

W - 2.55

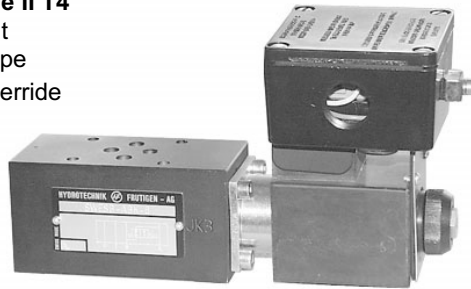
2/2 Seat Valves in size 3 Stack Body Direct Acting for Explosion-hazard Areas

Series EEx-SWESB ...

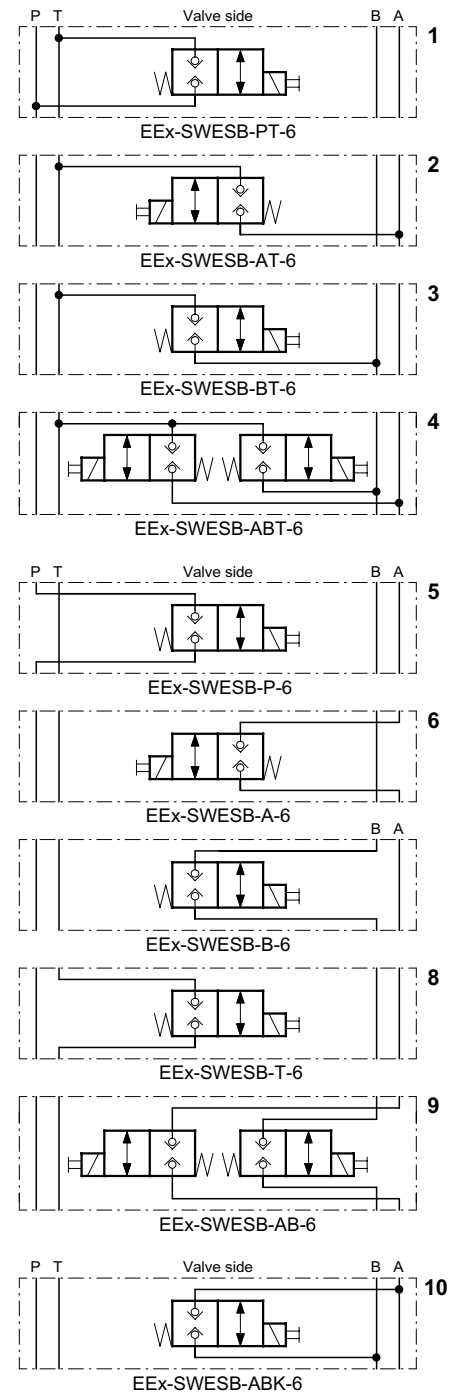
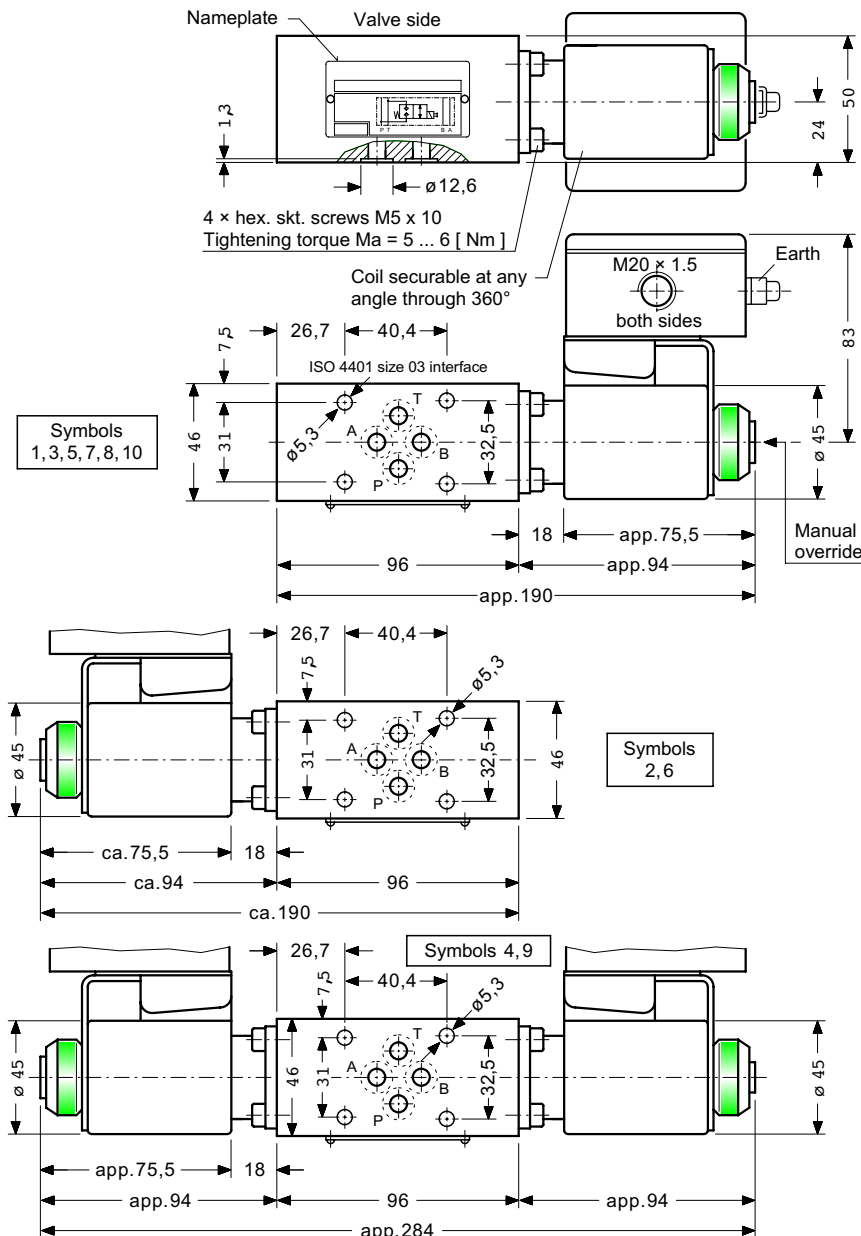
ISO 4401/CETOP R35H size 03
NFFA D03, DIN 24 340 A6

