



HENGSTLER
Encoders & Counters



WEST
Temperature Control Solutions
Temperature &
Process Control



STS
Pressure / Level
Monitoring
& Logging



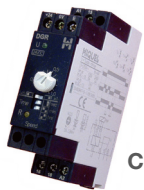
weber
Sensors Inc
Thermal Flow Sensing



FEAS
Power Supplies & Electronic Modules



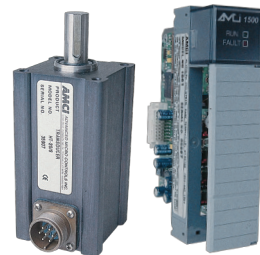
ASM
Linear & Angle
Measurement



HIQUEL
HIGH QUALITY ELECTRONICS
Control Relays & Devices



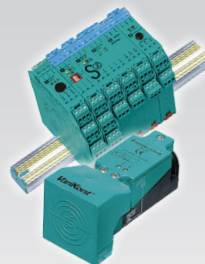
rittmeyer
BRUGG
Water & Energy Management



AMCI
Resolver Based
Positioning



MONITOUCH
Operator Interface Screens



PEPPERL+FUCHS
Automation Sensors & IS Barriers



CONDUCTIX
wampfler
DELACHAUX GROUP
Mobile Power &
Data Transmission



pulsar
PROCESS MEASUREMENT
Level & Flow
Measurement

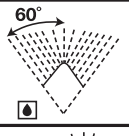
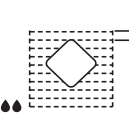
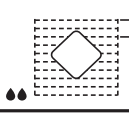


KIEPE
ELEKTRIK
Conveyor Control
& Monitoring

Flow Chart for Liquids

mN ₄ m	Velocity = 1 m/s m³/h l/min	Velocity = 2 m/s m³/h l/min	Velocity = 3 m/s m³/h l/min	Velocity = 4 m/s m³/h l/min
6	0,05	0,75	0,1	1,5
1	0,1	1,7	0,2	3,4
10	0,3	4,7	0,6	9,4
15	0,6	10,6	1,3	21,2
28	0,9	15,3	1,8	30,5
20	1,1	18,8	2,3	37,7
35	1,8	29,5	3,5	58,9
42	2,9	48,3	5,8	96,5
50	4,5	75,4	9,0	150,8
60	7,1	117,8	14,1	235,6
75	11,9	199,1	23,9	398,2
85	15,9	265,1	31,8	530,1
10	18,1	301,6	36,2	603,2
100	28,3	471,2	56,5	942,5
125	44,2	736,3	88,4	1472,6
250	63,6	1060,3	127,2	2120,6
200	113,1	1885,0	226,2	3769,9
350	176,7	2945,2	353,4	5890,5
300	245,5	4241,2	508,9	8482,3
450	346,4	5772,7	692,7	11545,4
500	452,4	7539,8	904,8	15079,6
600	706,9	11781,0	1413,7	23561,9
700	1017,9	16964,6	2035,8	33929,2
800	1385,4	23090,7	2770,9	46181,4
900	1809,6	30159,3	3619,1	60318,6
100	2290,2	38170,4	4580,4	76340,7
1000	2827,4	47123,9	5654,9	94247,8
1100	3421,2	57019,9	6842,4	114039,8
1200	4071,5	67858,4	8143,0	135716,8
2500	6361,7	106028,8	12723,5	212057,5
000	11309,7	188495,6	22619,5	376991,1

Ingress Protection (IP) Rating

1st Digit	Protection from solid objects	2nd Digit	Protection from moisture
0	Non protected	0	Non protected
1	 Protected against solid object greater than 50mm	1	 Protected against dripping water
2	 Protected against solid object greater than 12mm	2	 Protected against dripping water when tilted up to 15°
3	 Protected against solid object greater than 2.5mm	3	 Protected against spraying water
4	 Protected against solid object greater than 1.0mm	4	 Protected against splashing water
5	 Dust protected	5	 Protected against water jets
6	 Dust tight	6	 Protected against heavy seas
Note: EN 60529 does not specify sealing effectiveness against the following: mechanical damage of the equipment; the risk of explosions; certain types of moisture conditions, e.g. those that are produced by condensation; corrosive vapours; fungus; vermin		7	 Protected against the effects of immersion
		8	 Protected against submersion

AREA CLASSIFICATION

ZONE 0	Flammable atmosphere continuously present, or present for long periods (> 1000hrs/year).
ZONE 1	Flammable atmosphere is likely to occur in normal operation (> 10hrs/year, but < 1000hrs/year).
ZONE 2	Flammable atmosphere not likely to occur and if it occurs, will exist only for a short time (< 10hrs/year).

SELECTION OF APPARATUS

ZONE 0	
Ex ia	Intrinsic safety
Ex s	Special protection (approved for Zone 0)
ZONE 1	Zone 0 protection techniques
Ex d	Flameproof
Ex ib	Intrinsic safety
Ex p	Pressurisation for Zone 1
Ex p1	Purging for Zone 1
Ex m	Encapsulation
Ex e	Increased safety
Ex v	Ventilation for Zone 1
Ex s	Special protection for Zone 1
ZONE 2	Zone 0 and 1 protection techniques
Ex n	Non-incendive
Ex p	Pressurisation for Zone 2
Ex p1	Purging for Zone 2
Ex v	Ventilation for Zone 2
Ex s	Special protection for Zone 2

GAS CLASSIFICATION

HYDROGEN	Class 1 Group 11C
ETHYLENE	Class 1 Group 11B
PROPANE	Class 1 Group 11A
METHANE (MINING)	Class 1 Group 1

TEMPERATURE CLASSIFICATION

T CLASS	Maximum Surface Temperature
T1	450° C
T2	300° C
T3	200° C
T4	135° C
T5	100° C
T6	85° C



EXAMPLE OF CERTIFICATION LABEL MARKING

EX IA IIC T6