\*-033** technical table FS075
- AGRCZO-RE\*** technical table FS055
- LICZO-RE\*** technical table FS305
- LIMZO-RE\*** technical table FS305
- LIRZO-RE\*** technical table FS305

High performance pressure valves, with remote pressure transducer:

- RZMO-RE\*-N** technical table TFS100
- AGMZO-RE\*-N** technical table TFS100
- LIMZO-RE\*-N** technical table TFS100
- LICZO-RE\*-N** technical table TFS100

Ingress Protection:

**IP66 / IP67**

EMC:

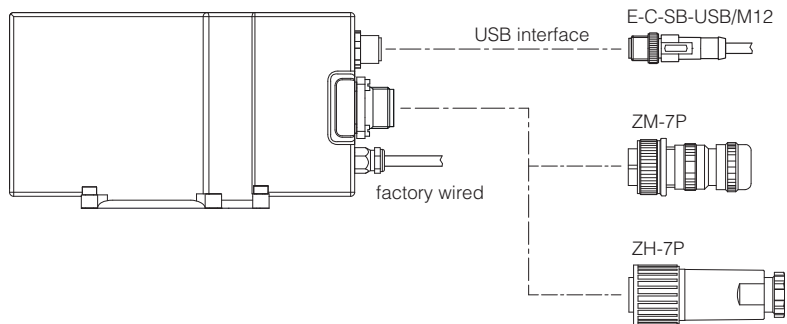
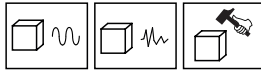


Temperature:

Ambient **-40°C ÷ +60°C**

Storage **-40°C ÷ +70°C**

Mechanical Resistance:



**Notes:**

- above data refer to the electronics only and may differ from those indicated in the technical table of the valve, which shows complete product data
- the use of metallic connectors is strongly recommended in order to fulfill EMC requirements

High performance directionals:

**DHZE-TID** technical table TFS150

**DKZE-TID** technical table TFS150

**DPZE-TID** technical table TFS170

Ingress Protection:

**IP66 / IP67**

EMC:

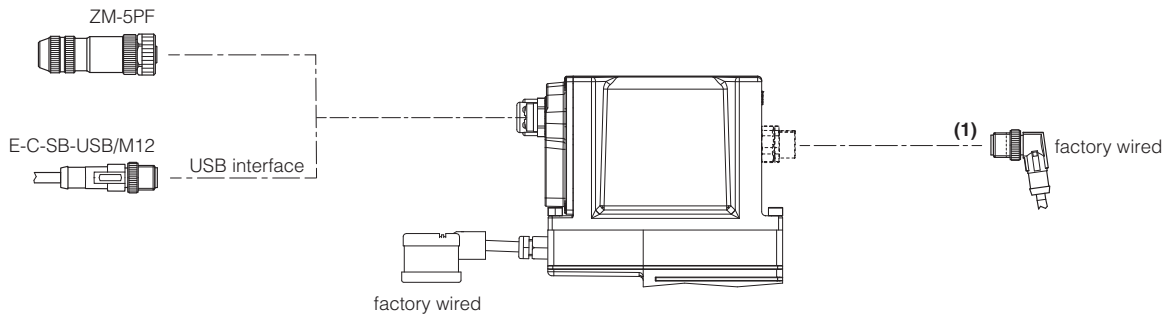


Temperature:

Ambient **-40°C ÷ +60°C**

Storage **-40°C ÷ +70°C**

Mechanical Resistance:



**Notes:**

- above data refer to the electronics only and may differ from those indicated in the technical table of the valve, which shows complete product data
- the use of metallic connectors is strongly recommended in order to fulfill EMC requirements
- **(1)** only for piloted valves

Servoproportional directionals **(2)**:

**DLHZO-TEB** technical table FS180  
**DLKZOR-TEB** technical table FS180  
**DHZO-TEB** technical table FS168  
**DKZOR-TEB** technical table FS168  
**DPZO-LEB** technical table FS178  
**LIQZP-LEB** technical table FS340

High performance directionals **(2)**:

**DHZO-TEB** technical table FS165  
**DKZOR-TEB** technical table FS165  
**DPZO-TEB** technical table FS172  
**DPZO-LEB** technical table FS175  
**LIQZP-LEB** technical table FS330

Flow valves:

**QVHZO-TEB** technical table FS412  
**QVKZOR-TEB** technical table FS412

**(2)** LIQZP has replaced LIQZO

Ingress Protection:

**IP66 / IP67**

Temperature:

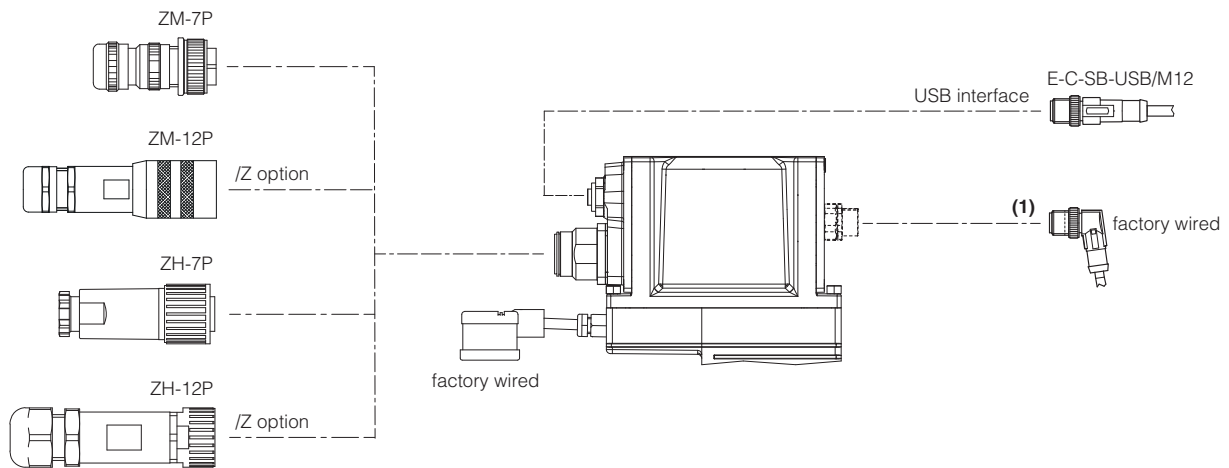
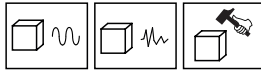
Ambient **-40°C ÷ +60°C**