20 l/min, 315 bar

- With 2/2 cartridge seat valve W1C ...
- Bidirectional seat-valve closure / bidirectional flow
- Guided valve stem and cone
- Corner power: 20 l/min at 315 bar
- **EEx- classification: EEx me II T4**
- Coils can be changed without opening the hydraulic envelope
- **As standard** with manual override (option: without override)



DIMENSIONS



DESCRIPTION

The valve opens the connection between the relevant ports or closes it with near-zero seat valve leakage.

Flow can be in either direction when the valve is open and flow is prevented in both directions when it is closed.

These stack mounting valves are equipped with pressure-tight DC solenoids which are approved for use in explosion-hazard areas.

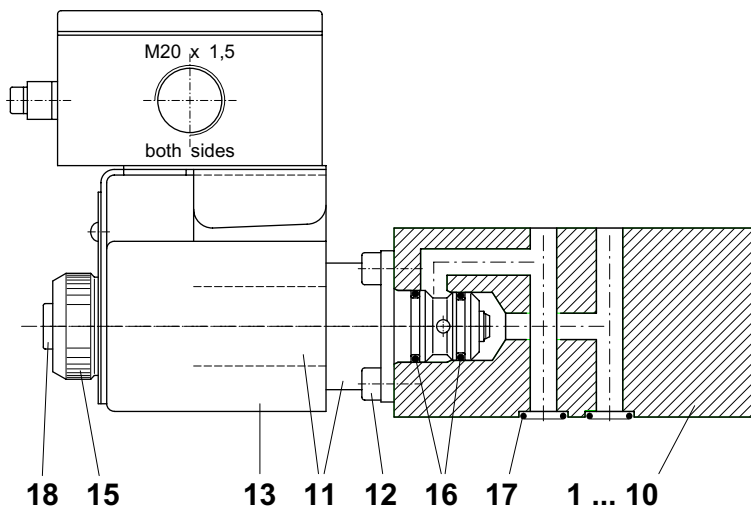
Coils can be changed in a few seconds and without opening the hydraulic envelope. Coils for AC power supplies have integral rectifiers.

2/2 solenoid directional valves are available 'deenergised closed' and with, or optionally without, manual override.

Sealing of the hydraulic interface is ensured by O-rings in counterbores in the valve body.

SCHEMATIC SECTION

showing the relevant ports



COMPONENTS / SERVICE PARTS

It.	Qty.	Description	▲ = available as service part
1	1	Body 46 x 50 x 96 type FL3-6 (.. PT ..)	
2	1	Body 46 x 50 x 96 type FJ3-6 (.. AT ..)	
3	1	Body 46 x 50 x 96 type FK3-6 (.. BT ..)	
4	- 1	Body 46 x 50 x 96 type JJ3-6 (.. ABT ..)	
5	1	Body 46 x 50 x 96 type EJ3-6 (.. P ..)	
6	1	Body 46 x 50 x 96 type AJ3-6 (.. A ..)	
7	1	Body 46 x 50 x 96 type BJ3-6 (.. B ..)	
8	1	Body 46 x 50 x 96 type HJ3-6 (.. T ..)	
9	- 1	Body 46 x 50 x 96 type JL3-6 (.. AB ..)	
10	1	Body 46 x 50 x 96 type JK3-6 (.. ABK ..)	
11	1	2/2 cartridge seat valve, type EEx-W1C..	
12	4	8 Hex. skt. screw M5 x 10 8.8 DIN 912	
13	1	2 EEx- solenoid coil ... VAC	
		2 EEx- solenoid coil ... VDC	
14			
15	1	2 Knurled nut EEx-W1 ø 29 x 16	
16	1	2 Seal kit no. DS-263 for cartridge W1C ...	
17	4	4 O-ring no. 012 ø 9,25 x 1,78 N90	
18	1	2 Manual override HN-H, complete 12 A/F x 14	

▲ Symbols 4 and 9
 ▲ Symbols 1 ... 3, 5 ... 8 and 10

INSTALLATION AND SERVICING

MUST BE CARRIED OUT WITH CARE, AND BY QUALIFIED PERSONNEL ONLY

When changing seals, the new seals should be thoroughly oiled or greased before fitting them to the valve.

When fitting the cartridge valve (after renewing the seals, for example) use the correct tightening torque for the hex. socket retaining screws, item 12.

TO ORDER SERVICE PARTS, STATE:

- complete unit model code from the nameplate, including the design number
- data sheet number, including issue date
- part item number from above list
- part description from above list
- quantity required

MAIN CHARACTERISTICS

Type	2/2 stack-mounting seat valve for explosion-hazard areas
Design	direct acting seat type
Mounting method	stack mounting
Size	ISO 4401 size 03, nominal 6 mm
Mass	1 solenoid: 2,60 kg 2 solenoids: 3,60 kg
Mounting attitude	unrestricted
Flow direction	see symbols
Operating pressure in P, A, B and T	... 315 bar at ... 1,200 cycles/hr. ... 210 bar at 1,000 ... 10,000 cycles/hr.
Switching power limits	to Q max. = 20 l/min and p = 315 bar
Fluids	hydraulic oils HL and HLP to DIN 51 524 other fluids - contact HTF
Min. fluid cleanliness	18/14 to ISO 4406 / CETOP RP70H 8 ... 9 to NAS 1638
Fluid temperature range	see "Apparatus Cert. No. Ex 89Y5111X"
Viscosity range	3 ... 300 cSt
Flow rate Q max.	20 l/min (see Δp -Q curves)

Electrical data for EEx-W1C ... -6 :

Solenoid type	EEx-classification	Voltage	Power rating	Standards
D 14	EEx me II T4	24 VDC	40 W	EN 50014
K 14 *)	EEx me II T4	230 VAC		EN 50019 EN 50028

Valves (and solenoids) are supplied **without** cable and **without** M20 x 1,5 cable gland.

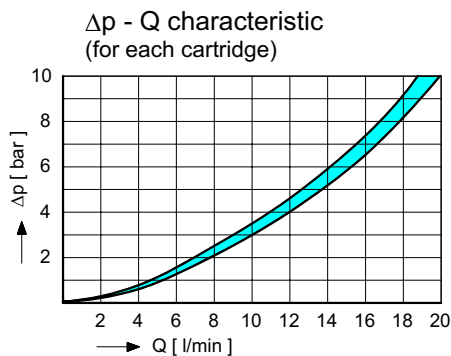
Suitable cable: min. \varnothing 6 / max. \varnothing 12, 3-core x 1,5 mm²

EEx- classification	EEx me II T4
Enclosure protection	IP 66
Standards	EN 50014 / 50019 / 50028
Solenoid	wet-armature type with core tube and slip-on coil
Nominal voltages	24 VDC 50 ... 60 Hz 230 VAC
Voltage tolerance	\pm 5 %
Max. core tube pressure	315 bar (static)
Duty cycle	100 %

The solenoid coils must be protected by a semi-delay fuse to DIN 41 571.