Storage **-40°C ÷ +70°C**

EMC:



Mechanical Resistance:



**Notes:**

- above data refer to the electronics only and may differ from those indicated in the technical table of the valve, which shows complete product data
- the use of metallic connectors is strongly recommended in order to fulfill EMC requirements
- (1) only for piloted valves

Servoproportional directionals (2):

- DLHZO-TEB** technical table FS180
- DLKZOR-TEB** technical table FS180
- DHZO-TEB** technical table FS168
- DKZOR-TEB** technical table FS168
- DPZO-LEB** technical table FS178
- LIQZP-LEB** technical table FS340

High performance directionals (2):

- DHZO-TEB** technical table FS165
- DKZOR-TEB** technical table FS165
- DPZO-TEB** technical table FS172
- DPZO-LEB** technical table FS175
- LIQZP-LEB** technical table FS330
- LIQZP-TEB** technical table TFS325
- LIQZH-LEB** technical table TFS330

Flow valves:

- QVHZO-TEB** technical table FS412
- QVKZOR-TEB** technical table FS412

(2) LIQZP has replaced LIQZO

Ingress Protection:

**IP66 / IP67**

Temperature:

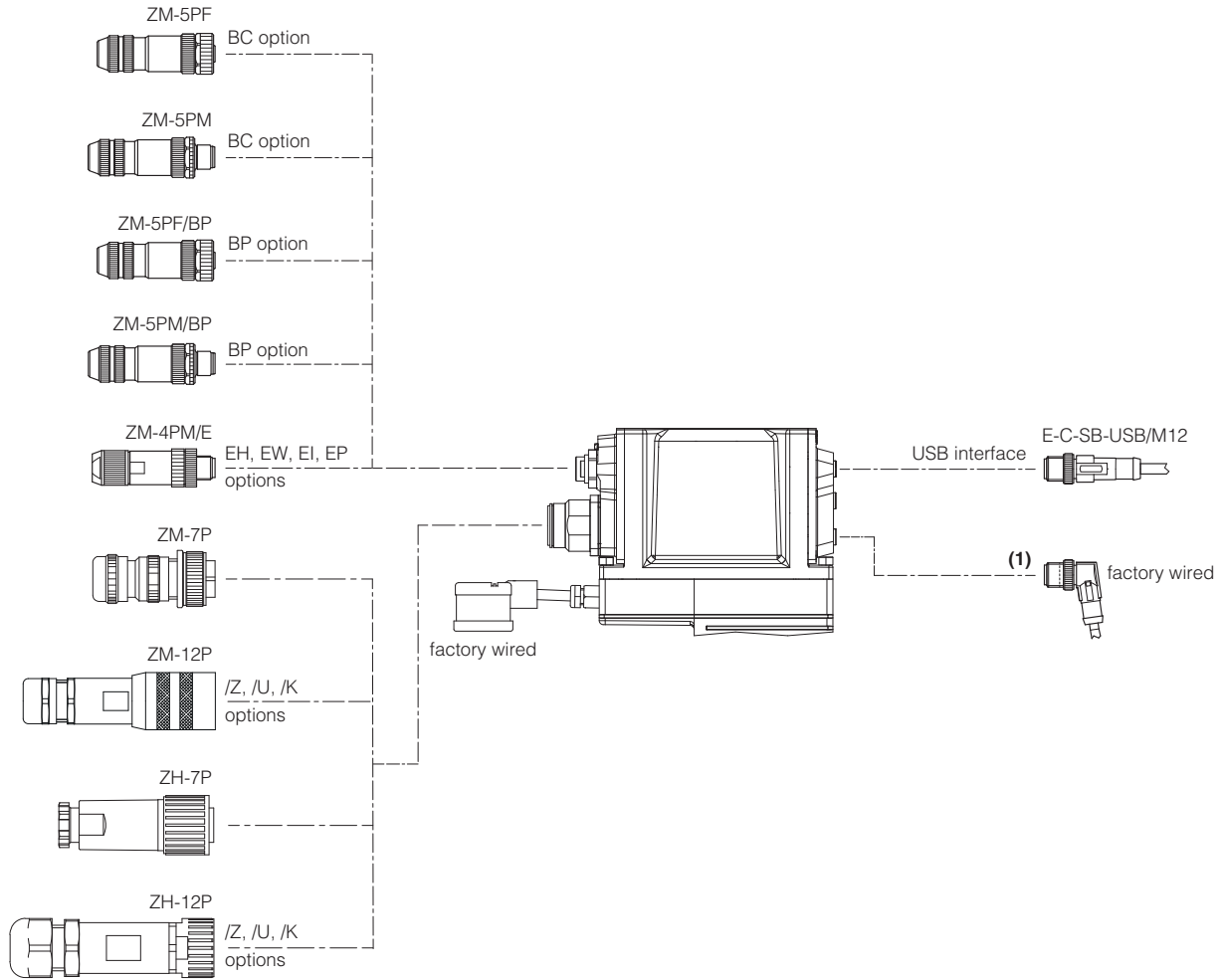
Ambient **-40°C ÷ +60°C**

Storage **-40°C ÷ +70°C**

EMC:



Mechanical Resistance:



**Notes:**

- above data refer to the electronics only and may differ from those indicated in the technical table of the valve, which shows complete product data
- the use of metallic connectors is strongly recommended in order to fulfill EMC requirements
- (1) only for piloted valves

Servoproportional directionals (2):

- DLHZO-LES** technical table FS180
- DLKZOR-LES** technical table FS180
- DHZO-LES** technical table FS168
- DKZOR-LES** technical table FS168
- DPZO-LES** technical table FS178
- LIQZP-LES** technical table FS340

High performance directionals (2):

- DHZO-LES** technical table FS165
- DKZOR-LES** technical table FS165
- DPZO-LES** technical table FS172
- DPZO-LES** technical table FS175
- LIQZP-LES** technical table FS330
- LIQZH-LES** technical table TFS330

Flow valves:

- QVHZO-LES** technical table FS412
- QVKZOR-LES** technical table FS412

(2) LIQZP has replaced LIQZO

Ingress Protection:

**IP66 / IP67**

EMC:

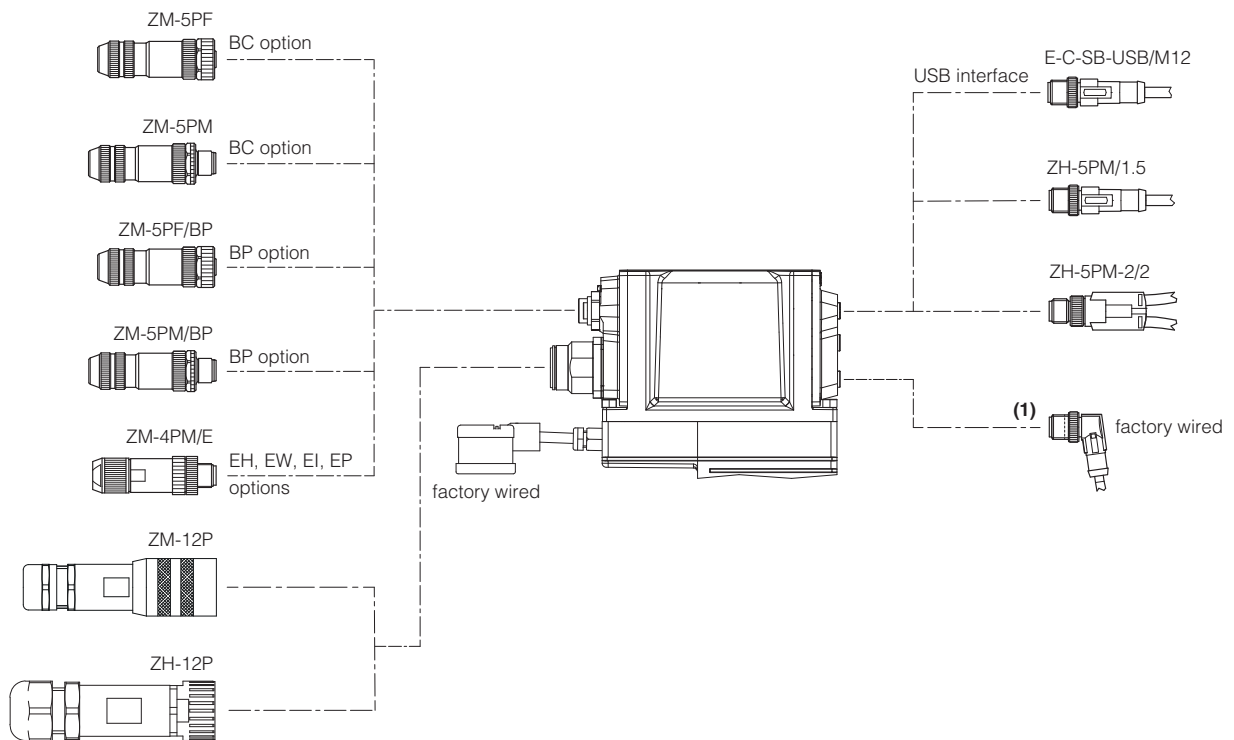
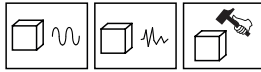


Temperature:

Ambient **-40°C ÷ +60°C**

Storage **-40°C ÷ +70°C**

Mechanical Resistance:



**Notes:**

- above data refer to the electronics only and may differ from those indicated in the technical table of the valve, which shows complete product data
- the use of metallic connectors is strongly recommended in order to fulfill EMC requirements
- (1) only for piloted valves

Servoproportional directionals, with P/Q controls (2):

- DLHZO-TES** technical table FS180
- DLKZOR-TES** technical table FS180
- DHZO-TES** technical table FS168
- DKZOR-TES** technical table FS168
- DPZO-LES** technical table FS178
- LIQZP-LES** technical table FS340

High performance directionals, with P/Q controls:

- DHZO-TES** technical table FS165
- DKZOR-TES** technical table FS165
- DPZO-LES** technical table FS175

(2) LIQZP has replaced LIQZO



Ingress Protection:

**IP66 / IP67**

Temperature:

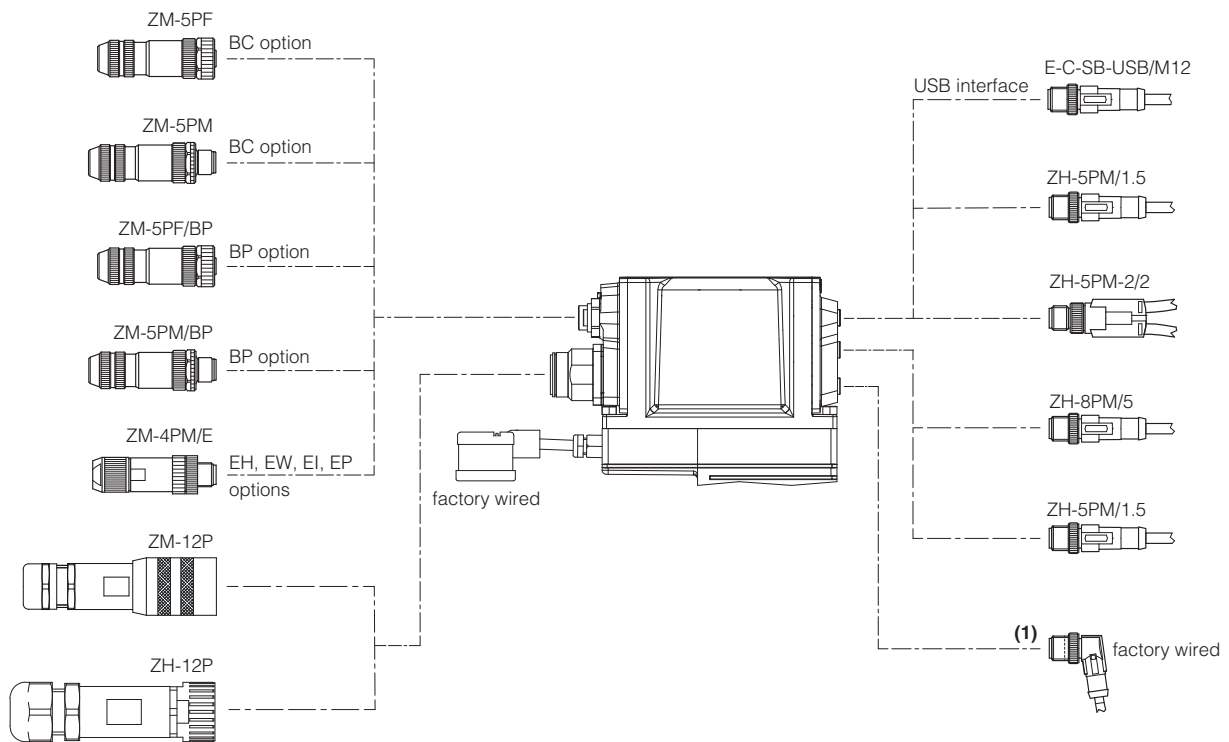
Ambient **-40°C ÷ +60°C**

Storage **-40°C ÷ +70°C**

EMC:



Mechanical Resistance:



**Notes:**

- above data refer to the electronics only and may differ from those indicated in the technical table of the valve, which shows complete product data
- the use of metallic connectors is strongly recommended in order to fulfill EMC requirements
- **(1)** only for piloted valves

Axis controls:

- DLHZO-TEZ** technical table FS610
- DLKZOR-TEZ** technical table FS610
- DHZO-TEZ** technical table FS620
- DKZOR-TEZ** technical table FS620
- DPZO-LEZ** technical table FS630

Ingress Protection:

**IP66 / IP67**

Temperature:

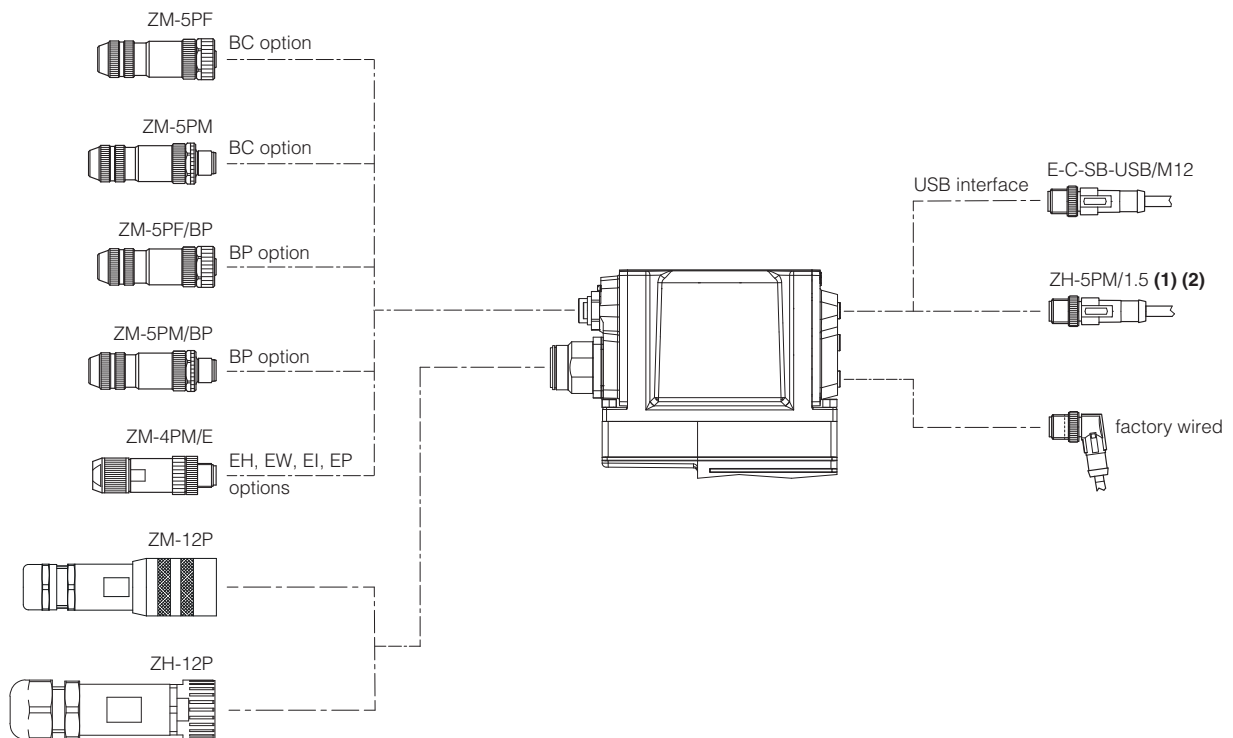
Ambient **-40°C ÷ +60°C**

Storage **-40°C ÷ +70°C**

EMC:



Mechanical Resistance:



**Notes:**

- above data refer to the electronics only and may differ from those indicated in the technical table of the valve, which shows complete product data
- the use of metallic connectors is strongly recommended in order to fulfill EMC requirements
- **(1)** only for /S, /X and /SX options
- **(2)** factory wired for /X and /SX options

Variable displacement pumps:


**PVPC-PES** technical table AS170


**PVPC-PERS** technical table AS170

**13 E-BM-AS** off-board drivers

Ingress Protection:  
**IP20**

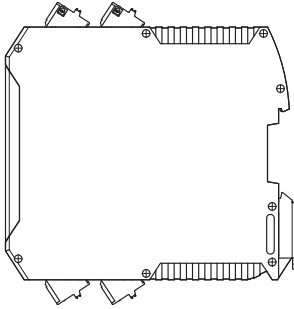
Temperature (1):  
Ambient **-20°C ÷ +60°C**  
Storage **-25°C ÷ +85°C**

EMC:  


Mechanical Resistance:  


(1) Ambient temperature for 05H version used for two single solenoid valves: -20°C ÷ +40°C


Electronics drivers:  
**E-BM-AS** technical table G030

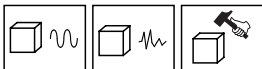


**14 E-BM-AES, E-BM-RES** off-board drivers

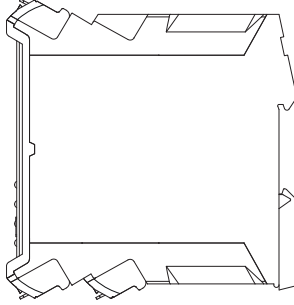
Ingress Protection:  
**IP20**

Temperature:  
Ambient **-20°C ÷ +60°C**  
Storage **-25°C ÷ +85°C**

EMC:  


Mechanical Resistance:  



Electronics drivers:  
**E-BM-AES** technical table GS050  
**E-BM-RES** technical table GS203

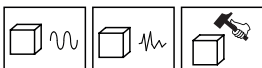


**15 E-BM-TEB/LEB, E-BM-TES/LES, E-BM-TID/LID** off-board drivers

Ingress Protection:  
**IP20**

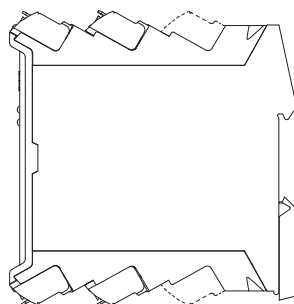
Temperature (1):  
Ambient **-20°C ÷ +60°C**  
Storage **-25°C ÷ +85°C**

EMC:  


Mechanical Resistance:  


(1) Ambient temperature for TES/LES: -20°C ÷ +50°C

Electronics drivers:  
**E-BM-TEB/LEB** technical table GS230  
**E-BM-TES/LES** technical table GS240  
**E-BM-TID/LID** technical table GS235 - phase-out



**16 Z-BM-TEZ/LEZ, Z-BM-KZ** off-board axis cards

Ingress Protection:

**IP20**

Temperature:

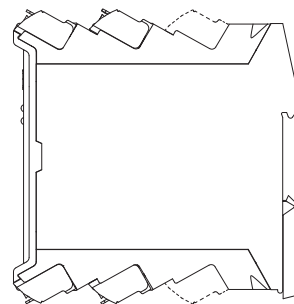
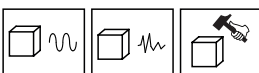
Ambient **-20°C ÷ +50°C**

Storage **-25°C ÷ +85°C**

EMC:



Mechanical Resistance:



Electronics axis controls:

**Z-BM-TEZ/LEZ** technical table GS330

**Z-BM-KZ** technical table GS340

**17 E-MI-AC** plug-in drivers

Ingress Protection:

**IP65**

Temperature:

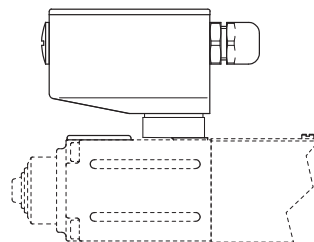
Ambient **0°C ÷ +50°C**

Storage **-20°C ÷ +70°C**

EMC:



Mechanical Resistance:



Electronics drivers:

**E-MI-AC** technical table G010

**18 E-MI-AS-IR** plug-in drivers

Ingress Protection:

**IP65**

Temperature:

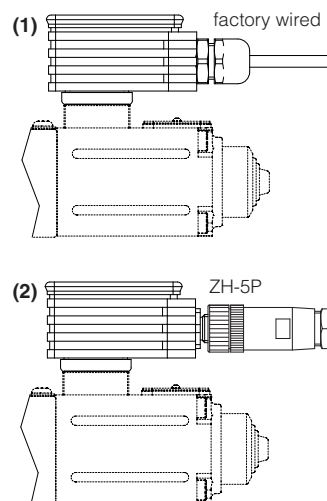
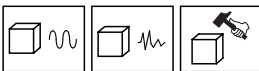
Ambient **-20°C ÷ +50°C**

Storage **-25°C ÷ +85°C**

EMC:



Mechanical Resistance:



Electronics drivers:

**E-MI-AS-IR** technical table G020

(1) Standard version - with 5 m cable

(2) /M12 option - with 5 poles M12 connector

**19 E-THTZE-4** LVDT transducers

Ingress Protection:

**IP66 / IP67**

EMC:

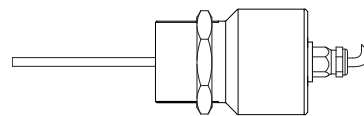
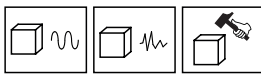


Temperature:

Ambient **-40°C ÷ +60°C**

Storage **-40°C ÷ +70°C**

Mechanical Resistance:



**Note:** above data refer to the transducer only and may differ from those indicated in the technical table of the valve, which shows complete product data

High performance directionals:

**DHZE-TID** technical table TFS150

**DKZE-TID** technical table TFS150

**20 E-THT-4** LVDT transducers

Ingress Protection:

**IP66 / IP67**

EMC:

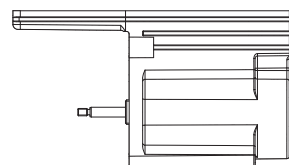


Temperature:

Ambient **-40°C ÷ +60°C**

Storage **-40°C ÷ +70°C**

Mechanical Resistance:



**Note:** above data refer to the transducer only and may differ from those indicated in the technical table of the valve, which shows complete product data

Servoproportional directionals **(1) (2)**:

- DLHZO-TE\*** technical table FS180
- DLKZOR-TE\*** technical table FS180
- DHZO-TE\*** technical table FS168
- DKZOR-TE\*** technical table FS168
- DPZO-LE\*** technical table FS178
- LIQZP-LE\*** technical table FS340

High performance directionals **(1) (2)**:

- DHZO-TE\*** technical table FS165
- DKZOR-TE\*** technical table FS165
- DPZO-LE\*** technical table FS175
- LIQZP-LE\*** technical table FS330
- LIQZH-LE\*** technical table TFS330

Axis controls **(1)**:

- DLHZO-TEZ** technical table FS610
- DLKZOR-TEZ** technical table FS610
- DHZO-TEZ** technical table FS620
- DKZOR-TEZ** technical table FS620
- DPZO-LEZ** technical table FS630

Flow valves:

- QVHZO-TE\*** technical table FS412
- QVKZOR-TE\*** technical table FS412

Variable displacement pumps:

- PVPC-PES** technical table AS170
- PVPC-PERS** technical table AS170

**(1)** For DPZO and LIQZP the E-THT-4 transducer is used for pilot stage **(2)** LIQZP has replaced LIQZO

**21 4-ETH** LVDT transducers

Ingress Protection:

**IP65**

EMC:



Temperature:

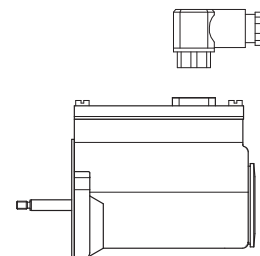
Ambient **-40°C ÷ +60°C**

Storage **-40°C ÷ +70°C**

Mechanical Resistance:



345



**Note:** above data refer to the transducer only and may differ from those indicated in the technical table of the valve, which shows complete product data

Servoproportional directionals **(1) (2)**:

- DLHZO-T** technical table F180
- DLKZOR-T** technical table F180
- DHZO-T** technical table F168
- DKZOR-T** technical table F168
- DPZO-L** technical table F178
- LIQZP-L** technical table F340

High performance directionals **(1) (2)**:

- DHZO-T** technical table F165
- DKZOR-T** technical table F165
- DPZO-L** technical table F175
- LIQZP-L** technical table F330

Flow valves:

- QVHZO-T** technical table F412
- QVKZOR-T** technical table F412

**(1)** For DPZO and LIQZP the 4-EHT transducer is used the pilot stage **(2)** LIQZP has replaced LIQZO

**22 E-THT-8/M12** LVDT transducers

Ingress Protection:

**IP66 / IP67**

Temperature:

Ambient **-40°C ÷ +60°C**

Storage **-40°C ÷ +70°C**

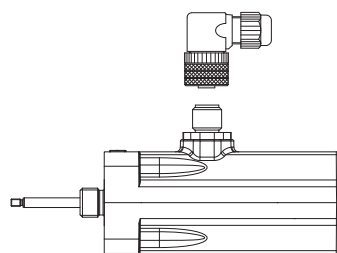
EMC:



Mechanical Resistance:



ZBE-08



**Note:** above data refer to the transducer only and may differ from those indicated in the technical table of the valve, which shows complete product data

Servoproportional directionals:

**DPZO-L** technical table F178

**LIQZP-L** size **25 ÷ 40** tech. table F340

High performance directionals:

**DPZO-L** technical table F175

**DPZO-T** technical table F172

**LIQZP-L** size **16 ÷ 40** tech. table F330

**23 E-THT-8/P\*\*** LVDT transducers

Ingress Protection:

**IP66 / IP67**

Temperature:

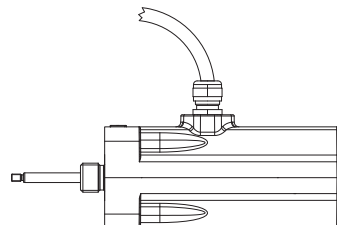
Ambient **-40°C ÷ +60°C**

Storage **-40°C ÷ +70°C**

EMC:



Mechanical Resistance:



**Note:** above data refer to the transducer only and may differ from those indicated in the technical table of the valve, which shows complete product data

Servoproportional directionals:

**DPZO-LE\*** size **1 ÷ 6** tech. table FS178

**LIQZP-LE\*** size **25 ÷ 40** tech. table FS340

High performance directionals:

**DPZO-LE\*** size **1 ÷ 6** tech. table FS175

**LIQZP-LE\*** size **16 ÷ 40** tech. table FS330

**LIQZP-TEB** size **16 ÷ 40** tech. table TFS325

Axis controls:

**DPZO-LEZ** technical table FS630

**24 E-THT-8/TID** LVDT transducers

Ingress Protection:

**IP66 / IP67**

Temperature:

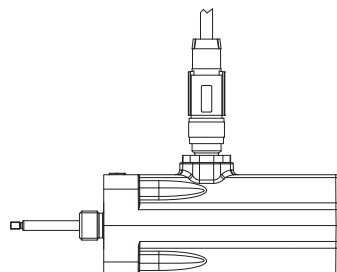
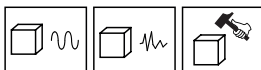
Ambient **-40°C ÷ +60°C**

Storage **-40°C ÷ +70°C**

EMC:



Mechanical Resistance:



**Note:** above data refer to the transducer only and may differ from those indicated in the technical table of the valve, which shows complete product data


High performance directionals:


**DPZE-TID** technical table TFS170

**25 E-THT-15 LVDT transducers**

Ingress Protection:  
**IP66 / IP67**

Temperature:  
 Ambient **-40°C ÷ +60°C**  
 Storage **-40°C ÷ +70°C**

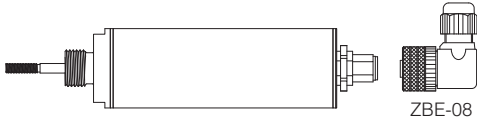
EMC:  


Mechanical Resistance:  


**Note:** above data refer to the transducer only and may differ from those indicated in the technical table of the valve, which shows complete product data

Servoproportional directionals:  
**LIQZP-LE\*** size **50 ÷ 80** tech. table FS340  
**LIQZP-L** size **50 ÷ 80** tech. table F340

High performance directionals:  
**LIQZP-LE\*** size **50 ÷ 100** tech. table FS330  
**LIQZP-L** size **50 ÷ 100** tech. table F330  
**LIQZP-TEB** size **50 ÷ 100** tech. table TFS325  
**LIQZH-LE\*** size **32 ÷ 100** tech. table TFS330




ZBE-08

**26 E-THT-50-MTS magnetostrictive linear position transducers**

Ingress Protection:  
**IP67**

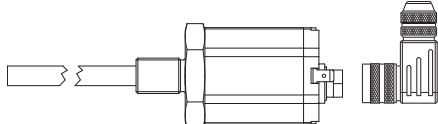
Temperature:  
 Ambient **-40°C ÷ +80°C**

EMC:  


Mechanical Resistance:  
**Shock: IEC Standard 60068-2-27**  
**Vibration: IEC Standard 60068-2-27**  
**15 g / 10 ÷ 2000 Hz**  
**(resonance frequencies excluded)**

**Note:** above data refer to the transducer only and may differ from those indicated in the technical table of the valve, which shows complete product data

High performance directionals:  
**LIQZP-LE\*** size **125** technical table FS330  
**LIQZP-L** size **125** technical table F330



STCO9131-6-PG9

Ingress Protection:

**IP67**

Temperature:

Ambient **-40°C ÷ +100°C**

Storage **-40°C ÷ +100°C**

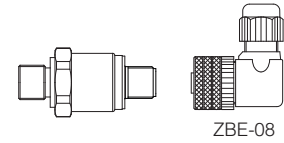
EMC:

**EN 61326 emission (group 1, class B) and interference immunity (industrial application)**

Mechanical Resistance:

**Shock: DIN EN 60068-2-27  
40 g / 6 ms / half sinusoid**

**Vibration: DIN EN 60068-2-6  
20 g / 20 ÷ 2000 Hz**



ZBE-08

**Note:** above data refer to the transducer only and may differ from those indicated in the technical table of the valve, which shows complete product data

Accessories:

**E-ATR-8** technical table GS465

Variable displacement pumps **(1)**:

**PVPC-PES** technical table AS170

**PVPC-PERS** technical table AS170

**(1)** only for /X and /SX options

Ingress Protection:

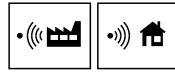
**IP66 / IP67**

Temperature:

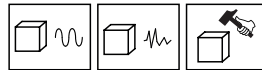
Ambient **-40°C ÷ +100°C**

Storage **-40°C ÷ +100°C**

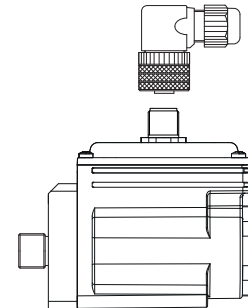
EMC:



Mechanical Resistance:



ZBE-08



valves **R**  
(off-board drivers)

**Note:** above data refer to the transducer only and may differ from those indicated in the technical table of the valve, which shows complete product data

High performance pressure valves:

**RZMO-R\*-010** technical table FS010

**RZMO-R\*-030** technical table FS067

**AGMZO-R\*** technical table FS040

**RZGO-R\*-010** technical table FS020

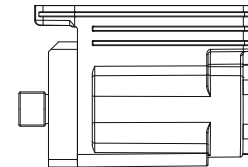
**RZGO-R\*-033** technical table FS075

**AGRCZO-R\*** technical table FS055

**LICZO-R\*** technical table FS305

**LIMZO-R\*** technical table FS305

**LIRZO-R\*** technical table FS305



valves **REB** and **RES**  
(on-board drivers)



**28 E-THT-FV-10** inductive position switches

Ingress Protection:

**IP66 / IP67**

Temperature:

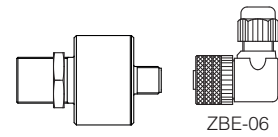
Ambient **-40°C ÷ +60°C**

Storage **-40°C ÷ +70°C**

EMC:



Mechanical Resistance:



**Note:** above data refer to the transducer only and may differ from those indicated in the technical table of the valve, which shows complete product data

Safety on-off directionals, single solenoid valves **(1)**:

**DHI-06** technical table EY010

**DHE-06** technical table EY010

**DKE-16** technical table EY010

**HF-0611** technical table EY050

**HF-0614** technical table EY050

**HF-0673** technical table EY050

**JO-DL** technical table EY105

**DPHE** technical table EY030

**LIDA** technical table EY120

**LIDAS** technical table EY120

**LIDASH** technical table EY120

**(1)** only for /FV option

**29 E-THT-FV-20** inductive position switches

Ingress Protection:

**IP66 / IP67**

Temperature:

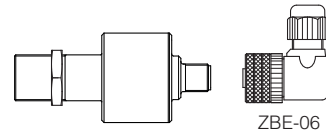
Ambient **-40°C ÷ +60°C**

Storage **-40°C ÷ +70°C**

EMC:



Mechanical Resistance:



**Note:** above data refer to the transducer only and may differ from those indicated in the technical table of the valve, which shows complete product data

Safety on-off directional, double solenoid valves **(1)**:

**DHE-07** technical table EY010

**DKE-17** technical table EY010

**(1)** only for /FV option

Ingress Protection:

**IP67**

EMC:

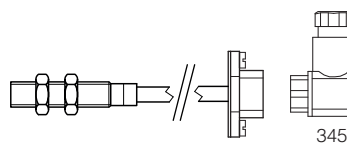
**IEC 61000-4-2 level 2**  
**IEC 61000-4-3 level 3**  
**IEC 61000-4-4 level 2**

Temperature:

Ambient **-25°C ÷ +70°C**

Mechanical Resistance:

**IEC 60947-5-2 / 7.4**



**Note:** above data refer to the transducer only and may differ from those indicated in the technical table of the valve, which shows complete product data

Safety on-off directionals valves **(1)**:

- DHI-06** technical table EY010
- DHI-07** technical table EY010
- DHE-06** technical table EY010
- DHE-07** technical table EY010
- DKE-16** technical table EY010
- DKE-17** technical table EY010

**(1)** only for /FI option

Ingress Protection:

**IP68**

EMC:

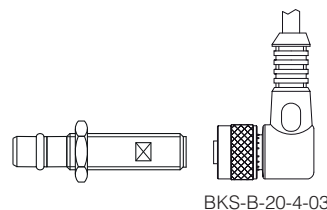
**IEC 61000-4-2 level 2**  
**IEC 61000-4-3 level 3**  
**IEC 61000-4-4 level 3**

Temperature:

Ambient **-25°C ÷ +70°C**

Mechanical Resistance:

**Shock: EN 60068-2-27**  
**Half-sinus, 30 gn, 11 ms**  
**Vibration: EN 60068-2-6**  
**55 Hz, amplitude 1 mm, 3x30 min**



**Note:** above data refer to the transducer only and may differ from those indicated in the technical table of the valve, which shows complete product data


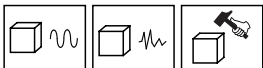
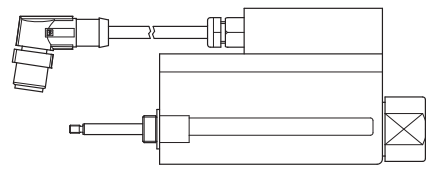
Safety on-off directionals valves **(1)**:

- LIFI** technical table EY120
- LIDA** technical table TEY120
- LIDASH** technical table TEY120


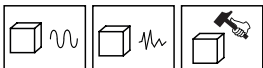
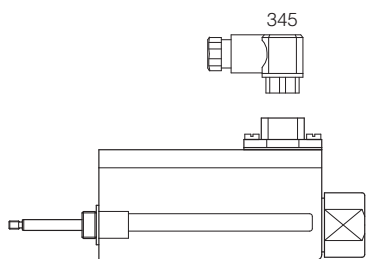
**(1)** only for /FI option

**31** OBSOLETE LVDT TRANSDUCERS

**31.1 8-ETHR LVDT transducers**

<p>Ingress Protection: <b>IP66 / IP67</b></p> <p>Temperature: Ambient <b>-40°C ÷ +60°C</b> Storage <b>-40°C ÷ +70°C</b></p> <p><b>Note:</b> above data refer to the transducer only and may differ from those indicated in the technical table of the valve, which shows complete product data</p> <p>Servoproportional directionals: <b>DPZO-LE* size 8</b> <b>LIQZO-LE*</b></p>	<p>EMC: </p> <p>Mechanical Resistance: </p>	<p>High performance directionals: <b>DPZO-LE* size 8</b> <b>LIQZO-LE*</b> <b>LIQZO-TEB</b></p> <p>Axis controls: <b>DPZO-LEZ</b></p> 
---	---	---

**31.2 8-ETH LVDT transducers**

<p>Ingress Protection: <b>IP66 / IP67</b></p> <p>Temperature: Ambient <b>-40°C ÷ +60°C</b> Storage <b>-40°C ÷ +70°C</b></p> <p><b>Note:</b> above data refer to the transducer only and may differ from those indicated in the technical table of the valve, which shows complete product data</p> <p>Servoproportional directionals: <b>DPZO-LE* size 1 to 6</b> <b>DPZO-L</b> <b>LIQZO-L</b></p>	<p>EMC: </p> <p>Mechanical Resistance: </p>	<p>High performance directionals: <b>DPZO-LE* size 1 to 6</b> <b>DPZO-L</b> <b>DPZO-TE*</b> <b>DPZO-T</b> <b>LIQZO-L</b></p> 
--	---	---