*) = with integral rectifier/varistor

PERFORMANCE DATA measured with oil viscosity 33 cSt solenoid at steady-state temperature 5 % under-voltage



SWITCHING TIMES

Solenoid ON	80 ... 220 ms
Solenoid OFF	10 ... 160 ms

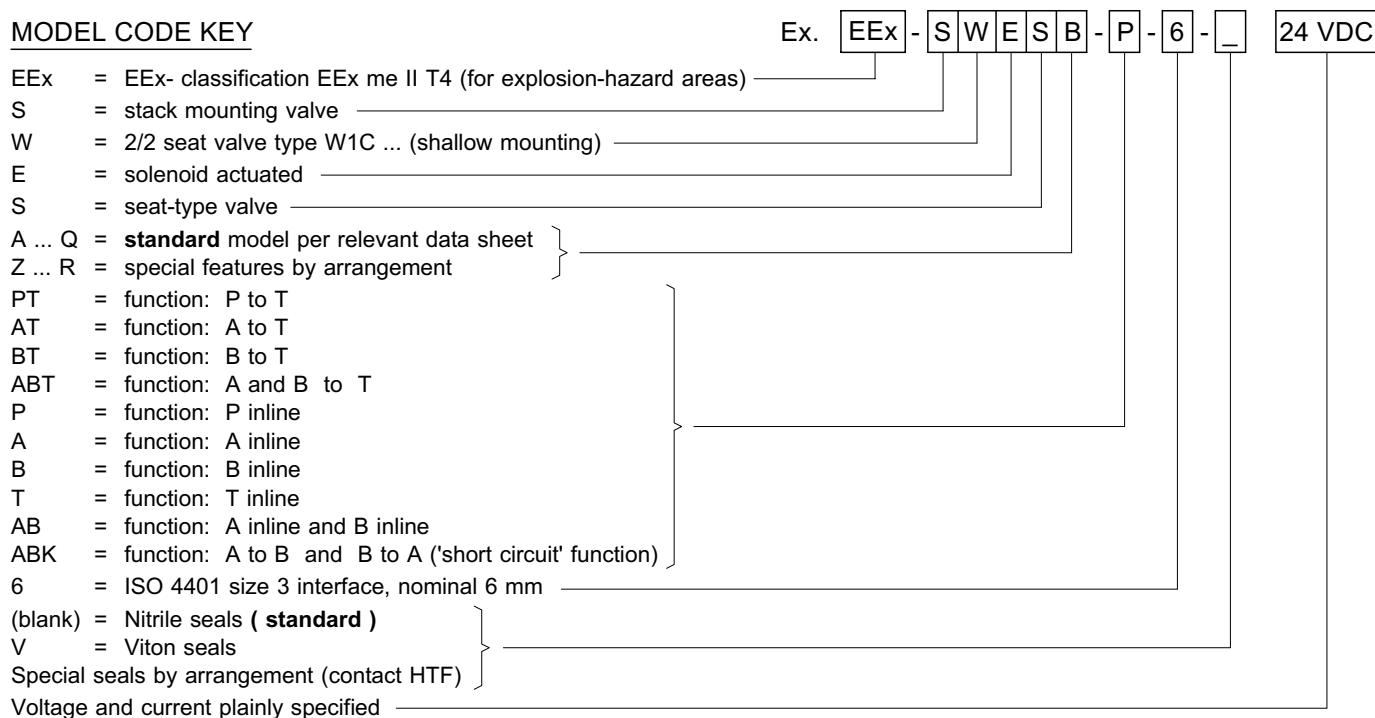
These times are strongly influenced by flow rate, pressure and viscosity, as well as by the dwell time under pressure.

Note on operational reliability

In accumulator systems, the user must ensure that the maximum permitted flow rate of 20 l/min is not exceeded in either flow direction. See also the orifice flow chart on data sheet i-01.

For all applications involving long dwell periods under pressure, please contact HTF

MODEL CODE KEY



RELATED DATA SHEETS

i - 01	Orifice flow chart
i - 32	Form tool hire programme for HTF cartridge cavities
i - 31	DIN 24 340 A6 interface
---	Apparatus Certificate No. Ex 89Y5111X
W - 2.20	Directional seat valves for explosion-hazard areas, solenoid actuated (overview)
W - 2.21	2/2 seat valves for explosion-hazard areas, solenoid actuated